

Abstracts of the Conference

Understanding Resiliencies:
An Interdisciplinary Challenge.
Theories, Methodologies,
Approaches and Experiences

Conference

of the Leibniz Collaborative
Excellence-project *Resilience
factors in a diachronic and
intercultural perspective*
and the DFG-Research Unit
Resilienz

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40,000 Years of Human
CHALLENGES



RESILIENZ

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RESILIENZ
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1st Session

Resilience as an Integrative Concept?

Chair

Klaus Lieb

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Resilience. One Term, Diverse Concepts

Resilience is a trending topic in various disciplines not only in psychology, neuroscience or biology, but increasingly also in the humanities. The breadth in which resilience is studied poses a difficulty for a systematic integration of the state of knowledge. Thus, the definitions as well as corresponding operationalizations of resilience already differ greatly within one discipline. The presentation will first focus on the diversity of psychological conceptions of individual resilience. Roughly, a distinction can be made between the trait approach, the capacity approach, the process approach, and the outcome approach. An existing risk, in the sense of an aversive stress situation, can be seen as a *conditio sine qua non* for resilience. However, there is disagreement about which risk constellations can be considered as well as which endpoints can be described as resilience. The property and capacity approach is increasingly being supplemented, or even replaced, by a processual understanding of resilience, with different mechanisms being postulated. Another discourse is the question of specificity versus generalizability of resilience across different stress constellations. In both process and outcome perspectives, different methods for capturing different phenomena have been proposed in recent years. This presentation aims to provide food for thought on a possible integration of the different perspectives as well as on the transfer of concepts across disciplinary boundaries. Inter- and transdisciplinary research approaches require on the one hand a uniform understanding of concepts, but on the other hand also a sufficient plasticity in the adaptation of concepts to different problem areas as well as a connection to intradisciplinary discourses.

Resilience from Very Small to Very Large: Local to Planetary Dimensions of Dynamic Persistence

By resilience I mean the phenomenon of dynamic continuity or persistence of complex systems after a sudden disruption. Research on resilience thus requires a systemic approach and a concept of temporality. In each individual project, the system concept and the time concept must fit together in scale. Each project should be in relation to the overall approach and discuss references to other projects. The potential of cross-disciplinary resilience research lies in the integration of subject matter expertise for a topic that is relevant at all scales worldwide. As an anthropologist, I explain examples of resilience issues in the way of life of local communities. From a geo-anthropological perspective, I ask about anthropic resilience (with regional to planetary scales) in the face of deep-time path dependency and forward-looking in terms of habitability within ecosystems in the Anthropocene. The challenge is to actually decipher common questions. The motto for individual projects should be "What needs to go in, given our topic core?" and not at all "What is all interesting (somehow or to me)?" A first tension exists between empirically and more theory-oriented researchers. A second difference I see in the different will to explicitly seek explanations and to pursue model building and reduction as scientific goals. A third tension exists between purely research-oriented and normative-transformative or socio-critical orientation. Such tensions exist in resilience research, for example, one between cultural studies, anthropology, psychology, and archaeology, and also within different archaeological approaches.

Collaboration requires above all time, patience, and attentive listening. Interdisciplinary collaboration can succeed if (a) there is a genuinely shared core interest, (b) the disciplines maintain their particular strengths, and (c) one avoids woolly terms or overly open concepts and is sparing with neologisms. It is about integration instead of addition. Cross-disciplinary research is both difficult and always enriching.

Resilience – A Concept in Interdisciplinary Discourse

The term "resilience" has recently been used in various social sciences and the humanities to refer to research approaches, originating especially from social ecology and psychology, which focus on a special type of social processes: Strategies, resources and framework conditions are examined which, in the case of interacting "external" threats (such as natural disasters or social threats) and "internal" vulnerabilities, can potentially ensure the survival or preservation of individual and/or social "systems" – or even enable them to "grow" in the face of the challenge.

Against this background, the presentation will accentuate a processual understanding of resilience that focuses on the dialectic of continuities and discontinuities. This conception of open processuality distances itself from – firstly – a systemic point of reference for a resilience analysis, from – secondly – thinking in teleologies and from – thirdly – a normative understanding of resilience. It opens a social-constructive perspective of explanation for an analysis of objective possibilities.

As such a process-analytical perspective of observation, the resilience concept opens up inter- and transdisciplinary research possibilities in the short-, medium-, and especially long-term. The presentation will address the conditions and prerequisites of such research contexts as well as the challenges and problems associated with them and will develop some recommendations and suggestions for the structuring of interdisciplinary work.

