Martin Endreß Lukas Clemens Benjamin Rampp *Editors*

Strategies, Dispositions and Resources of Social Resilience

A Dialogue between Medieval Studies and Sociology



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Martin Endreß · Lukas Clemens · Benjamin Rampp Editors

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A Dialogue between Medieval Studies and Sociology

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Introduction

The concept of resilience is currently used in very diverse scientific fields and contexts. It has originally emerged in psychology, especially in studies concerning the psychology of the individual. From there it has spread to numerous disciplines and was further developed in inter-disciplinary work, particularly in the environmental sciences such as social ecology but also, more recently, in the social sciences and humanities. Especially in its practical use as well as in popular science, the concept is frequently taken to mean the opposite of vulnerability, that is, the sensitivity of a social unit towards existential threats through disruptions that can lead to its dissolution or destruction. In this sense, resilience can be taken to denote a property of social units. But at the same time, resilience and vulnerability may be conceptualised as complementary. From this perspective, vulnerability is a necessary condition of resilience and vice versa.

This latter approach to resilience, which emphasises the concept's ambivalences and the complex relationship between continuities and discontinuities, is the analytical starting point of the research group "Resilience. Phases of Societal Upheaval in Dialogue between Medieval Studies and Sociology", funded by the German Science Foundation (DFG) since 2016. The group examines societal upheavals between the 13th and 16th century and investigates how the concept of resilience, initially tailored to examine potentials of coping, adaptation, and transformation in contemporary societies, can be transferred to analyses in the Humanities and in Sociology concerning historical constellations. In doing so, the group explores the question whether the empirical and conceptual results of such analyses can be applied to the formation of a typology and the development of a theory of resilience relevant for both historical and contemporary issues. Within the research group, medievalist research is systematically connected with (sociology of knowledge based) sociological theory building. In its interdisciplinary research, the group develops historic-empirical typologies of processes, resources,

© The Editor(s) (if applicable) and The Author(s), under exclusive license to Springer Fachmedien Wiesbaden GmbH, part of Springer Nature 2020 M. Endress et al. (eds.), *Strategies, Dispositions and Resources of Social Resilience*, https://doi.org/10.1007/978-3-658-29059-7_1 strategies, and dispositions of resilience. These concepts will be made accessible for research and further discussion in the Humanities and Social Sciences. In particular, the research group aims at investigating the significance of different forms of social patterns of interpretation and self-description for the progression as well as for the results of resilience processes.

Although speaking of resilience has gained considerable currency in the recent past, it is as yet by no means common for medievalists and sociologists to utilize the concept. We find the term being used in a variety of ways and with a diverse array of meanings in numerous scientific, professional and even everyday contexts: Professional actors (practicing therapists, pedagogues, psychologists, economists) observe phenomena through a conceptual apparatus centered on resilience; academic disciplines, meanwhile, have begun to describe the everyday, professional, and political uses of the concept ("the jargon of resilience"), but also to scrutinize scientific perspectives that its use may open up.

When looking at how the term 'resilience' is typically used, it is striking that (1) it has a markedly positive charge (the resilience of "x" is good, desirable, etc.); that (2) it implies assumptions about the nature of threats as well as about appropriate responses and objectives; and that (3) it is conceived in terms of processes in which both the starting point and the end point seem obvious or unambiguous. These observations also appear to hold true for studies of history and culture published since the early 2000s.

By contrast, the Trier research group emphasizes an understanding of resilience which is normatively neutral and which is characterized by its ambiguity. Thus, it is a social-constructivist perspective which is fundamental to the group's approach to resilience. With this perspective, the research group examines how the concept of resilience can be productively transferred to analyses in the Humanities and in Sociology concerning historical constellations.

Within this research context, the international conference held in 2018 on "Strategies, Dispositions and Resources of Social Resilience. A Dialogue between Medieval History and Sociology" aimed at advancing the development of a genuinely social understanding of resilience and its analytical utilization in medieval contexts by addressing the following questions:

- Can we identify strategies in historical constellations that may be understood as resilience strategies, in the sense that they were meant to make specific historical actors or systems resilient, at least temporarily, against manifest or perceived threats?
- 2) In what way were these strategies influenced or structured by dispositions such as established practical knowledge, incorporated tradition or habitus, and the specific perception and interpretation of the identified threats?

- 3) How do specific types of resources, which are available in the respective contexts, frame strategies of resilience and the outcomes of these strategies?
- 4) What unanticipated consequences and side effects can be observed when specific types of strategies are being used, i.e., how can resilience processes be analysed beyond the focus on intentional strategies?

These questions are discussed in the contributions to this conference volume from empirical as well as theoretical vantage points, with the aim to interconnect and mutually enrich the different and interdisciplinary approaches to understanding processes of resilience and adaptive change in historical contexts. In doing so, the volume both highlights and discusses problems associated with the concept of resilience and at the same time develops a new analytical category for understanding socio-historical processes.

The three parts of this volume consist of theoretical contributions (part 1), medieval case studies (part 2) and general comments presented at the conference (part 3). All contributions underwent intensive revisions for publication.

Opening part 1 of this volume, Mark G. Edwards ("Mapping Resilience Theory: A Metatheoretical Exploration") is concerned with the various concepts and definitions of resilience, while his own focus lies primarily on a socio-ecological understanding of resilience. He problematizes a lack of metatheoretical reflexivity, which leads to conceptual and paradigm stretching, avoidance of the normative dimension of research, and a lack of integrative research. For the purpose of showing the potential and relevance of a metatheoretical perspective, Edwards points out that a metatheoretical approach could help to identify vulnerabilities of resilience as an ideological system. Given that the resilience approach has accommodated theories and concepts of various disciplines so far, the conceptual architecture with its metatheoretical and philosophical weaknesses could profit greatly from metatheoretical contributions. In order to develop a better understanding of this, Edwards elaborates on the polysemous character of the concept. He discusses the quality of resilience as a boundary object as well as a bridging concept, taking into consideration problems such as conceptual stretching and the difficulties of implementing the approach in research, policy and practice. A concise sketch of the historical and cultural background then shows the reconstructive metatheoretical role of socio-ecological resilience approaches, which leads Edwards to discussing the contemporary resilience discourse. In this way, he can point out numerous relevant aspects for contemporary resilience metatheory: integrative logics, the nature of change and development, reflexivity, resilience thinking, scaling and locality, and the normative-descriptive debate.

