

How Useful is the Concept of Resilience for Studying Individuals and Families with Low Resources?

Thinking about Resilience series

Mary Daly

January 2024



Innovate
UK

This project has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No Project 101060410 and Innovate UK, the UK's Innovation Agency.



rEUsilience

Risks, Resources and Inequalities: Increasing Resilience in European Families

Title: How Useful is the Concept of Resilience for Studying Individuals and Families with Low Resources?

Date: January 2024

Responsible organisation: University of Oxford

Author(s): Mary Daly

Citation: Daly, M. (2023) How Useful is the Concept of Resilience for Studying Individuals and Families with Low Resources?. *rEUsilience Thinking about Resilience Series*, 2023:3. DOI: <https://doi.org/10.31235/osf.io/dv5pb>

Acknowledgements: The insightful comments of Rense Nieuwenhuis and Wim Van Lancker on an earlier draft are gratefully acknowledged.



This contribution aims to clarify the application and utility of resilience to study and understand the situation of low-resource families. The thought exercise is grounded in the rEUsilience (*Risks, Resources and Inequalities: Increasing Resilience in European Families*) project which aims to understand how different low-resource families respond when they are faced with a range of socio-economic risks. The project's focus is on the relationships between resources, risks and the management of paid work and care and family lives. In essence, the rEUsilience project studies family-related behaviour and decision-making as they relate to coping with risks in contexts of low resources and seeks to place resilience in the context of familial practice and relationships, socio-economic exigencies and social policy provision. Whilst widely-used in some circles, resilience is still relatively rare in the social sciences (and especially in social policy) and so there are real questions to be posed about its 'transferability' and utility. In a pause for thought stance, this piece aims to subject the concept to critical scrutiny.

There are many reasons to pause when considering the application of resilience to social phenomena. One is that as a concept resilience has origins in quite different disciplinary fields; a second is that the exponential growth in the popularity of the concept has made for elision of different perspectives and a lack of specificity in the conceptualisation. It is almost assumed that because resilience is so popular in public and policy discourses that its relevance is self-evident and that the concept defines itself (Garrett 2016). This is not the case – as with any concept it needs definition; moreover, as a concept with deep origins in psychological and ecological thinking it has to be 'translated' and developed so as to have application for the study of social structures and processes (Keck and Sakdapolrak 2013; Olsson et al 2015; VanderPlaat 2015). One way to clarify the meanings and make a contribution is by, first, undertaking an assessment of the concept's key proclivities and, second, examining whether some other concepts can help address the identified weaknesses. Hence, the piece begins by outlining core thinking on resilience. What is it that the concept/field of study seeks to explicate and how does it do this? A second section queries the concept's theoretical rigour and reach, asking how robust it is in its own right and also from the perspective of explicating social processes. In both of these sections, several grounding ideas are highlighted but so, too, are weaknesses. And it is from thinking through the latter that other potentially useful concepts are identified. Specifically, the third section looks at what the concepts of vulnerability, resourcefulness and sustainability bring to the fore that might help overcome some of the weaknesses of the resilience concept for the analysis of social and family-related processes and outcomes.

The aim, then, is to undertake a critical conceptual analysis and engage with possible ways of refining resilience for the analysis of social phenomena in general and situations of low resources in particular. The piece conveys three main messages: resilience has quite a particular orientation towards operational effectiveness and system stability and reproduction; while it directs the focus at important phenomena, it might be wise to 'decentre' it for the purposes of studying personal and social processes; its usage and



application to social phenomena can be improved by grounding it in conceptions of vulnerability, resourcefulness and sustainability.

Origins and development of resilience as a concept

Research has identified at least 10 different approaches to resilience (Brand and Jax 2007). It is a vast and increasingly diverse (and social) literature. However, the concept has its main origins in two fields of study: psycho-social processes and ecological systems. In both, the thinking has developed from an initial focus on the persistence of entities to their adaptive capacity.