2nd Session

Using Resilience as an Integrative Concept

Chair

Heide Frielinghaus

Johannes Gutenberg University Mainz

Top Level Research Area "40,000 Years of Human Challenges"

Democratic Resilience. Potentials of a New Concept in the Empirical Study of Democracy

Phenomena like democratic backsliding, the increasing clout of populist parties, processes of political polarization or citizens' apparent loss of support for democratic systems have been viewed as serious threats to the foundations of liberal and democratic institutions. In light of these challenges, some well-established concepts of democratic persistence – first and foremost the one of democratic consolidation – seem to have become obsolete (see Helgest et al. 2022). Political Science thus seeks new analytical concepts with the potential for building a predictive theory of democratic survival. In consequence, the concept of resilience has also found its way into political science, especially with a focus on democratic resilience (Boese et al. 2021; Merkel and Lührmann 2021). At the same time, the concept often remains undertheorized and is not coupled with adequate strategies for operationalization (Holloway and Manwaring 2022). We argue that several fundamental challenges must be addressed when adopting the concept of resilience for political analysis (see Holloway and Manwaring 2022). First and foremost, we must define what might prove to be resilient. In the context of democracy research, there are at least two possible options for that: either individual institutions or democratic regimes understood as a complex set of different institutions. Second, we must specify against what an institution or a regime might be resilient. Third, we must think about mechanisms enabling resilience. This leads to the fourth challenge, asking for the sources of (democratic) resilience.

Finally, we must address the measurement issue. While research on democratic resilience is still in its infancy and analyses of resilience mechanisms remain largely explorative, we intend to move the discussion forward by formulating the hypothesis that inclusive and deliberative institutional configurations promote a regime's proactive resilience in the face of polarization. Drawing on data from the Varieties of Democracy project and a comparison of the US and New Zealand cases, we specifically point to the relevance of electoral system design and deliberative regime quality for democratic resilience.

Resources of Resilience in the Ancient World: Research Problems and Perspectives

The DFG-Network "Resources of Resilience in the Ancient World: Ecological, social and cultural Systems between Persistence and Transformation" (Duration: Oct. 21- Oct. 23) studies how ancient societies dealt with, interpreted, and overcame processes of transformation and crisis. The term "resources of resilience" lays emphasis on the multidimensional and structural character of the different strategies of social assertiveness. With their focus on material practices, performative acts as well as narratives the network members analyze adaptive strategies and coping mechanisms of ancient societies. At the center stands the question what kind of mechanisms were used in order to withstand anthropogenic or non-anthropogenic events (wars, natural catastrophes etc.) and to counter the associated dislocations. My paper wants to present the key concepts of the network and to illustrate problems as well as perspectives that have so far arisen out of the interdisciplinary collaboration between ancient historians, archaeologists, and philologists. Apart from the terms and theories we will look at aspects that have played a role during all workshops of the network and that illustrate the benefits that come from integrating a resilience perspective on the hand: for instance, in the field of historical studies, the concept of resilience sharpens the view of the material foundations of social processes. On the other hand, we want to address open questions, for example on which properties/groups of a system can be considered "essential" in historical analysis. As I want argue, conclusive answers are not possible (?), but the question leads to a better understanding of the system and the modalities of historical change.

Understanding Resilience in the Early Byzantine Empire: Methodological and Theoretical Challenges

Political historians have drawn on modern 'ecological' resilience theories to explain the ability of the multi-nodal Byzantine state to absorb and deflect external stressors including major wars, bouts of bubonic plague, and climatic instability in the 6th-8th c. Resilience is thus understood as the continued existence of the Byzantine administrative system. There has been a strong reaction to these studies of 'resilience', mainly from historians who prefer to draw empirical conclusions from primary source analysis. Should historians frame pre-modern human experiences in modern, deterministic terms? Can we really apply the term 'resilient' to organisations or societies which changed so profoundly? What about the subjective experiences of populations distant from centres of political power? The problem is one of different evidence types and scales, both geographic and chronological – while Byzantine state structures survived long durée, and archaeology can tell us about the long-term ebbs and flows of socio-economic conditions, texts, in particular, make clear that many local communities suffered terribly short-term. Moreover, some of the policies implemented to ensure the survival of the Byzantine state in turn worsened conditions for lower social classes. How or whether these communities understood their own resilience is another problematic issue.