In the following contribution, *Martin Endreß* ("Strategies, Dispositions and Resources as Socio-Historical Constructions") discusses methods and terminology used in current resilience theory in view of a social-constructionist perspective, paying special attention to notions of processuality. Thus, he aims at a better understanding of the potential of resilience as an analytical concept for processual sociology and socio-historical analyses. He discusses the analytical tools of 'strategies', 'dispositions' and 'resources' with reference to their temporality, processuality and social-constructionist impact in general; the latter leading to a broader understanding of these three concepts as structurally ambivalent on an analytic level. Using the example of catastrophic events, he points out the necessity to temporalize the understanding of social reality on the level of resources, dispositions and strategies in order to fully understand the processuality of social construction. His final reflection focuses on relevant factors that need to be taken into consideration in order to identify the potential of a theory of socio-historical processes restructured in terms of resilience theory.

Closing the first part, Benjamin Rampp ("Strategies, Dispositions and Resources in Multi-Level Resilience Processes") shows how resilience as a heuristic perspective can profit from a social-constructivist, relational multi-level perspective, allowing the identification of the theoretical complexity of resilience processes. Following this idea, he discusses the potential of recent resilience approaches that allow for the analysis of non-linear social and socio-historical processes under consideration of multi-level dynamics. In an attempt to better understand processes that dialectically connect phenomena of continuity and discontinuity, multi-level dynamics - which address the aspects of scaling as well as relationality - are identified as of central importance. In view of the analytical problems of transferring these concepts to other disciplines - especially their essentialist and hierarchical characteristics -, the 'adaptive cycle' model and the socio-ecological concept of 'panarchy' are introduced as promising analytical tools. In order to face the challenges regarding these concepts, Rampp introduces Elias' processual and figurational approach to sociology, which allows for a better understanding of the importance of a dialectic approach to the agency/structure dichotomy. In this context, Rampp addresses problems regarding hierarchies in the analysis of multilevel resilience. Finally, in order to find a perspective facilitating an analytical approach to the interrelations of agency and structural effects, he introduces the methodological differentiation between 'strategies', 'resources', and 'dispositions' as dimensions of resilience processes, and points out their potential for an understanding of resilience as a heuristic perspective.

Part 2 of this volume is divided into three sections. While the contributions of the first section (2.1) primarily focus on strategies of resilience, the case studies of the second section (2.2) are mainly concerned with resources of resilience.

The contributions of the third section (2.3) dominantly analyse dispositions of resilience.

Section 2.1 starts with *Lukas Clemens*' study on the "Resources and Strategies of New Rulers: Early Angevin Rule in Southern Italy (1266–1309)". With the founding of the *Regnum Siciliae* in 1130, comprising the regions of Southern Italy, a time of political and social changes began which Clemens analyses from a perspective of resilience research, focusing on the means of coping, adaption, and transformation during that time. He centers his contribution around the first two Angevin kings of Sicily, Charles I and his son Charles II. Their policies must be understood before a background shaped by the Staufer king Frederick II's government, which reacted to the preceding political upheavals with various distinctive innovative measures, such as the Constitutions of Melfi in 1231, aimed at securing political rule and reforming the apparatus of state. Clemens contextualizes the following events and investigates the respective strategies of resilience employed by the newly-arrived Angevin rulers and their court together and in conjunction with the relevant resources and dispositions for them.

Beatrice von Lüpke ("Resilience as a Perspective on Medieval Literature: Political Songs and the First Margrave War (1449/50)") examines the potential of a resilience perspective on medieval literature. Lüpke suggests that resilience can broaden the perspective on literature revolving around disruptive events by analysing texts with regard to elements of preservation and the creation of group identities rather than providing information about, e.g., specific events. Lüpke, although considering the possible conceptual arbitrariness of resilience approaches, points out that the concept of resilience allows for a specific perspective that can widen the understanding of the social changes associated with disruptive events. Thus, she suggests that the analysis of literature which deals with these disruptive events can be interpreted as a force used to manage them. Her example for this new perspective on medieval literature concerns five political songs regarding the First Margrave War during the 15th century.

Peter Rückert ("Disruptive Environmental Change and Resilience: The German South-West in the Latter Middle Ages") begins with a short survey of the current discussions about resilience as a concept for environmental history in Germany. He then outlines the environmental changes that took place in the German South-West in the later Middle Ages, describing the development from the "booming" High Middle Ages to the crisis of the 14th century and, focusing on climatic changes and disruptions, to the beginning of the "Little Ice Age". Against this background, certain changes in settlement patterns and of landscape in general are exemplarily reconstructed. By tracing the phenomenon of deserted villages (*Wüstungen*), Rückert offers insights into demographic decline and shifts as well as movements of population. As signals of crisis, these well-known facts demand social and economic explanation. The geographic and social movement of late medieval society into the towns, the rural exodus (*Landflucht*), thus has to foster further discussion, especially in terms of the prominent connection between resilience and economy. Correspondingly, Rückert also highlights the counter-movements which can be observed in the decades around 1500 with a repopulation of deserted areas.