In psycho-social studies, the classic notion of resilience focuses on the capacity of individuals to adjust to shocks or a significant, usually negative or even traumatic, change. This perspective links individual traits and behaviour, viewing resilience in terms of protective factors which may take the form of intrinsic traits of character or orientation, acquired attributes or learned behaviours. Resilience is typically conceived in positive terms such as a healthy outlook, disposition or flourishing in the context of adverse circumstances (Harrison 2013; Ungar 2013). There are strong elements in it of 'a view from within', prioritising developmental capacities, self-regulation and self-discipline for the purpose of adaptation and 'recovery' (Mu 2020). As scholarship evolved, attention turned to identifying social processes as contributing to self-regulatory mechanisms. In this view, resilience is a process whereby individuals adapt by drawing not just on their own resources and capacities but those in their proximal environments to enable positive adaptation (Egeland et al 1993; Luthar et al 2000). The family is present in this literature but is often of interest as conditioning positive or negative outcomes for individuals. In essence, this framework views resilience as strengths-based, a product of the dynamic interaction between the individual's personal characteristics, their coping behaviours and engagement with their environments. There is a tendency to view resilience as an individual achievement (VanderPlaat 2013) and to emphasise resilience as a capacity that can be 'built' (Welsh 2014: 17).

In ecological systems thinking, the work of Holling (1973) is very influential. Against a view of equilibrium as static and as more or less inevitable after a disturbance, Holling developed a perspective on resilience as the persistence or durability of a system and its ability to absorb change and disturbance and still maintain the same relationships between its elements (equilibrium). This has been described as the engineering concept of resilience (Davoudi 2012). His intellectual goal was to define a complex notion of resilience that could account for the ability of an ecosystem to remain cohesive even when undergoing extreme disturbance (Walker and Cooper 2011: 146). In later work, Holling (2001) focused on the magnitude of disturbance that can be absorbed before the system transforms or crosses a threshold into a new state.



Thinking on the 'adaptive cycle' turned the attention to systems' capacity for absorption, the synergies involved and the characteristics that promote persistence and transformability (Gunderson and Holling 2002). This has been described as an evolutionary view of resilience because resilience is not a return to normality but the ability to change, adapt and transform (Davoudi 2012). Viewing the world as complex, non-linear and uncertain (rather than orderly and mechanical), this view of resilience allows access to social factors, making socio-ecological systems and the interaction of human-environment dynamics a major focus of attention (Berkes et al 2003; Cote and Nightingale 2012; Davoudi 2012). Among the concepts bestowed by the ecological resilience approach taken as a whole are buffer capacity, dynamic equilibria, lock-in, feedback loops, thresholds and self-organisation (Folke 2006; Olsson et al 2015). The understanding of the role for public policy as one of adaptive risk management has evolved from this perspective.

There are many reasons for the popularity of the concept. Some can be traced to the current environment and fears for the future. For example, in a context of a growing prevalence of large-scale disruptions, a concept that is centrally focused on disturbance and adjustment has signature appeal. Its capacity to speak to crisis and even disaster has currency in what Lerner (2011) has called 'a time of generalised crisis' when we are all expected to live with more and more uncertainty. Furthermore, resilience has a very strong positive resonance in emphasising assets and strengths for positive adjustment and durability of functioning and condition (sometimes without an extension of existing resources). Most of the literature highlights the avoidance of negative outcomes and/or the achievement of favourable outcomes. There are other features that appeal also. The concept places emphasis on individuals' or systems' own resources and reactive capacities; in line with other popular concepts (such as asset harvesting and even social investment), resilience places the emphasis on the entities (individual or collective agents or institutions) as architects of their own fate. This appeals on several grounds. First, the responsible, autonomous subject capable of adaptation, learning and self-regulation fits well with neoliberalism's elevation of 'self-sufficiency' and self-reliance as desirable conditions (Davoudi 2012; Garrett 2016). Second, as institutions and public resources become stretched, the question of how much individuals and families can bear without social protection or with a minimal level of support becomes vitally important. It is only a short step from this to thinking about whether resilience could become an organising principle of the welfare state and a driver of social policy reform.