This paper will suggest that Byzantinists should be open to drawing upon multiple modern resilience theories to explain different types of resilience or its absence at difference scales within the Byzantine empire.

While ecological/systemic theories might be suitable for explaining the adaptability of the complex bureaucratic state over long periods of time, social and psychological theories would be preferable when trying to understand the short-term experiences of local individuals and communities. It is important to study vulnerability and crisis and not only resilience; change and rupture as well as never-ending continuity. This potentially leads to a more nuanced understanding of human experience and avoids downplaying the suffering of past individuals.

Key Note

Working Together to Explore Resilience Across Contexts: Opportunities and Challenges

In this talk I will explore the development of resilience ideas through a number of interdisciplinary research projects involving natural and social sciences, engineering, and humanities. I will discuss my experiences of how addressing the problem of defining system boundaries, developing a common language for theories of change, and choosing appropriate levels of abstraction may be barriers to collaboration but also may provide opportunities to see problems in new ways. I will use a number of case studies of 'social-ecological-technical systems' viewed from various disciplinary lenses to illustrate how collaborative research may enrich our understanding of the complex concept of resilience.

3rd Session

Interdisciplinary Research on Resilience Factors and Resilience Mechanisms: Approaches and Challenges

Chair

Benjamin Rampp

Trier University
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Resilience – From the Psychological Perspective to Interdisciplinary Research

Resilience research has a long tradition in psychology and life sciences. The first cohort studies were conducted over 60 years ago to investigate why children grow up healthy despite stressful social circumstances and later succeed in their careers. As a result of decades of research, we now define resilience as the maintenance or quick recovery of mental health despite stress or stressful life events. In this sense, this type of resilience research takes a strong individualistic approach, asking how individuals remain stable in stressful situations. Further key components are the temporal perspective, as resilience is always an outcome, and the relationship between stress and mental health, which we also call stressor reactivity. Related constructs are the description of tipping points and the phenomenon of post-traumatic growth.

In our research at the Leibniz Institute for Resilience Research, we identify resilience factors and their underlying resilience mechanisms in long-term studies and in experimental studies. In this research, interdisciplinary challenges arise in the cooperation between psychologists, medical doctors, neurobiologists and physicists, for example in the description of resilience phenomena on different scalar levels.

In order to open up the field of psychological resilience for interdisciplinary investigation, it makes sense to examine resilience phenomena at the level of social groups, as this opens up the possibility of illuminating resilience phenomena in a historical perspective. First results and difficulties of such an analysis are presented. A particular challenge is to develop a common language and coherent concepts in resilience research. However, it then opens up excellent opportunities to study resilience phenomena at different scalar levels from the individual to groups to ecosystems, financial markets and the consequences of climate change.

Resilience in Sport: Between Top Athletes and Patients with Chronic Fatigue

Common concepts of resilience attempt to combine adaptation and resistance in a conceptual framework. In biomedicine, resilience is described in part by the ability to largely maintain mental health in response to stressors. By analogy, sports medicine might examine a resilience phenomenon to physical exertion as stressors. Elite athletes can withstand physical stress and become more “resilient,” whereas the same stress would almost inevitably lead to somatic injury in non-elite athletes. Cause and effect are quantifiable in such a resilience setting with complementary measures describing potential “resilience factors.” Typically, elite individuals become more resilient by undergoing many different incremental adaptation processes, and progress in building physical resilience can be monitored to optimize incremental increases in physical load to improve maximal resilience. In such a simple framework of physical resilience, those who have the potential to achieve elite-like physical status through the so-called talent identification still cannot be identified. Are we not able to fully understand our “resilience factors”? It is now believed that we cannot identify physical talent because we are unable to understand, objectify and control the plethora of psychosocial, environmental or cultural factors that enable a talent to adapt and become elite.

On the other side of the physical extreme, some at-risk individuals are unable to tolerate a low level of physical stress without chronic disease, while such stress does not produce symptoms in non-at-risk individuals. This can be illustrated by the example of the Long-COVID syndrome.

We show that the only objectifiable factors that can be used to explain disease in people with severe Long-COVID syndrome are “resilience factors” typical of elite athletes. The absence of these factors explains, in principle, all Long-COVID symptoms except anosmia. We will show how individuals at risk can be enabled to adapt to physical stress and regain their physical resilience within months, and why this process will most likely benefit greatly from recent technological advances to overcome similar factors that hinder talents to become elite athletes.