Gerrit Jasper Schenk ("More Resilient with Mars or Mary? Constructing a Myth and Reclaiming Public Space after the Destruction of the Old Bridge of Florence 1333") examines the case of the Ponte Vecchio, the Old Bridge of Florence, as to understand the complexity of it as a sign of architecture and the various social and political implications connected to it. This includes a consideration of the meaning of the bridge at a particular time for a particular group. Of central importance is the destruction of the bridge in 1333 and its reconstruction around 1345 as well as the politically motivated narrative regarding a statue associated with the bridge written by the chronicler Giovanni Villani in the 14th century. In a first step, the history of the bridge is introduced including the destructions and reconstructions of the bridge as well as the respective political agendas. Secondly, Villani's narrative on the statue associated with the bridge and the various interests which play their parts in this narrative are discussed, which allows for a better understanding of the meanings associated with the bridge and elucidates the struggles for interpretative dominance and power. After introducing the theoretical concepts necessary for the further analysis (which include criticality, vulnerability and resilience), Schenk applies these concepts to the case of the destruction and reconstruction of the Ponte Vecchio, which leads to the interpretation of its reconstruction as a twofold resilience strategy.

Markus A. Denzel ("How to Make an Enterprise Resilient: Methodological Questions and Evidence from the Past") focuses on the topic of resilience management, exploring how the concept can be applied to examples from the past, beginning with 15th century Florence. The general question is whether resilience management can promote the development of company structures. Initially, two questions are answered: How can an enterprise be made resilient, and how can resilience management in a business-historical and microeconomic context be analysed? This investigation is followed by a sample analysis of the Fugger family, used in order to develop a better understanding of resilience management in the past. Denzel concludes by listing the advantages of resilience management under consideration of past developments.

The analyses of resources of resilience in section 2.2 is opened by *Julia Itin's* contribution ("Fractured History. Jewish Sources and Narratives of the Plague and of the Black Death Persecutions"). In an approach to develop a better understanding of narrative patterns of Jewish resilience, she analyses how psychological resil-

ience is created and reproduced in narratives of individual and collective trauma. The capacity of these narratives to function as coping mechanisms for the Jewish community is illustrated through analysis and contextualization of a variety of historical texts. Different forms of trauma – disease, personal loss, mass persecutions – are processed in recursive narrative practices that can be described by the means of the Möbius loop of the adaptive cycle. Subsequently, Itin introduces a historical perspective on recurring patterns of processing trauma in Jewish narratives and thereby supports an understanding of the origins of Jewish literature as an archiving process of a living oral tradition after a catastrophic disruption that ultimately reinforces the narrative of a resilient Jewish people.

Heikki Pihlajamäki ("Medieval Swedish Provincial Laws as Example of Resilience?") investigates how concepts of resilience fit medieval legal history. At the centre of his contribution are the Nordic medieval laws of Denmark, Iceland, Norway, and Sweden. Between the 13th and 15th century, the customary laws of these countries were put into writing, and as such they are discussed with regard to their function as instruments of power and resilience. Of specific interest are the relevant circumstances during the times these laws were put into writing as well as the various influences Scandinavian law was subjected to, including the interests of the Church, kings, and provincial communities, which remained relevant during the two main waves of Scandinavian legislation: provincial law and the national laws of Norway and Sweden. In order to point out the possible importance of resilience, Pihlajamäki clarifies the concept of customary law (in contrast to royal and canon law as well as learned laws). This allows for the analysis of legal changes with respect to foreign influences and the involved parties such as communities and political authorities. In doing so, the question is addressed whether resilience can productively serve as a concept to investigate these changes or whether other concepts, such as that of path-dependency, could provide similarly fruitful results.

Thomas Rüfner ("Tipping the Scales of Justice: Roman Law as a Resource in Medieval Legal Discourse") also approaches the developments of the law from the perspective of resilience – under the consideration that law and legal history only slowly adapt and adjust according to new ideas and intellectual paradigms. Rüfner investigates how law was put to use as a resilience resource in late-medieval Italy. Following a concise introduction to the structure of the *ius commune* and some information about the content and use of legal *consilia*, the example of Baldus de Ubaldis's (d. 1400) work on monetary debasement is discussed in further detail. Baldus's reasoning is explained step-by-step and evaluated under consideration of the interests and consequences of the realist approach as represented by Baldus. Analyses such as this, Rüfner argues, lead to a better understanding of the law as resilience resource regarding disruptive events during the investigated period of time.

Section 2.3 starts with a study by Christoph Cluse ("Picking up the Pieces. Modelling the Fragmentary Evidence for Jewish Resilience in the German Kingdom during the Second Half of the 14th Century"). While previous research was concerned with causes and effects of anti-Jewish violence taking place since the late-13th century, Cluse focuses on aspects of resilience regarding the Jewish minority in later medieval Ashkenaz. His sources are letters, taxation records, community censuses, moneylending contracts, quitclaims, legal and political documents. In a first step, three phases of intensified anti-Jewish measures are introduced: the Black Death years, a period of violence and government discrimination beginning around 1384, and the years around 1420, when the policy of expelling Jews was more widely adopted in the later medieval Germany. These instances can be analysed by means of the adaptive cycle and the concept of panarchy which allows for considering the relationality of resilience concepts. Cluse calls for caution against possible simplifications that might arise due to the socio-ecological background of the adaptive cycle concept and which could lead to the dangerous assumption that anti-Jewish violence is part of a natural course of events.

Tim Soens ("Resilience in Historical Disaster Studies: Pitfalls and Opportunities") discusses the theoretical changes in resilience concepts in disaster studies, beginning with Holling's publication on resilience in the early 1970s. Taking account of the adaption of new ideas into resilience theory so far, he suggests guidelines for using resilience concepts as means of studying historical disasters in future research. In a first step, the use of resilience in historical literature on past disasters is investigated, followed by a step-by-step analysis of coastal flood disasters in the history of the North Sea Area. With this example and by subdividing the analysis into resilience dispositions, resilience strategies and resources of resilience, Soens investigates the problems and advantages of an alternative processual perspective regarding resilience.

A final integral part of the conference was the invitation of four colleagues to act as critical commentators on the presentations and the cross-sectional discussions. The commentators were also asked to present their overall impressions of the conference in concluding statements, and to formulate results such as tasks for upcoming research. In their subsequently condensed written form, these contributions form the third part of this volume. At the same time, they constitute a constructive-critical summary of both the discussions during the conference and the revised versions of the papers published in the present volume.

