Garcia, M., B. C. Glavovic, I. White, and C. M. Kenney. 2026. From social reproduction to resilience: a Bourdieusian framework to critically approach capital (re)-distribution and power inequity in community resilience processes. Ecology and Society 31(1):15.
https://doi.org/10.5751/ES-16937-310115

Synthesis

From social reproduction to resilience: a Bourdieusian framework to critically approach capital (re)-distribution and power inequity in community resilience processes

Martin Garcia[1], *Bruce C. Glavovic*[1], *Iain White*[2] and *Christine M. Kenney*[3]

ABSTRACT. Understanding how inequities in power and agency shape community resilience is key to advancing social-ecological systems scholarship. Some scholars have explored how the capitals metaphor can be leveraged for building resilience. However, few of those scholars have meaningfully engaged with critical social theory to realize the explanatory power of the capitals metaphor in addressing power and agency inequities, and the drivers and root causes that undermine resilience. Unless this gap is addressed, prevailing resilience frameworks and practices inadvertently perpetuate understandings that drive inequities and marginalization in social-ecological systems. In response, we critically review social-ecological resilience, community resilience, and capitals scholarship, and reveal that unreflexively expanding the scope of the capital metaphor to encompass diverse human and more-than-human domains has inadvertently reinforced the assumption that the purpose of capital is merely to maintain and reproduce capital, effectively placing all forms of life in service of capital production and reproduction. Our proposition to problematize and critically deepen the framing of capital in relation to resilience scholarship is twofold. First, we propose an alternative framing to the dominant conceptualization of "capital" so that the metaphor is mobilized in service of all forms of life. Second, we draw on the Bourdieusian theory of "social reproduction" of inequities and inequality to construct a novel community resilience framework to address the underlying social dynamics of community capital mobilization and its (re)-distributive processes for resilience building. This framework advances social-ecological systems scholarship with respect to the conceptualization and praxis of resilience.

Key Words: *Bourdieu; capitals; community resilience; inequity; power; social reproduction*

INTRODUCTION

Resilience is a key concept in diverse domains, from disaster research and practice to planning, international relations and social-ecological studies, with multiple and sometimes contested meanings (Walker and Cooper 2011, Alexander 2013, White and O'Hare 2014, Stevenson et al. 2015, Weichselgartner and Kelman 2015, Laskey et al. 2023). Community resilience and community capitals are constructs that have been used to varying degrees to frame the social dimension of resilience. Some authors draw on the capitals metaphor to a considerable extent (e.g., Stokols et al. 2013, Miles 2015, Quinn et al. 2022). Furthermore, Geoff Wilson explicitly incorporates a Bourdieusian perspective to define three core capitals, economic, social, and environmental, in his work (Wilson 2010, 2012a, b). Other scholars such as Susan Cutter either avoid the metaphor (Cutter et al. 2008), or cautiously engage with it using it as a broader framework for indicators, domains, and types of resilience, concluding that the use of the capitals metaphor as indicator composites might not be ideal to reflect the complexities of resilience dynamics (Cutter et al. 2014). Authors such as Berkes and Ross (2013) and Brown and Westway (2011) only mention the term capitals in passing, or in strict references to social capital, and appear to make a deliberate effort to move away from it choosing terms such as strengths, resources, and assets without providing a deeper rationale for avoiding the metaphor. The critical arguments proposed by authors such as MacKinnon and Derickson (2013) and McKeown et al. (2022), might shed some light on why some scholars might prefer to steer away from the capitals metaphor as its use could embed economic logics that reduce social complexity to measurable assets, obscuring issues of social inequity and power. However, the theoretical underpinnings of the capitals metaphor in resilience scholarship still remain largely unexplored and merit further critical problematization.