Resilience seems to refer to a phenomenon that cannot be well described from a biomedical point of view, only. Other scientific fields could constantly contribute to improve the conceptual framework of resilience, which in turn would enable science to work with a constantly improved methodology to promote scientific discoveries.

Stefan Schreiber

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Resilience as Traveling Concept: When Archaeologists and Psychologists Meet Among the Etruscans

The uses of analytical and heuristic concepts like resilience are always tied to scientific and social conjunctures. These conjunctures are reinforced in particular when working in interdisciplinary research teams and collaborative projects. The fluctuations between disciplines in such projects create ambivalences that are difficult to grasp, but make a significant contribution. For these reasons, concepts such as resilience can be conceived as so-called “boundary objects”. For productive inter- and transdisciplinary collaboration, however, it is not enough to recognise the ambivalences and make the respective points of contact visible, e.g. through unequivocal definitions, as “boundary objects” do. Rather, the concept itself must be transformed, it must “travel”, as Mieke Bal put it. From our collaborative project “Resilience Factors”, in which archaeologists, psychologists and life scientists were involved, we would like to trace the uses and conceptualisations of resilience in their “travellings” in a case study “Etruscan Identities and Resilience in Republican and Early Imperial Italy”. As part of this project Paul Pasioka investigated the resilience of the Etruscan elites of the 4th and 3rd century BCE and the 1st century CE in this sub-project. The aim of the investigation was to identify resilience factors that allowed the elites to be resilient in the face of Roman conquest and occupation and the accompanying transformations.

Understanding Resiliencies

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In the process, the understanding of what resilience and resilience factors mean was transformed several times in order to be connectable to both psychological and archaeological research methodologies. The understanding of resilience shifted both on the scales from individual to collective resilience, and from present to reconstructed, past phenomena. These transformations change resilience from an observational perspective to a category of analysis, further to empirical phenomena and back to concept. At the same time, translations take place between the respective disciplines and languages. Reflecting on these transformations helped us to enable, though not necessarily facilitate, interdisciplinary communication.

Resilience Explored Across Time and Place. Psychology Meets Archaeology and Psychiatry

In this talk I will briefly introduce three projects that explored resilience (interventions) in an intercultural and diachronic perspective. In the first project by Blessin et al., resilience interventions across the world have been scrutinized in a systematic review and some important differences were uncovered. The second project by Erfurth et al. aimed to build on archeological findings to study present day people's coping with stress of environmental threats, specifically flooding at the North Sea. Finally, the project by Lehmann et al. looked into modern day conceptualizations of resilience factors and compared its statistical "power" to archeological evidence. Finally, I will briefly talk about possibilities of archaeology and psychology to learn from each other using the example of the Norse's extinction on Greenland.

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Integrating Archaeology and Psychology: A Test Study

A major goal of the Leibniz Excellence Project “Resilience Factors in Diachronic and Intercultural Perspective” was to bridge psychological and archaeological disciplines and insights into resilience. Within the project resilience is understood as the context-related ability of individuals, groups, and communities, to regain a state as close as possible or even better than the initial state or trajectory after exposure to stressors. Resilience factors are regarded as resources of biological, sociocultural, or biocultural nature that strongly correlate with a “resilient” outcome.

In our presentation, we will show how we integrated archaeology and psychology. In a first step we tested whether individual resilience factors established by the psychological sciences can be scaled up to the group level, the level usually analyzed in archeology. This set of studies observed individuals’ reports of how they overcame personal stressors compared to stressors that affected their group. While this upscaling is a well-known intellectual endeavor, we also wanted to explore whether it is possible to identify resilience factors in the archaeological record that had not yet been discussed as such in the context of the individual’s resilience.

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To do this, we chose a resilience factor that has been shown to be beneficial to groups in situations of upheaval and crisis across space and time – traditions and rituals that relate to the past – and tested its potency in facilitating individual coping with stressful situations, in this case the Covid 19 pandemic. One implication of traditions at the individual level that we measured was the extent of routinized behavior. This set of studies found that greater investments in routine practices, reflected in the pursuit of personal maintenance goals, predicted greater subsequent improvement in well-being after the peak of the third Covid 19 wave in Germany. We also found a similar relationship between maintenance and resilience at the trait level.

The main challenges we faced were integrating the different disciplinary approaches – methodological collectivism and methodological individualism – and translating and operationalizing the evidence from the archaeological record into a survey design. In our presentation, we will show how we dealt with these challenges and what we gained regarding our knowledge on resiliencies.

Summary and Perspectives

Moderator

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