Bo Tackenberg and Tim Lukas ("Resilience. Potentials and Challenges of an Interdisciplinary Perspective") provide observations on the incentives and general objectives central for the individual contributions of this book. They clarify the advantages of resilience as a boundary object for a multi-perspective approach which facilitates a link between medieval research and knowledge-sociologicalled theory formation. This offers the opportunity of developing historical-empirical typologies of resilience processes, resources, strategies and dispositions. Within the framework of a historical-comparative approach, these typologies contribute to a deepened theoretical understanding of the modern concept of resilience. From a theoretical perspective on resilience, Tackenberg and Lukas argue that a concept which aims at strengthening the ability to resist, adapt and transform and which furthermore employs Holling's model of adaptive cycles may help to gain more application-oriented knowledge for many modern problem situations as well.

Thomas Schilling ("Toward as Resilience Theory that Embraces Broad Temporal and Scalar Perspective") concisely explains the relevance of scaling for resilience research and emphasises that, especially in the context of more complex social systems, changes on every single level can have far-reaching consequences on higher or lower levels. Moreover, resilience-related changes can be in favor of one entity over another, which reflects the normative properties of resilience. Schilling accentuates that sufficiently analysing these cross-scale interactions requires a properly set reference frame. He shows that a broader temporal perspective – considering the relation between resilience, adaptation, and transformation – could provide insight into complex long-term transformation processes. His reflections of the contribution of this volume facilitates a perspective that stresses processuality rather than comparing states at different times.

The flexibility of the resilience concept allows it to be applied to various research fields. The application to such diverse empirical phenomena, however, requires the development of a generic understanding of resilience as well as a set of key features. Oliver Ibert ("Resilience as Process and Narration. Fictions, Opportunities and New Adventures of Collaborative Research at the Intersection of Social Sciences and History") elaborates on this problem by reviewing central aspects that need further consideration. He stresses the necessity of a social-constructivist perspective; the combined understanding of resilience and vulnerability; the dependency on knowledge about and perception of threats as they are reflected in resilience practices; the implicit normativity of resilience concepts and thus the importance to create an approach that can function as a second-order construction with the aim to better understand the complexities of resilience developments and their normative implications; the integration of immaterial and material elements without ontological differentiation; the consideration of spatiality and spatial categories as integral to social constructions of vulnerability and resilience; and finally, the necessity to differentiate between adaptation and adaptability for a more profound understanding of operations of preservation. Following these considerations, Ibert points out specific challenges for integrating a historical and a sociological perspective - as it has been put into practice in

this volume's contributions. He points out what each perspective can contribute to this undertaking; which conceptual tensions (e.g., distinct ontologies of narration and process analysis rooted in different disciplinary traditions) have to be negotiated; and what the possible advantages and disadvantages of the respective historical written sources are. For Ibert, the historical perspective has the advantage of providing access to the necessary expertise, empirical accounts, as well as facts and data of central importance to the long-term processes resilience concepts are concerned with; however, historians cannot – unlike social scientists – create primary data. Finally, Ibert introduces possible new ventures for interdisciplinary research on resilience: by opening up the perspective through the conceptual tension between innovation and resilience, possible destructive properties of resilience are introduced. Questions such as whether preservation of one unit impedes on another's and whether resilience is even a desired property could be taken into account more thoroughly.

We would like to warmly thank all involved colleagues and the contributors to this volume for the interesting and inspiring conversations we have had during our conference as well as in the process of preparing this volume. And we would like to particularly thank Carolin Retzlaff, Anke Bauer and Nina Schumacher for organising the conference as well as the student assistants without whose help an event like this would not have been possible at all. We gratefully acknowledge the support of the German Research Foundation (DFG) in funding our research group and the conference. Finally, the editors would like to thank Katharina Trampert very much for her indispensable help in the editorial completion of this volume. Our thanks also go to Christoph Cluse, member of the Trier research group, who has subjected a whole series of texts published here to critical readings in terms of both content and language. With this volume, the Research Group, the contributors and the editors hope to provide a further impetus for both a critical and a constructive discussion of the role and relevance of resilience in the context of the historical and social sciences.

Martin Endreß, Lukas Clemens, Benjamin Rampp

Part 1: Strategies, Dispositions and Resources – Theoretical Contributions



Mapping Resilience Theory: A Metatheoretical Exploration

Mark G. Edwards

1 Introduction

The very way in which a concept is defined and the nuance in which it is employed already embody to a certain degree a prejudgment concerning the outcome of the chain of ideas built upon it. (Mannheim, "Ideology and Utopia", p. 343)

There are the displacements and transformations of concepts ... they show that the history of a concept is not wholly and entirely that of its progressive refinement, its continuously increasing rationality, its abstraction gradient, but that of its various fields of constitution and validity, that of its successive rules of use, that of the many theoretical contexts in which it developed and matured. (Foucault, 1972, p. 8)

These opening quotes highlight two metatheoretical aspects of scientific concepts that are the focus of this chapter. First, complex concepts and theories are constituted by a kind of multilayered history in what they mean and how they are used. Second, those constitutive layers are always situated in normative contexts of human meaning making and goal seeking. Both these aspects point to the importance of stepping back and considering complex concepts such as resilience from a meta-level perspective (Gioia & Pitre, 1990). Resilience theory has an extensive research history and has appeared in many forms in different scientific disciplines over the decades. As a means for understanding the adaptive capacities of complex human and ecological systems, each expression of resilience theory has something to contribute to its contemporary usage. For example, the social disciplines have brought transformation perspectives, ideas of growth through adversity and the identification of resilient qualities (Richardson, 2002). The health disciplines have contributed process-related notions of resilience as relational and involving socio-cultural contexts for improving well-being and quality of life (Armitage, Béné,

Charles, Johnson, & Allison, 2012). The environmental sciences have emphasised system dynamics, non-linearity, thresholds and temporal and spatial scales (Folke 2016). All this has contributed to the development of the multilayered, interdisciplinary matrix of ideas, methods and activities that constitute contemporary resilience approaches to change and recovery.