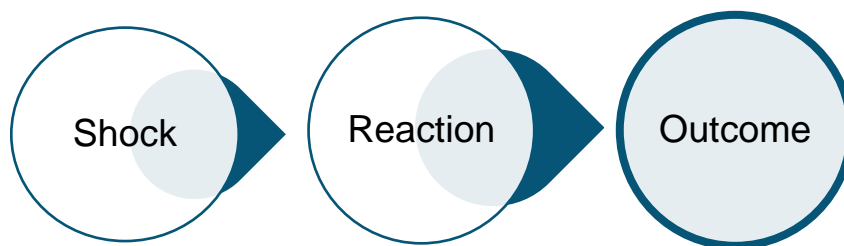


Subjecting the concept to critique

One inherent feature of resilience is its systemic focus – this gives it in its original form anyway the attractions of coherence and apparent completeness (Olsson et al 2015: 6). It also allows the simplification of extreme complexity (Welch 2014: 21).

Stripped to its core, resilience involves three elements in a relational and bounded sequence that can be depicted as in the diagram below: a shock or unexpected event occurs; there is reaction to it; and that reaction in the context of the shock determines whether the original entity or form of behaviour or practice has endured and/or emerged as stronger or weaker. The term ‘robustness’ comes to mind - an entity is considered resilient when it either ‘bounces back’ to an original condition or emerges stronger.

Figure 1 Classic Resilience Framework



The concept’s focus of interest is encompassed by this framework. Taken individually, each element is an idealisation, comprises sets of ideas and plays host to a core research question.

In regard to shock, the key research question asks: resilience to what? Drawing on systems thinking especially, shock is generally conceived of as an externally-induced disturbance or disruption, sometimes viewed as a crisis and often conceived of as unexpected. Reviewing the literature, Keck and Sakdapolrak (2013) identify three general categories of stressors that the social resilience literature has studied: natural hazards and disasters; natural resource management, resource scarcity and environmental variability; social change and development issues. In later thinking, threats or risks can take the place of shocks but there is still a strong sense of the challenges being unexpected or unknown. Critics of the concept have opened up a set of questions around the ‘shock’. One is whether the threat or precipitating event is always external – Turner et al (2003) suggest that it can be both internal and external.



A second is whether it is unpredictable. In this regard, some of the literature talks about pre-hazard conditions and some scholars have drawn attention to avoidance and preparation as relevant to the process (Shaw et al 2014). While there is some correction in the literature around these issues, questions persist about the nature of the occurrence, when the sequence actually starts and the role of ex-ante factors and conditions in a temporal sequence.

The second element - the reaction – represents the energy brought to the functioning of the unit. It hosts the question of what behaviours or activities are engaged in. The answer provided to this question by the classic resilience literature centres on the interaction between the forces being exerted and inherent resources to resist or adapt, including protective resources. The capacity of the unit for self-organisation is of interest as is the capacity for learning and adaptation. In a stretch, this can be conceived as agency, although it is a bounded and rather limited agency (McKeown et al 2022). ‘Coping strategies’ are a common way in which adaptive reaction is conceived. This is quite a familiar theme in the social literature – especially that on poverty and hardship studies (e.g., Daly and Kelly 2015) - and is one of the key lines of development in the social resilience literature. In a desire to develop a conceptualisation of social resilience, Keck and Sakdapolrak (2013) differentiate between absorptive agency, adaptive agency and transformative agency as three types of coping. They frame a typology around these different types encapsulating variations in the nature of the response in terms of being ex-post or ex-ante, the temporal scope (short- or long-term) and degree of change involved. This is a helpful way of categorising agency (Dagdeviren and Donoghue 2019) but a deeper understanding is needed. Developing a more profound understanding is problematic for much resilience thinking, mainly because its conception of agency tends to be reactive and bounded, underplaying agency that is preventive and that which extends beyond the given structure. Furthermore, there is an under-appreciation of agentic response or adaptation as involving processes such as negotiation, conversion of resources and transactional exchanges that are embedded in relationships. While some of the to-and-fro of active agency might be captured by feedback loops, whether such a conceptual apparatus sufficiently grasps the transactional and relational nature of exchange in human relationships is open to question.