In addition, the predominant conceptual framing of resilience pays insufficient attention to power dynamics and the underlying social, economic, and political conditions that drive social inequity (Duit et al. 2010, Boonstra 2016, Fabinyi et al. 2014, Matin et al. 2018, Parthasarathy 2018, McKeown et al. 2022). Issues of power and inequity need to be further understood as they can help reveal systemic injustices that undermine the capacity of marginalized communities to adapt and thrive in the face of adversity (Evans and Reid 2014, Usamah et al. 2014, Parthasarathy 2018, Rumbach and Nemeth 2018, Thompson and Lopez Barrera 2023). Uncritical conceptualizations of resilience and capitals tend to inadvertently compound social fragmentation, marginalization, and inequality (Joseph 2013, Chandler 2014, Cretney and Bond 2014, Nelson 2014, Usamah et al. 2014, Brown 2016). This paper addresses these shortcomings by critically reflecting upon the conceptualization and integration of social-ecological resilience, community resilience, and the capitals metaphor. We leverage the critical Bourdieusian notion of social reproduction of inequities and inequalities to construct a community resilience framework that can overcome reductionist economic logics and reveal the underlying social dynamics of community capital mobilization and its (re)-distributive potential for resilience building (Bourdieu 1984, Bourdieu and Passeron 1990).

[1]School of People, Environment and Planning, Massey University, New Zealand, [2]School of Arts, University of Waikato, New Zealand, [3]School of Psychology, Massey University, New Zealand

Our research methodology is based on a critical narrative literature review to understand, first, the conceptualizations, nature, and roles of capital in building social-ecological and community resilience. Our focus on community resilience helped bound the scope of the review as the capitals metaphor is more prevalent in this scholarship. Second, we explore how the concept of capital and the multi-capitals metaphor have evolved over time and are used by community resilience scholars. This review focuses on publications identified through searches across electronic databases: Scopus, Web of Science, and Google Scholar, as well as manual searches at the Massey University Library. The search terms included "community resilience" and "community capitals,", "community resilience" and "capitals," "resilience" and "capitals" and "resilience" and "community capitals." Additional search terms were "assets," "resources," "multi-capitals," and "capitals." The time frame for the review extended from 1973, the date of Holling's seminal work titled "Resilience and stability of ecological systems," to 2023. Where necessary, earlier scholarship was drawn upon to frame the concept of capital and its evolution over time. Finally, insights by Pierre Bourdieu on capitals and social reproduction were foundational for our development of the proposed critical community resilience framework.

Social-ecological resilience, community resilience, and capitals

Resilience has become a buzzword in many domains of policy, science, and practice but its framing and operationalization remain tied to different, and at times contested conceptualizations. However, social-ecological resilience scholarship (Holling and Gunderson 2002, Holling et al. 2002, Berkes et al. 2003) has long highlighted the important roles of social learning (Kraker 2017), adaptive capacity (Berkes et al. 2003), connectivity, interdependence and feedback loops (Holling and Gunderson 2002), the effects of globalization on social-ecological systems (SES; Young et al. 2006), mental models and knowledge system integration (Folke 2006, Van Riper et al. 2018), and traditional ecological knowledge (Folke 2004). In addition, and despite concerns about limited engagement with pivotal social science concepts such as power, politics, and agency (Smit and Wandel 2006, Duit et al. 2010, Phillips and Fordham 2010, Fabinyi et al. 2014, Boonstra 2016, Thompson and Lopez-Barrera 2019), these precepts are increasingly being considered in social-ecological resilience literature (Robards et al. 2011, Moore and Tjornbo 2012, Berkes and Ross 2013, Brown 2014, Epstein et al. 2014, Fabinyi et al. 2014, Parthasarathy 2018, Folke et al. 2021, Pineda-Pinto et al. 2021, Norström et al. 2022). SES reviews (e.g., Cote and Nightingale 2012, Schlüter et al. 2021, Manyani et al. 2024) nonetheless continue to call for scholars to draw on critical social theory to embed the key concepts of power, politics, and agency in the framing and operationalization of resilience.

Communities might share some common traits, such as communitarian sharing of spatial boundaries, interests, norms, values, and cultural identities (Weber 1978, Tönnies 2001), differentially distributed power relations give rise to internal heterogeneity and can result in significant inequalities (Nisbet 1953, 1966, McMillan and Chavis 1986, Dalby and Mackenzie 1997, Agrawal and Gibson 2001, Pooley et al. 2006, Agyeman et al. 2016, Pelling and Garschagen 2019, Howard et al. 2020, Powell et al. 2021). Such inequalities, often reinforced by tradition and monopolization of power, can become rigid and very hard to dismantle. Uncritical conceptualizations of SES, and limited engagement with critical social theory, can therefore compound social fragmentation and inequality (Cote and Nightingale 2012, Joseph 2013, Brown 2014, Chandler 2014, Cretney and Bond 2014, Nelson 2014, Schlüter et al. 2021). The concepts of community resilience and community capitals need to be reconsidered in the light of these criticisms, and are explored next.