Resilience research has contributed to our awareness and understanding of profound problems facing vulnerable individuals and human communities whether through poverty, social inequalities or degraded natural systems. It has produced new knowledge and directions for change in areas such as environmental governance (Chandler, 2014) and the monitoring of the planetary processes that underpin the wellbeing of social-ecological systems at all scales (Steffen et al., 2015b). I draw on these social-ecological perspectives to present resilience as a metatheory for guiding how we think about and behave towards the biosphere. In the following I want to interrogate resilience theory from an appreciative approach of constructive critical engagement. To consider its strengths but also critically assess how its developing conceptual complexity might be symptomatic of some deeper metatheoretical issues.

I begin with some metatheoretical reflections on resilience as an avenue for engaging with the current ideologies that drive human-nature interactions across the planet. I then discuss social-ecological perspectives on resilience and why are important scientific approaches for investigating how ideologies, or enacted systems of ideas, impact on global sustainability and human well-being (Sunderlin, 2003). Next, I look at some of the metatheoretical features of contemporary conceptualisations of resilience including a brief macro-historical analysis. In conclusion, I discuss some possibilities for developing the resilience lens and how it can be used to address global challenges.

2 Meta-Theoretical Reflections

2.1 What is metatheorizing?

Metatheorising is an important domain of scientific research but one that is frequently misrepresented and misunderstood (Edwards, 2014). The metaperspective is not an all-knowing position of objectivity but simply a viewpoint of reflexive appraisal similar to any scientific attitude of engaged observation. The aim here is to compare, to link, and explore multiple perspectives on resilience rather than propose some monological grand theory.

Metatheorising, or metatheoretical research, is the rigorous study of scientific theories and other abstract systems of ideas (Ritzer, 2001) and it is not a new en-

deavour. Researchers and scholars over the decades and centuries have engaged in the analysis of systems of thought and belief (Edwards, 2016). Contemporary researchers refer to different forms of meta-studies including metatheory, metamethod, meta-data-analysis (Bostrom, Gupta, & Thomas, 2009; Paterson, Thorne, Canam, & Jillings, 2001; Zhao, 1991). Metatheorizing is a scientific rather than a philosophical activity when it bases its analyses on a body of collected data (in this case theories, models and conceptual frameworks). To quote the statistician Paul Faust, "As data form the subject matter for theories, theories and other scientific products form a key subject matter for metatheory" (Faust, 2005, p. 1364).

Metatheoretical research can be done in many ways. A useful typology has been developed by Ritzer (2001) and Colomy (1991) that proposes four types of metatheorising based on the research aims. The first of these is metatheorising for understanding where systematic and integrative reviews are performed to understand the characteristics of the theoretical domain of interest. Metatheorising for understanding situates the plurality of views to gain knowledge of the domain, its range and limits and its key themes and contributions. There are many examples of systematic and integrative reviews in resilience research across many disciplines (Folke, 2006, 2016; Luthar, Cicchetti, & Becker, 2000; Ungar, Ghazinour, & Richter, 2013; Xu & Kajikawa, 2018) that perform this function of metatheoretical review. Second, metatheorizing can be used to build overarching frameworks that accommodate multiple perspectives in an interplay of lenses and "architectonics" (Peirce's term for the conceptual building blocks of theories (see Peirce, 1891)). Examples of this include the panarchy model of resilience developed by Gunderson and Holling (2002), the integrated resilience science of Masten (2015) and Richardson's resilience metatheory of child development (2002). A third form of metatheoretical endeavour is metatheorizing to prepare middle-range theory where abstract frameworks are used to propose middle-range hypotheses that can be tested empirically. There are many examples of this kind of metatheorising in residence research. For example, the theory of cascading regime shifts (Kinzig et al., 2006) is based on an application of resilience metatheory to the social world of economics, social regions and farming. The fourth aim of metatheorizing is for the critical assessment of conceptual systems (Colomy, 1991) and there are many examples of evaluative assessments of resilience (Joseph, 2013; Olsson, Jerneck, Thoren, Persson, & O'Byrne, 2015; Stone-Jovicich, 2015). It is with this fourth type of critical metatheorizing that this paper is concerned. Colomy argues that metatheorizing's most crucial contribution lies in assessing the relative merits of the assumptions and core theoretical dimensions of competing research programs (Colomy, 1991, p. 279). Metatheorising can assess the "underlying theoretical code that animates a tradition's programs and ... the strengths and limitations of the programs' theoretical logic" (Colomy, 1991, p. 279). These theoretical codes, or architectonics, are the constitutive conceptual constructs and relationship characteristics of a research program (Ritzer, 1991). Adopting a metaperspective on these architectonics of resilience appraoches provides a position to critically engage with both its contributions and shortcomings.

2.2 Resilience, metatheory and ideology

Ideologies are systems of ideas that organise and legitimate the activities and environments of groups and their members (Van Dijk, 1998). Ideology is not meant here as a pejorative term, but the recognition of the power of systems of ideas to shape history and behaviour. John Maynard Keynes famously said that: "The ideas of economists and political philosophers, both when they are right and when they are wrong are more powerful than is commonly understood. Indeed, the world is ruled by little else" (Keynes, 1936, p. 241). In terms of their outcomes, some ideologies are better than others for advancing human welfare. Some encourage our capacity to flourish together, others make it easier for us to enslave each other in imbalanced relationships of fear and unconsciousness. Some ideologies place few limits on the developmental potential of individuals and communities and others restrict those potentials to uphold certain vested interests and privileges. Given this, how we identify the relative value of different ideational systems in achieving sustaining forms of global prosperity is an important for social science research. Bhaskar states that:

The task of social science is to penetrate that demi-reality [the world of half-fulfilled potentials] through to the underlying reality and situate the conditions of possibility of the removal of illusion, of systematically false being. (Bhaskar, 2002, p. 55)