The third element is the outcome and the main question fielded here is: What is the unit’s capacity to withstand shock and what is a stable state? In a quest for more elaborated thinking to the rather simple durability focus, researchers distinguish between resistance and ‘bounce back’, taking the former to refer to the ability of a system to block disruptive changes and remain relatively undisturbed, while the latter is the capacity to recover from shock and return to normal functioning (MacKinnon and Derickson 2013). Keck and Sakdapolrak (2013: 7) say that the shift involved in resilience (rather than stability) thinking emphasises those characteristics that enable the system to live with disturbance and instability and promote its inherent flexibility and strengths to increase its chances of persistence.



'Outcome' as part of the resilience process has been the subject of considerable critique, especially regarding the privileging of adaptation in the framework (Mu 2020) and the relative under-appreciation of the difference between, first, adaptation and transformation and, second, different forms of transformation, such as between transformation for the persistence of the system and transformation leading to profound change (Olsson et al 2015: 6). MacKinnon and Derickson (2013), following Lang (2010), are not buying the claims of resilience as significantly different to stability as they view the resilience concept as favouring the restoration of existing systemic relations rather than their transformation. Moreover, some outcomes are of more interest to resilience than others; a 'boundedness' is imposed on outcomes by virtue of whether they were to be expected or not (Mohaupt 2009). The concept may, then, be antithetical to change. Underplaying of change is identified by Olsson et al (2015: 2) as one of the reasons why social science - with its preference for studying social change over stability - is rather frosty to the resilience concept. There are also questions about the longer-term consequences of adjustment or adaptation - adjusting to a bad situation may endanger long-term functioning for example (Mu 2020).

Remedying Problems

These are all serious problems but it is possible to find ways to think about resolving them. The way I choose to do so in this paper is to expand the thought frame and 'decentre' resilience. What this means is grounding the study of resilience in other concepts. Among other things, this avoids some of the 'concept stretching' that characterises the existing literature on resilience. There are three concepts in particular that help: vulnerability, resourcefulness and sustainability. Each has an application to one or more of the individual elements in the classic resilience framework as well as to the framework overall.

To take the 'shock' first, as discussed above there is a question about what 'shock' encompasses. What are the properties of a shock? Does a shock always have to be sudden? Is there a scale threshold that has to be passed for an occurrence to constitute a shock? Thinking critically about suddenness and scale suggests that only in rare cases can the shock be thought of or explained without reference to the context within which it occurs. So what is a large shock in some instances may be a minor blip in others. And while there are shocks that come out of the blue, most can be anticipated. The underlying question is about when the resilience-precipitating event begins or - in Welsh's (2014: 21) words - when does change enter the system? This leads to reflection on the temporal patterning aspect of context and how patterns established over time will frame and shape the shock itself (and may even prevent a shock occurring or alter its scale).



Missing especially from the 'shock' conception is reference to the context and trajectory that have led people to their current situation. This includes people history, for example, and the course of their lives and circumstances to the point being investigated, and how both background and trajectory feed into the current situation. While it can be completely external, the shock itself is undoubtedly shaped by the temporal patterning in the unfolding of events, circumstances and experiences in people's situation over time (and certainly preceding the shock). It may even originate from these, rather than originating in an unknown 'elsewhere'. Understanding and taking account of trajectory and the fact that the shock may have emerged out of people's living situation adds a potential causal line of analysis.

The concept of vulnerability encapsulates these ideas. Vulnerability is most widely seen as a condition, encompassing both susceptibility or exposure to risk or shock and the availability of the resources for responding or coping in a context of unequal resource distribution. Some of the most relevant work on vulnerability has researched vulnerability to psychological disorders (Vansteenkiste and Ryan 2013); the relationship between vulnerability and poverty (e.g., Kamanu and Morduch 2002); vulnerability as a factor in disaster risk (Fekete et al 2014); and in vulnerability as a factor in food security (Pavoliita et al 2016). Rather than assuming status quo regarding the likelihood of a shock, the perspective claims that it is entities' vulnerability that potentially exposes them to experiencing a shock rather than a shock being random. For example, people with low training or education are far more susceptible to the 'shock' of unemployment than those who are highly educated. Plus – to continue the thread regarding non-randomness – the scale of unemployment as a shock is more likely to be higher for those with low education than their better-educated counterparts. The conditions that give rise to adversity and risk are therefore brought to attention,

Vulnerability extends beyond the shock to speak also to the second element of the resilience sequence, the reaction. In particular, the concept's inherent orientation to 'situatedness' or positionality means that the capacity to act cannot be defined irrespective of resources. Miller et al (2010) point to a common starting point of different approaches to vulnerability: how various social groups or communities differ in terms of their coping capacity. So, using the lens of vulnerability leads to the expectation that the reaction precipitated can vary according to differential resource access, entitlements, political economy and power relations (Blaikie et al 1994; Eakin and Luers 2006).