According to Berkes and Ross (2013), the concept of community resilience found productive ground in the convergence of two strands of literature, that of social-ecological resilience (Holling 1973, Gunderson and Holling 2002, Berkes et al. 2003), as described above, and a range of social constructs that explore individual and community mechanisms to navigate adversity, like community development (Zautra et al. 2008, Cavaye and Ross 2019, Cafer et al. 2022), and community self-organization (Norris et al. 2008). Community resilience can be defined as the ability of any given community to actively mobilize resources to change and adapt in the face of multi-scalar uncertainty and changing social and environmental conditions to reach sustained, higher levels of community well-being (Pooley et al. 2006, Kulig et al. 2008, Norris et al. 2008, Magis 2010, Berkes and Ross 2013). The notion of resources is important to this definition and requires further consideration.

Resources constitute a key element in many conceptualizations of community resilience (CCCR 2000, Magis 2010, Berkes and Ross 2013, Miles 2015). As an exemplar, community resilience is the "existence, development and engagement of community resources by community members to thrive in an environment characterized by change, uncertainty, unpredictability and surprise" (Magis 2010:402). Thus, community resilience encompasses the ability to take collective action and mobilize personal and collective capacities and resources in order to respond to change and achieve common goals (CCCR 2000, Brown and Westway 2011, Berkes and Ross 2013). This way of framing community resilience places special attention to the interplay between resources and agency as seen in the work of other scholars (e.g., Nelson et al. 2007, Magis 2010, Brown and Westaway 2011, Coulthard 2012, Kulig et al. 2013).

Following the early works of Brown and Kulig (1996, 1997), and drawing from community development literature, authors such as Matarrita-Cascante et al. (2017) and Pooley et al. (2006) refer to two distinct elements of community resilience that clearly relate to resources: community capacity and community competence. Community capacity refers to community members' capacities, skills, and assets or resources that can be used to solve problems (Brown and Kulig 1996/1997, Buckle 2006, Pooley et al. 2006, Magis 2010, Kulig et al. 2013). Kulig et al. (2013) refer to community competence by drawing on Norris et al. (2008) and linking it to resource mobilization and distribution, collective agency, decision making, and social capital. In this context of community capacity and competence, the capitals metaphor has been used in varied ways as a conceptual construct to examine the central role of resources in community resilience.

Although intended to mean different things, the terms "assets," "resources," and "capitals" are often conflated. According to the Oxford English Dictionary ([date unknown]), assets are defined as elements valued by people, communities, and organizations; resources are defined as assets in use; and capitals are resources

used for the specific purpose of generating other or more resources. Scholars such as Berkes and Ross (2013:15) only mention the term "capitals" once and in passing: "building a community involves building ecological as well as all other 'capitals,'" and also refer to "social capital" as a "community strength" necessary to build community resilience. Similarly, scholars such as Fazey et al. (2018) refer to multiple capitals early on, but predominantly choose to use the terms "resources" and "capacity" throughout their text, or the term "capitalisation" in other work (Fazey et al. 2021, Carmen et al. 2023). Other scholars focus only on a single capital, mainly social capital (Norris et al. 2008, Maclean et al. 2014, 2017, Carmen et al. 2022; Hall et al. 2023), while others draw on multiple capitals (Wilson 2010, 2012a, b, Stokols et al. 2013, Câmpeanu and Fazey 2014, Quinn et al. 2022). Furthermore, although it is common for authors using multiple capitals to draw on the seminal works of Jan and Cornelia Flora, Mary Emery, and Susan Fey from the community development field when referring to multiple capitals (e.g., Buikstra et al. 2010, Magis 2010, Miles 2015, Kais and Islam 2016), it is less common for authors to engage meaningfully with the historical and critical theoretical roots of the concept, exemplified in the works of Pierre Bourdieu. When scholars do draw on Bourdieu's work (e.g., Wilson 2010, 2012a, b, Norris et al. 2008, Stokols et al. 2013, Parthasarathy 2018, Carmen et al. 2022), they do so only in passing or to define capitals but without explaining the conceptual nuances and Bourdieusian implications for power inequity, marginalization, and capital mobilization. This gap in engaging meaningfully with the critical social theorization of the capital concept limits the explanatory power of capitals-focused community resilience frameworks and ultimately hinders equitable community resilience building.