Bhaskar is pointing here to the layered nature of what is false and what is true as a function of what promotes human wellbeing and what unnecessarily limits it. Raising critical awareness of the systematic failures of dominant ideologies and proposing more balanced and enlivening alternatives is a particularly urgent task given the unfolding global environmental crisis. Looking at the emergence of resilience approaches within this context helps to explain some of its appeal and usefulness but also some of its vulnerabilities. Taken as an ideological system, resilience is subject to blind spots, reductionisms and other shortcomings as with any system of ideas and, as such, can be studied from a metatheoretical perspective to bring out those strengths and weaknesses. Metatheoretical research is ideal for the study of big pictures, complex theoretical systems and ideologies because it requires reflexive engagement with the diversity of perspectives (Gioia & Pitre, 1990). In his book "Ideology, Social Theory, and the Environment" William Sunderlin points out that:

Because competing ideologies shape our understanding of how the world works, an understanding of ideology has to be brought – deliberately, forthrightly, and systematically – to the stage of discussion about the environment. (2003, p. 4)

Systems of ideas, however abstract they might be, shape not only language and thought but the practical world of business, politics, education and all those social arenas of activity. Influential ideological systems are constitutive of the worlds we inhabit, irrespective of whether they are right or wrong, ethical or unethical, true or false. Ideologies, for good and ill, shape worldviews and social and physical environments in both deliberate and unintentional ways. Many researchers have studied ideology over the decades. For example, sociologist Pierre Bourdieu recognised that metatheory and ideology are matters of immense importance for understanding and changing society (Bourdieu, 1998; Susen, 2016). His metatheoretical system of field, habitas, doxa, practice, reflexivity, cultural, linguistic and social capital, and so on were offered as means for analysis but also as metatheoretical tools for raising critical awareness of the ideologies that inform our worlds. In an interesting paper on Bourdieu and Boltanski's "The production of the dominant ideology" (Bourdieu & Boltanski, 1976), Susen (2016) argues that ideology is the power that resides in dominant social actors to control the power-laden 'field' of structures that set the range of 'doxa' available to other actors. Hence, it is the task of ideology critique to "facilitate a critical reappropriation of the social world" (Susen, 2016). Susen argues that Bourdieu and Boltanski aimed to:

deconstruct the production of the dominant ideology through creating counter-hegemonic imaginaries, capable of challenging both the epistemic validity and the social legitimacy of established orthodoxies and thereby contributing to the construction of emancipatory realities. (Susen, 2016)

Contemporary forms of social-ecological resilience are challenging established orthodoxies and mainstream human activities that have resulted in current global environmental and social crises. Resilience is not only about stability but transformation (Gunderson & Holling, 2002). It does not assume a fundamental separation of the human from the natural but starts with interdependent socialecological systems (Folke, 2006). Social-ecological resilience provides direction for policy development by confronting incrementalism with notions of regime shifts, boundary transgressions and maladaptive systems (Folke, 2016). It aims not for the application of standard management practices but for polycentric forms of

stewardship (Ogden et al., 2013). What is also of interest here is that these transformative views of resilience are coming from the natural rather than the social sciences, from research institutes like the Stockholm Resilience Centre and The Resilience Alliance. These disciplines and research centres are closer to the unfolding crises in the Earth's natural systems and it is from them that more innovative notions of resilience science are emerging. Theoretical and methodological pluralism is one of the characteristics of contemporary science. Over the years, the resilience approach has accommodated constructs from many disciplines and fields. This integrative intent is readily seen in the different references to resilience as "metatheory" (Richardson, 2002), interdisciplinary perspective, paradigm (Linkov et al., 2014), discourse(McGreavy, 2016), and even as a 'science' in itself (Leslie & Kinzig, 2009). Current resilience research is typically metatheoretical in that it accommodates multiple approaches to the study of human and ecological systems. Writing from the discipline of clinical psychology, Richardson refers the "metatheory of resilience and resiliency" as providing a "needed paradigm to incorporate postmodern thinking" (Richardson, 2002, p. 307). Even from within this one discipline, he sees resilience metatheory as accommodating phenomenological, process-based and postmodern multidisciplinary contributions.

In the pages that follow, this architectonic-guided analysis will provide different perspectives on resilience research. For example, the introduction of the transformational change lens brings into play normative and teleological issues regarding the direction of change (Brown, 2014). How have resilience researchers dealt, then, with the contentious issue of the problem (and opportunity) of responding to normative questions from a natural science orientation? Additionally, the growing complexity of its conceptual architecture raises issues about the metatheoretical and philosophical weaknesses that resilience approaches might be subject to. Are we asking too much of this unifying concept? Has the resilience concept been extended beyond its capacity to provide a unique theoretical position? Inquiring into the architectonics of resilience and their relational engagements with contextual factors will be the main methodological process in the following analysis. I aim to do this from a perspective of integrative pluralism (Bhaskar, 1987; Dallmayr, 2010; Mitchell, 2004) and, following the lead of Stone-Jovicich (2015), to contribute to efforts to strengthen inter- and transdisciplinary inquiry into resilience metatheory.

2.3 A metatheoretical review of resilience

Resilience is a "polysemous concept" (Strunz, 2012, p. 113) in that it has multiple definitions appearing across different disciplines and time periods in its development. All these definitions, however, are related in some way and possess di-

vergent and convergent aspects making resilience rich ground for second-order, metatheoretical analysis. Definitions of complex theoretical constructs like resilience are often composed of definitive elements or "architectonics" and so the tracking of definitional changes over time can say a lot about a construct's overall metatheoretical development (emerging polysemy). If we look at resilience in this way (see Table 1) we see that several new lenses have been added over time and that these additions are somewhat connected with the increasing scale of application of resilience approaches. There has been a general trend to apply resilience from physical systems through more complex biological systems to highly complex social systems. An associated movement is seen in applications from micro-level through meso- to macro- and mundo-applications, although this also depends on whether resilience is being researched within psycho-social or bioecological contexts (cf. Quinlan, Berbés-Blázquez, Haider, & Peterson, 2016). The broadening scope of application is associated with increasingly multilayered conceptual complexity. The simpler constructions of earlier periods are retained, or at least reframed, within more elaborate conceptualisations of later periods. Hence, we see that the global (mundo) application of social-ecological resilience involves an impressive array of architectonic elements that preserve earlier elements. Consequently, resilience can be usefully applied all the way from micro-level entities such as individuals or local ecosystems to global systems of social-ecological sustainability (see Table 1). A recent metatheoretical analysis of social-ecological resilience identified and described the "fundamental conceptual elements" (Davidson et al., 2016) that constitute various types of resilience theories. These elements included such constructs as persistence, absorption of change, recovery, system identity, adaptability, renewal and transformability, collective (multilevel) capacities and processes.