However, while vulnerability helps to explicate the circumstance-situational dimensions, it does not problematise agency in the context of resource use. This is where the second notion - resourcefulness - comes in. The gap it fills is in relation to understanding how people act or react and how they use their resources to effect agency of various types (preventive, for example, as well as reactive). Whereas resilience takes much for granted about agency, resourcefulness is a description of behavioural and cognitive engagement with resources viewed broadly.



It is less interested in categorising behaviours – as in the three types of capacity identified by Keck and Sakdapolrak (2013) (absorption, adaptation and transformation) – than in looking at how agency is affected through resource availability and use. MacKinnon and Dickerson (2013) develop the concept of resourcefulness specifically in an effort to foster a ‘counter-systemic’ mode of thought (and practice) that transcends systems theory and the view of resilience it bequeaths. They describe resourcefulness as process- and relations-oriented and they develop it especially with communities as the units of analysis.¹ They start from a recognition of the uneven distribution of material resources and the associated difficulties of ‘disadvantaged’ groups and communities to access the levers of social change. Resourcefulness, as they conceive of it, is better understood as a process, rather than something individuals or communities possess. They identify the following four key elements in conditioning agency (in setting out an initial framework): (1) Resources (conceived to include inequality and issues of maldistribution so as to differentiate resourcefulness from mainstream conceptions of resilience which take existing social relations for granted); (2) Skill sets and technical knowledge (which they define to include expertise and knowledge in governmental procedures, financial and economic knowledge, basic computing and technology as well as skills for communicating that knowledge); (3) Indigenous and ‘folk’ knowledge (by which they mean alternative and shared ways of knowing generated by experiences, practices and perceptions); (4) Recognition (which confers group status upon the community in question on the basis of common attributes and a shared understanding that the community is itself a subject of rights and a receiving unit for state resources). It is clear that these are of different orders, especially the last one which is not a property of units, but something conferred on them by other entities. This ambiguity notwithstanding, resourcefulness focuses centrally on agency and problematises not just the capacity to act in a situation but also the nature of the action taken, what resources are used and how.

The third element in the resilience framework has a strong sense of capacity to live with or overcome disturbance. One of the problems here is that the framework thinks in terms of rather short time windows. It tends not to consider the outcome over time, downplaying the question of how long a behavioural response needs to last for it to be ordained a durable outcome. This brings up the matter and concept of sustainability. This concept shares with resilience an interest in outcomes but it not only extends the temporal dimension into the future but brings a strong concern about future viability. As is well known, sustainability has deep roots in work on development and climate change. Sustainability was initially defined by the World Commission on Environment and Development (the so-called Brundtland definition) (United Nations 1987: 43) as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

¹ It is also developed as a concept in psychology (e.g., Matheny et al 1993) and in business and labour studies (e.g., Michaelis et al 2022).



Cuesta et al (2022: 3) among other scholars, point out that there is no consensus on how to define social sustainability however.² But there are two core elements to the thinking. One is that social sustainability has an intertemporal focus and a concern about how the use of resources and adaptations in the here and now might be dysfunctional or lead to long-term vulnerability (Cuesta et al 2022: 4). It questions both the positive view of adaptation itself and the long-term implications of, say, running down resources to secure continued short-term functioning. In this it has resonance with the concept of depletion which is developed by Rai et al (2014) to relate especially to situations of care-giving and processes of social reproduction. Hence, not only is sustainability future-oriented but it countenances the possibility of transformation. A second key feature and advantage in the present context is scale – sustainability can cross scale and spatialities. For example, Cuesta et al (2022) work with the notion of sustainable communities as a concept that is applicable at multiple scales and levels and the idea of sustainable family life also has meaning from this perspective.