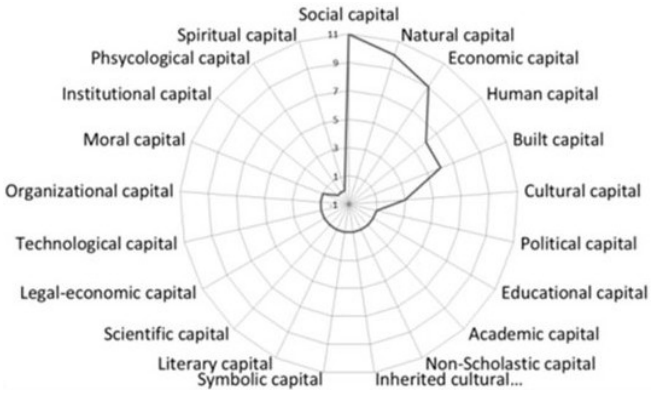
To address this gap, we provide an overview of the theoretical and empirical foundations of the capitals metaphor. This critical exploration reveals shortcomings in the predominant framings of this metaphor and its use in the community resilience literature and suggests ways to address these shortcomings by leveraging critical social theory, especially the foundational work by Pierre Bourdieu.

Theoretical and empirical foundations of the capitals metaphor

The concept of capital and more recent integrated multi-capital frameworks, such as the one presented by Flora and Flora (2013) and popularized in community resilience literature internationally (Norris et al. 2008, Stokols et al. 2013, Cutter et al. 2014, Miles 2015), can be traced back to the foundational economic conceptualizations of Adam Smith as stock of possessions accumulated beyond immediate consumption needs and used to procure a profit (1776). However, etymologically, the term can be traced even further to the classical roman period (Cannan 1921).

Integrated multi-capital frameworks proliferated in the early 1970s during a period marked by growing awareness of social and environmental crises (Meadows et al. 1972, Daly 1990, Ekins 1992, Carson 2000). In an attempt to understand and address these social and environmental challenges, many scholars (see Bourdieu 1984, 1986, Coleman 1988, Pearce 1988, Daly 1990, Becker 1993) extended and applied the concept of capital to other human and environmental dimensions. At least 21 different forms of capital have been developed with varying usage in multi-capital frameworks as depicted in Figure 1. The multiple axis in Figure 1 reflects each individual form of capital, and the length of the axis represents the total frequency with which each individual capital appears in the multi-capital literature over the reviewed time period (1973–2023).

Fig. 1. Distinctive capitals identified in multi-capital frameworks literature between 1973 and 2023.



The proliferation of capitals took place with the evolution of three distinct and parallel processes: (1) theoretical and empirical examination of individual capitals; (2) integrated multi-capital frameworks; and (3) the emergence of new forms of capital arising from debates about how to conceptualize capitals. These three conceptual developments are explored in the following paragraphs and build on the theoretical roots of the capitals concept to help reveal its potential and limitations in community resilience applications.

The earliest forms of capitals developed in literature are also the most frequently used in multi-capital frameworks, namely, economic, human, built, social, cultural, and natural capitals. A synthesis of commonly used definitions of each of these six core forms of capital is presented in Table 1.