An illustration of this increasing complexity is the addition of the architectonics of adaption and transformation to earlier understandings of resilience as persistence and durability. The notion of resilience as persistence, recovery or "bouncing back" (Holling, 1986) has been prevalent ever since its early usage in engineering and biological contexts. With the movement of resilience-ideas into ecology, bouncing back became supplemented by ideas of adaptability or, as I call it, bouncing around. Adaptability requires the capacity to align with and accommodate changing environments, that is, to 'stay on your toes', remain flexible, agile and 'bounce around'. As resilience applications shifted into the panarchy and social-ecological research contexts, the lens of transformation, or "bouncing forward" (Shaw, 2012), was added to include the notion of radical and deliberate change competencies. This progression from persistence, or bouncing back, to adaptability, or bouncing around, to transformation, or bouncing forward, is an inclusive process in that transformative resilience is also persistent and adapta-

| Form of Resilience | Scope of application | Source of architectonic | Key definitional elements (architectonics) |
|--|---|---|--|
| physical resilience | micro (material) | mechanical | mechanical stability, persistence (bounce back) |
| biological resilience | micro-meso (systemic) | biological | individual stability, persistence (bounce back) across multiple dimensions of biological ex- istence |
| psychological resilience | micro (individual) | human | individual stability, persistence (bounce back) across multiple dimensions of personal, mental and emotional life |
| ecological resilience | micro-meso- macro -macro (systemic) | ecological | ecological stability (bounce back) across multiple dimensions of biological life and ecological systems, adaptability (bounce around) to changing environmental conditions |
| social resilience | meso (social) | human | inter-personal and group-level stability, persistence, (bounce back) across multiple dimensions of life, adaptability (bounce around, and transformative capacities (bounce forward) |
| socio-ecological resilience | micro-mundo (individual, social & sys- temic) | ecological and human | social-ecological stability, persistence, adapta- bility and transformative potential across multiple dimensions of biological life, social- ecological systems at multiple scales from local to global, agency and resilience thinking |
| community resilience | meso-macro (social & sys- temic) | ecological and human | social-ecological stability, persistence, bounce back across multiple dimensions of biological life and social ecological systems, community adaptation that expresses collective resilience competencies |
| urban resilience | meso-macro (social & sys- temic) | mechanical, biological, ecological and human | Collective networking of resilience com- petencies of persistence, adaptability and transformative potential, the network of in- frastructures and community resources and capitals that can recover and reorientate communities |
| Earth system resilience (resilience thinking) | micro-meso- macro-mundo (individual, social & sys- temic) | mechanical, biological, ecological and human | Global scales of resilience that integrate multi- level capacities of social-ecological systems at national, regional, urban, community, local and micro scales, to develop resilience thinking emphasising the multilevel embed- dedness of social-ecological systems at every scale of the biosphere, non-linear dynamics, adaptive stewardship and polycentric gover- nance |

Table 1 Core elements in defining the polysemous nature of resilience

ble. But persistent systems may not be adaptable or transformative. The fossil fuelbased economic system might be able to bounce back after oil shocks, economic downturns and declines in one form of fossil fuel or other but it may not be able to adapt to new regulatory climates that limit fossil fuel use or respond to transformative imperatives in the building of alternative energy infrastructures.

Table 1 also highlights the conceptual stretching that resilience has undergone. Over the decades resilience has become both a "boundary object" and a "bridging concept" (Baggio, Brown, & Hellebrandt, 2015) identifying, spanning, and connecting many disciplines and fields (Xue, Wang, & Yang, 2018). While at first resilience was associated with relatively few architectonic features, it now includes an impressive and ambitious array of conceptual lenses that act to bracket (as a boundary object around a set of concepts and theories) and bridge (as a bridging concept between different sets of concepts and theories) numerous orientations to research from many disciplines (Folke, 2016). Hence, additional theoretical elements under the resilience umbrella have accumulated both through new applications and through theoretical responses to criticisms and the subsequent extension of its conceptual system by resilience scholars (see, for example, Davoudi et al., 2012). For example, the addition of the transformation lens came, at least in part, in response to the criticisms that system durability and adaptability did not capture the "bouncing forward", proactive agency that characterises human systems. The extended model of resilience as persistence, adaptive capacity and transformability of social-ecological systems (Folke, 2006) now accommodates a more proactive and politically-engaged presentation of resilience thinking. The downside of this extension is the problem of "conceptual traveling and conceptual stretching" (Collier & Mahon, 1993, p. 852). As Collier and Mahon note

As scholars seek to apply their models and hypotheses to more cases in the effort to achieve broader knowledge, they must often adapt their categories to fit new contexts. (Collier & Mahon, 1993, p. 852)

Resilience is now defined by many different theoretical elements and applied across a broad span of topics such that it is in danger of being conceptually overextended. There are macro-historical reasons for this process of conceptual extension that are useful for understanding this trend in the complexification of resilience ideas. I will discuss these reasons in a following section, for the moment I want to note that the growing complexity in resilience definitions and the array of architectonics that are now included within social-ecological resilience creates challenges for implementing the approach in research, policy and practice. It also makes the concept vulnerable to misunderstanding and misrepresentation. For example, there are still critiques of resilience that question its capacity to go beyond incremental adaptive change. They see resilience as "a buffer capacity for preserving what we have and recovering to where we were" (Davoudi, 2012, p. 302). Even though there are several architectonics that address these kinds of critiques, such misunderstandings are likely to arise in the future given the multilayered nature of social-ecological resilience.