Drawing conclusions

As this discussion has demonstrated, there is more than one approach to resilience and the thinking on the concept has become more complex and diverse over time. Miller et al (2010) suggest the utility of making a distinction between ‘specified’ and ‘general resilience’. Their underlying concern – following Carpenter et al (2001) - is to be explicit about what one’s system or unit of analysis is and that resilience-oriented interventions in one system may affect others. There is another side to specificity as well – resilience is a concept with origins in epistemic communities and methodologies which are outside of the social sciences. Against this backdrop, the aim of this discussion piece has been to place the concept of resilience under the spotlight in regard to its application to social phenomena (the behaviours of individuals, families and households), strip it back to core elements and, having identified strengths and weaknesses, find ways to move critical thinking forward.

While profound critiques can be made of both the concept and its rise in popularity, I am not rejecting resilience as a focus of study in low-resource contexts but, rather, seeking to reframe it in a stance that sees reliance as focusing on something that is important but has too little nuance for the study of social relations and social structures. Towards this end, this piece has identified and drawn attention to signature blind spots in the concept’s core ideas (albeit through an over-simplified framework).

² Leading them to proceed on what they acknowledge to be a pragmatic basis which means taking available indicators as their guide - thereby swelling the ranks of the many who use social sustainability without elaborating the conceptual underpinnings being guided instead by plausibility and current political agenda (Littig and Griessler 2005).



These centred on the significance of context and trajectory, the perception and place of agency as complex, (human) relational and possibly preventive, and the recognition of outcome as being of *longue-durée* and possibly involving change or transformation rather than just stability. Three other concepts were briefly discussed – vulnerability, resourcefulness and sustainability – to identify possible ways of deepening the analysis. These are not claimed as ‘miracle concepts’ and, indeed, have weaknesses and contestations of their own (which have not been highlighted here as the focus has been on resilience). Nor is the suggestion to replace resilience with any of these – they are better treated as ‘grounding concepts’ at this stage until further work can be done on them in a context of critically studying resilience.

The concept of vulnerability already comes with a notion of inequality and predisposition to risk exposure built in. Moreover, by including a broad view of environment and setting including trajectory, it renders redundant the question of whether the ‘shock’ is random or not and introduces the possibility that the shock and risks are conditioned by pre-existing condition. It therefore questions when the sequence is initiated. The concept of resourcefulness helps to both problematise and explicate the reaction, in the sense of taking a complex view of agency as governed by the prevailing resources, capacities and relations. Moreover, it conceives of agency as relational and not just rational (judged in terms of predictability). The third concept - sustainability – extends the temporal lens into the future and questions whether the outcome involves short-term functioning or continuation as against a more long-term patterning of problems and ‘solutions’ (including the degradation of coping and other resources) leading to change.

There are matters that the current discussion leaves unresolved. The normative element is one such continuing issue. Among the most significant general points of critique of resilience are its inherent, and often unquestioned, normative bias. Not just is resilience portrayed positively – underpinned by a vision of harmony and ‘successful functioning’ as stability (for both individuals and systems) – but only some categories of individuals and populations are seen to need to be resilient (Park et al 2020). Normative notions of optimisation are present also in resourcefulness - which favours action that best utilises resources - just as sustainability has a normative bias towards long-term over-short-term functioning. It is not clear to me at this stage how to go beyond these weaknesses and whether a predetermined outcome has to be specified as resilience. Moreover, the question of temporal patterning is also difficult (and troubles all the concepts here to some extent). While the foregoing discussion has introduced complexity to temporal patterning in the form of the unfolding of events, circumstances and experiences in people’s situation over time and of circumstance or condition as shaped by a cumulation or clustering of factors and events, it has also tended to reinforce the idea of discrete stages and a bounded structure/agency process. This remains unsatisfactory. It is challenged especially by perspectives which start from an interest in processes - these view actions as recursive, relational and interdependent



(Mu 2020: 19). Change also requires further thought. At issue here is a system's capacity for transformation, when a new pathway is established and whether it can be brought about by adaptation or resistance.