Although these definitions are largely agreed upon, there are some deeper conceptual and political concerns about how natural and human capital are defined. For example, Becker (1993) drew on Adam Smith's concept of "fixed capital" (1776) to define human capital as the quantifiable assets that a person possesses, such as health, formal education, skills, and knowledge, that enable innovation and productivity. Defined in this way, human capital can be quantified and reduced to a formula that monetizes individual life (Becker 2007), which has been well received by some international organizations (e.g., Ramcharan 2004, World Bank 2014, World Economic Forum 2015). However, this framing has been criticized for reducing "human worth" to a financial metric (Porritt 2007). The notion of natural capital has also been critiqued. Natural capital can be understood as the stock of renewable and non-renewable natural resources, such as biodiversity, soils, water, forests, and different forms of minerals, which underpin ecosystem services, such as absorption, neutralization or recycling of waste, climate regulation, and others (Thampapillai and Uhlin 1997, Flora and Flora 2013, Wilson 2010, 2012a, b, Costanza et al. 2014). Natural capital is foundational for human well-being, health, livelihoods, and

Table 1. Synthesis of definitions of commonly used forms of capital.

Type of capital	Definition	Author/year
Economic capital	Highly liquid resources (cash or equivalent) that contribute to the circulation of all forms of capital through consumption and production processes that enable people's livelihood strategies.	DFID 1999, Porritt 2007, Samuelson and Nordhaus 2010, Wilson 2010, 2012a, b, Flora and Flora 2013
Built capital	Human constructed infrastructures (tools, machines, buildings, technologies, roads, bridges factories, etc.) that are used in production processes and to sustain human livelihoods.	DFID 1999, Porritt 2007, Ekins and Medhurst 2006, Flora and Flora 2013
Natural capital	The stock of renewable and non-renewable natural resources, such as biodiversity, soils, water, forests, and different forms of minerals.	Daly 1990, Ekins 1992, 2003, Costanza et al. 1997, 2014, Deutsch et al. 2003, Millenium Assessment 2005, Pelenc and Ballet 2015
Human capital	Assets that a person develops such as health, formal education, skills, and knowledge.	Becker 1993, Porritt 2007, Blair 2011, Flora and Flora 2013
Cultural capital	From a Bourdieusian perspective it can exist in three forms: (1) embodied states such as ideas, beliefs, traditions, values; (2) objectified states such as pictures, books, dictionaries, machines, sculptures, etc.; and (3) institutionalized state such as educational qualifications. Also used more broadly to refer to cosmology, environmental philosophy, different forms of knowledge, as well as values through which we judge and construct our worldview.	Bourdieu 1986, Berkes and Folke 1992, 1994, Throsby 1999, Flora and Flora 2013
Social capital	Trust, formal and informal institutions, norms and obligations, networks, and individual and collective actions. Two types of social capital are frequently referenced as well: bonding social capital (interactions within a group), and bridging social capital (interactions between groups).	Granovetter 1973, Coleman 1988, Gambetta 1988, Fukuyama 1995, 2000, Putnam 2000, Ostrom and Ahn 2003

survival and cannot be replaced if it is totally depleted (Daly 1990, Ekins 1992, 2003, Costanza et al. 1997, 2014, Deutsch et al. 2003, Millenium Assessment 2005, Pelenc and Ballet 2015). Critics, such as Gudynas (2000, 2011) and Naess (1989), argue that the commodification and pricing of nature deprives and disregards the inalienable right of nature to exist independent of any economic valuation or service that it may or may not provide to humans.

It is thus clear that some core capitals, such as natural and human capitals, are underpinned by deeper political and moral dimensions that elicit wider contestation around the use of the capitals metaphor. However, and despite the contested nature of capitals and their shortcomings, the metaphor was broadened and capitals were merged into integrated multi-capital frameworks (Table 2), gaining international traction through multi-lateral development organizations, such as the World Bank and several branches of the United Nations, as measurement tools for sustainable development goals (UNU-IHDP and UNEP 2012, Costanza et al. 2016).

One of the earliest and most widely cited social theorists to expound on capitals was Pierre Bourdieu who presented his initial integrated model of three capitals, namely economic, social, and cultural capitals (Bourdieu, 1984, 1986). Bourdieu's methodological approach was qualitative and heavily influenced by the fields of sociology and anthropology, and became one of the most developed forms of integrated capital analysis, laying an important foundation to address power and marginalization by exploring how metaphysical forms of capital (especially cultural and social capital) contribute to the perpetuation of social inequities and class divisions.