2.4 Some historical and cultural context

The scientific study of resilience began around the same time in both human populations and in natural systems in the late 1960's and early 1970's and both have shared a focus on understanding the nature of change in systems responding to challenging environmental conditions and events. Additionally, ecological and social resilience research streams have provided new empirical domains for applying resilience ideas (Brown & Westaway, 2011; Stone-Jovicich, 2015). For example, Holling (1973) drew on psychological theories in his early elaborations on resilience and, in turn, social scientists have borrowed from ecological perspectives.

In early resilience views it was the engineering and closed system perspective that dominated. Resilience was about stability, equilibrium, meeting objective standards of living, ecological systems that support and maintain the status quo. It was about the constancy of the system, the capacity to resist disturbance and to conserve. The discourse was one of bouncing back to the state of the status quo that pre-existed some external shock or internal dilemma. Later resilience views embody a very different set of ontological assumptions and principles including the social-ecological interdependency of human systems, the radical transformability of those systems and that subjective mindsets and resilience thinking are central aspects of contemporary resilience research. The discourse here is one of bouncing forward to a normatively desired state based on sustainability principles and subjective intentions.

It is not coincidental that resilience approaches have multiplied during the "anthropogenic cocktail" of global crises (Travis, 2003, p. 467). Since the 1970s resilience has been proposed as an important perspective for understanding how natural and human systems respond to shocks and how they might be resourced and designed to develop greater adaptive and proactive capacities. Over that time, however, the natural science research on, for example, biodiversity loss, climate change, eutrophication, habitat destruction, toxicity sinks, antibiotic resistance and disease outbreaks, has shown that the crises are growing rapidly as human impacts on natural systems increase (Steffen, Broadgate, Deutsch, Gaffney, & Ludwig, 2015a). While scientific knowledge about the current and future impacts of these global problems and their human aetiology has grown immensely, the political and community will to address causes has lagged well behind. Scientific projects and research agendas have gradually emerged to study these problems with resilience theory prominent among them. Over time these projects have grown in scale, not only in the breadth of their application, disciplinary reach and social engagement, but also in their conceptual complexity. Resilience approaches now provide an overarching, integrative strategy and set of metatheoretical lenses for connecting multiple constructs, perspectives and research streams (Baggio et al., 2015). As a result, resilience has undergone a kind of grand theoretical inflation. While this is a significant issue, increasing the conceptual scope of a research paradigm to build coherency and integrative capacity of a field of research is, of itself, not grounds for criticism. Science and society need the analytical tools and conceptual frameworks that drive meta-level analyses so that alternatives to the narrower and more reductionist approaches (those, for example, that underpin unsustainable economies and practices) can be proposed and explored. Our instincts for caution around grand theory building should not preclude the development of meta-level scientific programs that have a crucial role to play in addressing global challenges. The challenge is how to do this in a deliberative and reflexive way that engages with multiple scientific and community stakeholders and employs methods that are up to the task.

Although it is not commonly acknowledged, one of the important contributions of social-ecological resilience approaches is that it performs precisely this reconstructive metatheoretical role. Resilience can accommodate multiple perspectives to assemble a critical standpoint that evaluates *and* problematises more mainstream understandings of human-nature interactions. As Nelson puts it "resilience theory can be (re)appropriated as a critical tool" (Nelson, 2014, p. 1). This adjudicative and critically reconstructive approach to meta-level research (Colomy, 1991) goes beyond the important but limited critiques that deconstructive postmodernism offers of, for example, unsustainable economic activities (Purdon, 2003). In this context, social-ecological resilience presents a new viewpoint or understanding that addresses some of the fundamental factors at play in unsustainable global human activity. Table 2 presents a list of differences between social-ecological and more mainstream perspectives for several aspects of the research process.

In general, the development of resilience research is moving from the earlier, mainstream perspective to the contemporary social-ecological resilience perspective. On the issue of sustainability and the growing environmental crises, resilience challenges the notion that society and nature can be understood as fundamentally separate entities and offers an integrative view of the relationship between human society and natural systems. The conceptual focus in social-ecological resilience

| Торіс | Mainstream Perspective | Social-Ecological Resilience |
|-----------------------------|--------------------------------------|---|
| global environmental crisis | society as separate from nature | from separation to integration |
| level of conceptual focus | dominance of middle-range science | emergence of meta-level science |
| role of researcher | passive objectivity | active agency |
| scale of research focus | local and regional | multiple scales including earth systems |
| politics and power | not relevant | keystone actors, activist research, policy impact |
| scientific knowledge | Disciplinary | inter, trans, meta-disciplinary |
| research frame | descriptive focus | descriptive-normative focus |
| ecological focus | local ecological systems | planetary boundaries multi-scale processes |
| governance | increasing concentration of power | polycentric governance |
| resilience concept | persistence, recovery and adaptation | social-ecological transformation |

Table 2 Historical context and the emergence of social-ecological resilience

moves from middle-range research and theory building to more encompassing theoretical frameworks and large-system applications. The researcher becomes actively involved in changing practices rather than assuming an objectivity regarding policy and change issues. Scientific knowledge is approached from inter- and transdisciplinary orientations rather than the disciplinary angle of just ecology or just psychology. The ecological focus centres on multi-scalar and planetary systems and processes rather than just the local or regional levels. Accordingly, resilience is to be understood as transformative and involving active agency rather than as about durability and incremental adaptation. As it moved out of a simply descriptive and "intransitive" (Bhaskar, 2008) mode of doing research, resilience research encountered the normative and "transitive" (Bhaskar, 2008) world of critical engagement with policy, change and social impact mode. Resilience now has an "implicit mix of normative and positive aspects" (Strunz, 2012, p. 114). Consequently, and with these historical contexts in mind, the conceptual development of social-