Clearly, there is more thinking to be done.



References

- Berkes, F., Colding, J. and Folke, C. (eds) (2003) *Navigating Social-Ecological Systems: Building Resilience for Complexity and Change*, Cambridge: Cambridge University Press.
- Blaikie, P., Cannon, T., Davis, I. and Wisner, B. (1994) *At Risk: Natural Hazards, People's Vulnerability and Disasters*, London: Routledge.
- Brand, F.S. and Jax, K. (2007) 'Focusing the meaning(s) of resilience: Resilience as a descriptive concept and a boundary object', *Ecology and Society*, 12 (1): 23-39.
- Carpenter, S., Walker, B., Anderies, J. M. and Abel, N. (2001) 'From metaphor to measurement: Resilience of what to what?', *Ecosystems*, 4: 765-781.
- Cote, M. and Nightingale, A. J. (2012) 'Resilience thinking meets social theory: Situating social change in socio-ecological systems', *Progress in Human Geography*, 36 (4): 475-489.
- Cuesta, J., Madrigal, L. and Pecorari, N. (2022) *Social Sustainability, Poverty, and Income*, World Bank Group Policy Research Working Paper 10085.
- Dagdeviren, H. and Donoghue, M. (2019) 'Resilience, agency and coping with hardship: Evidence from Europe during the Great Recession', *Journal of Social Policy*, 48 (3): 547-567.
- Daly, M. and Kelly, G. (2015) *Families and Poverty: Everyday Life on a Low Income*, Bristol: Policy Press.
- Davoudi, S. (2012) 'Resilience: A bridging concept or a dead end?', *Planning Theory & Practice*, 13, 2: 299-307.
- Eakin, H. and Luers, A.L. (2006) 'Assessing the vulnerability of social-environmental systems', *Annual Review of Environment and Resources*, 31: 365-94.
- Egeland, B., Carlson, E. and Sroufe, L.A. (1993) 'Resilience as process', *Development and Psychopathology* 5 (4): 517-528.
- Fekete, A., Hufschmidt, G. and Kruse, S. (2014) 'Benefits and challenges of resilience and vulnerability for disaster risk management', *International Journal of Disaster Risk Science*, 5: 3-20.
- Folke, C. (2006) 'Resilience: The emergence of a perspective for social-ecological systems analysis', *Global Environmental Change*, 16 (3): 253-267.
- Garrett, P.M. (2016) 'Questioning tales of 'ordinary magic': 'Resilience' and neo-liberal reasoning', *British Journal of Social Work*, 46: 1909-1925.



Gunderson, L. and Holling, C.S. (eds) (2002) *Panarchy: Understanding Transformations in Human and Natural Systems*, Washington, D.C.: Island Press.

Harrison, E. (2013) 'Bouncing back? Recession, resilience and everyday lives', *Critical Social Policy*, 33 (1): 97-103.

Holling, C.S. (1973) 'Resilience and stability of ecological systems', *Annual Review of Ecology and Systematics*, 4: 1-23.

Holling, C.S. (2001) 'Understanding the complexity of economic, ecological and social systems', *Ecosystems*, 4: 390-405.

Kamanu, G. and Morduch, J. (2002) *Measuring Vulnerability to Poverty*, WIDER Discussion Paper, No. 2002/58, Helsinki: The United Nations University World Institute for Development Economics Research (UNU-WIDER).

Keck, M. and Sakdapolrak, P. (2013) 'What is social resilience?', *Erdkunde*, 67 (1): 5-19.

Lang, T. (2010) 'Urban resilience and new institutional theory: A happy couple for urban and regional studies', in Müller, B. (ed) *German Annual of Spatial Research and Policy 2010*. Berlin: Springer, pp. 15–24.

Larner, W. (2011) 'C-change? Geographies of crisis', *Dialogues in Human Geography*, 1: 319-335.

Littig, B. and Griessler, E. (2005) 'Social sustainability: A catchword between political pragmatism and social theory', *International Journal of Sustainable Development*, 8 (1/2): 65-79.