Later, in the face of growing recognition of the ecological crisis, and influenced by Bourdieu, Ekins (1992) presented a four-capital economic model rooted in economics. This approach critiqued the idea of unlimited growth and recognized limits to production by incorporating environmental variables into the integrated model proposed. Ekins's framework would later be used by Porritt (2007) who followed Ekins's critique of rational models of the economy (i.e., based on individualism, competition, and free markets) by recognizing that unfettered growth is limited by the laws of thermodynamics on a finite planet. Also, with reference to the environmental field, the first appearance of a multi-capital framework can be attributed to Berkes and Folke (1994) who proposed a three-capital framework to assess the sustainable use of natural capital. Scoones (1998) incorporated four capitals to advanced sustainable rural livelihoods approaches. In addition, influenced by Bourdieu, Putnam, and others, Flora and Flora developed a community capitals approach over subsequent editions of the book *Rural Communities: Legacy and Change*.

Business-centered multi-capital frameworks were developed around the same time, such as Elkington's (1999) triple bottom line, Hawken et al. (1999) and Gleeson-White's (2015) approach to multiple capitals, and McElroy's multi-capital scorecards (McElroy and Thomas 2015; Thomas and McElroy 2014, https://multicapitalscorecard.com/multicapitalism-a-new-economic-doctrine-for-sustainability-in-commerce/). However, this expansion was limited, as these frameworks maintained the simplistic multi-capital framing of business accounting with the "bottom line" expanded to five capitals (human, social and relationship, constructed, economic, and natural capitals).

Finally, in addition to the development of multi-capital frameworks such as the ones described above, a set of novel and less well-known forms of capitals emerged. Some of these emerging capitals were developed in the field of business management and have been used to assess organizational capabilities within companies and businesses (i.e., institutional capital, intellectual capital, organizational capital, and psychological capital). Spiritual capital is one of the least developed in literature. Liu (2015, http://www.researchmethods.org/MeasuringSpCapital.pdf) differentiated three main understandings of spiritual capital: as religious capital; as what makes life meaningful; and as attachment to a deity(s). Another set of less developed types of capital are related to Bourdieu's concept of cultural capital, including symbolic, legal-economic, scientific, academic, non-scholastic cultural, inherited, and literary capitals (Bourdieu 1984, 1987). The notion of political capital seems to

Table 2. The integrated multi-capital frameworks frequently mentioned in literature, including founding authors, initial year of publication, and types of capital.

Author	Year	Number of capitals	Type of capitals
Pierre Bourdieu	1986	3	Economic capital Social capital Cultural capital
Paul Ekins	1992	4	Environmental capital Human capital Physically produced capital Social/organizational capital
Fikret Berkes and Carl Folke	1994	3	Natural capital Cultural capital Social capital
Ian Scoones	1998	4	Natural capital Economic/financial capital Social capital Human capital
Department for International Development	1999	5	Natural capital Financial capital Social capital Human capital Physical capital
John Elkington	1999	3	Economic capital Natural capital Social capital
Jules Pretty and Hugh Ward	2001	3	Social capital Human capital Natural capital
Jonathon Porritt	2007	5	Natural capital Human capital Social capital Manufactured capital Financial capital
Geoff Wilson	2010	3	Economic capital Social capital Environmental capital
Cornelia B. Flora and Jan L. Flora	2013	7	Financial capital Political capital Social capital Human capital Cultural capital Natural capital Built capital
Daniel Stokols, Raul Perez Lejano, and John Hipp	2013	7	Economic/financial capital Natural capital Human made capital Technological capital Social capital Human capital Moral capital
Martin Thomas and Mark McElroy	2014	5	Human capital Social and relationship capital Constructed capital Internal and external economic capital Natural capital

have emerged as a complement to Putnam's framing of social capital to explain how civil society can influence government (Booth and Bayer-Richard 1998). And, finally, moral capital emerged much more recently and refers to norms, values, and ethics that guide individual behavior and sets the normative foundation on which communities are built. The concept of moral capital has been a key element in some social research such as rural studies (Jaye et al. 2022), human production systems (Wang 2015), sustainable development (Porritt 2007), political processes (Kane 2001), and human-environmental resilience (Stokols et al. 2013). Table 3 summarizes these emerging forms of capital.