Luthar, S. S., Cicchetti, D. and Becker, B. (2000) 'The construct of resilience: A critical evaluation and guidelines for future work', *Child Development* 71 (3): 543–562.

Mackinnon, D. and Derickson, K. D. (2013) 'From resilience to resourcefulness: A critique of resilience policy and activism', *Progress in Human Geography*, 37 (2): 253–270.

Matheny, K.B., Aycocock, D. A. Curlette, W. L. and Junker, G. N. (1993) 'The coping resources inventory for stress: A measure of perceived resourcefulness', *Journal of Clinical Psychology*, 49 (6): 816-830.

McKeown, A., Hai Bui, D. and Glenn, J. (2022) 'A social theory of resilience: The governance of vulnerability in crisis-era neoliberalism', *European Journal of Cultural and Political Sociology*, 9, 1: 112-132.



Michaelis, T.L., Scheaf, D. J., Carr, J. C. and Pollack, J.M. (2022) 'An agentic perspective of resourcefulness: Self-reliant and joint resourcefulness behaviors within the entrepreneurship process', *Journal of Business Venturing*, 37 (1): 106083.

Miller, F. et al (2010) 'Resilience and vulnerability: Complementary or conflicting concepts', *Ecology and Society*, 15, 3: 11.

Mohaupt, S. (2009) 'Review article: Resilience and social exclusion', *Social Policy & Society*, 8 (1): 63-71.

Mu, G.M. (2020) 'Sociologising resilience through Bourdieu's field analysis: Misconceptualisation, conceptualisation and reconceptualisation', *British Journal of Sociology of Education*, 42 (1): 15-31.

Olsson, L., Jerneck, A., Thoren, H., Persson, J. and O'Byrne, D. (2015) 'Why resilience is unappealing to social science: Theoretical and empirical investigations of the scientific use of resilience', *Science Advances*, 4 (1): 1-11.

Paloviita, A., Kortetmaki, T., Puupponen, A. and Silvasti, T. (2016) 'Vulnerability matrix of the food system: Operationalizing vulnerability and addressing food security', *Journal of Cleaner Production*, 135: 1242-1255.

Park, Y., Crath, R. and Jeffrey, D. (2020) 'Disciplining the risky subject: A discourse analysis of the concept of resilience in social work literature', *Journal of Social Work*, 20 (2): 231-265.

Rai, S. M., Hoskyns, C. and Thomas, D. (2014) 'Depletion', *International Feminist Journal of Politics*, 16 (1): 86-105.

Shaw, P., Scully, P. and Hart, T. (2014) 'The paradox of social resilience: How cognitive strategies and coping mechanisms attenuate and accentuate resilience', *Global Environmental Change*, 25: 194-203

Turner, B. L., Kasperson, R., Matson, P., McCarthy, J., Corell, R., Christensen, L., Eckley, N., Kasperson, J., Luers, A., Martello, M., Polsky, C., Pulsipher, A. and Schiller, A. (2003) 'A framework for vulnerability analysis in sustainability science', *Proceedings of the National Academy of Sciences of the United States of America*, 100 (14), 8.

Ungar, M. (2013) 'Resilience, trauma, context and culture', *Trauma, Violence and Abuse*, 14 (3): 255-266.

VanderPlaat, M. (2015) 'Activating the sociological imagination to explore the boundaries of resilience research and practice', *School Psychology International*, 37 (2): 189-203.



Vansteenkiste, M. and Ryan, R. M. (2013) 'On psychological growth and vulnerability: Basic psychological need satisfaction and need frustration as a unifying principle', *Journal of Psychotherapy Integration*, 23 (3): 263–280.

Walker, J. and Cooper, M. (2011) 'Genealogies of resilience: From systems ecology to the political economy of crisis adaptation', *Security Dialogue*, 42 (2): 143-160.

United Nations (1987) *World Commission on Environment and Development Our Common Future*, New York: United Nations.





rEUsilience

reusilience.eu



This project has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No Project 101060410 and Innovate UK, the UK's Innovation Agency.

Consortium members



Contact

Mary Daly, mary.daly@spi.ox.ac.uk,
University of Oxford, United Kingdom