In summary, there is an extensive literature on integrated multi-capital frameworks and individual capitals. Empirical evidence underscores the utility of applying these frameworks in many different fields. However, although the frameworks are evidently useful, most of them, as well as the individual capitals, are attached (to varying extents) to a model of society that limits their scope and application in a resilience context. This limitation is rooted in how capital is framed and its etymological history, and this limitation has neither been identified nor addressed in the general capitals literature, nor in the community resilience literature that draws on the capital metaphor. We argue, first, that this limitation needs to be addressed to avoid reinforcing the drivers and root causes of vulnerability and the hegemonies and inequities that hinder community resilience understanding and praxis. Second, we argue that critical social theory, especially Bourdieu's work given his social reproduction approach to capitals dynamics, can help to address these shortcomings and inform a more robust framing of the capitals concept to enable a more fulsome and critical conceptualization and use of the capitals metaphor in community resilience scholarship and practice.

Problematizing the concept of capital

For much of the last 300 years, the term capital has been tied to economic productivity: resources that are invested to generate more or different resources. This characterization lacks specificity as to the purpose of the reproduction of resources. The underlying framing of capital centers on growth, production, and consumption; and positions more recent types of capital (e.g., social, human, cultural, built, natural) in service of economic production (Mujica 2012). The uncritical reproduction of this conceptualization of capitals is deeply problematic, and hence our focus on critically approaching the concept of capital and multi-capital frameworks.

Our starting point is to consider the etymology of capital. According to Cannan (1921), the origin of the word capital can be traced to the classical Roman period when *capitalis* was a term associated with what we now understand as "head." Under this conception, scholars of that time used capital in relation to "crime" and "punishment" in the sense of "having to do with life," and also related the notion of what is "most important." The latter usage became very common in the French and English languages to refer to that which was "most important," such as a capital city, capital argument, and capital punishment, for example. However, in the 16th and 17th centuries, the term made its first appearances in documents used to teach accounting. These initial uses in the fields of economics and accounting were associated with debt, goods possessed, wealth, and holdings of a company (Cannan 1921). As the 18th century unfolded, physiocratic authors such as Anne Robert Jacques Turgot (1795), and classical economists such as Adam Smith (1776) and David Ricardo (1817) included capital as an integral part of their economic models. Evidently, as mercantilism grew and gave way to capitalism that which was considered most important was clearly established as the production system itself, placing productivity as the driver of capital.

Table 3. Synopsis of emerging forms of capital, including defining features and noteworthy citations.

Type of capital	Definition	Author/year
Institutional capital	Formal and informal institutional context surrounding economic resources that can increase productivity.	Oliver 1997, Bresser and Millonig 2003, Schneider 2010
Intellectual capital	Intangible assets of a company such as intellectual property, organizational capital, and the intangible side of human capital.	Edvinsson and Sullivan 1996, Petty and Guthrie 2000, Wiederhold 2013
Organizational capital	Company's embodied systems, procedures, structures, and interpersonal relations.	Tomer 1998, Brynjolfsson et al. 2002, Fu et al. 2016
Psychological capital	Positive traits of human resources such as self-efficacy, optimism, hope, and resilience.	Luthans et al. 2004, Avey et al. 2009
Spiritual capital	Religious beliefs Attachment to God What makes life meaningful	Rima 2020, Oommen and Muralivallabha 2025
Legal-economic capital Academic capital Non-scholastic cultural capital Inherited capital Literary capital Scientific capital	Set of less developed individual capitals that can be directly associated with Bourdieu's concept of cultural capital.	Bourdieu 1984, 1987
Symbolic capital	Symbolic capital is a credit; it is the power granted to those who have obtained sufficient recognition to be in a position to impose recognition. From that the various types of capital assume when they are perceived and recognized as legitimate.	Bourdieu 1989
Political capital	Citizen's behaviors, attitudes, organizations, connections, voices, and power that allow them to influence other social actors, and turn shared norms and values into institutionalized normative systems.	Booth and Bayer-Richard 1998, 2012, Sørensen and Torfing 2003, Flora and Flora 2013
Moral capital	Norms, values, and ethics that guide individual behavior and establishes the pillars on which communities are built.	Kane 2001, Porrit 2007, Stokols et al. 2013, Wang 2015

It is imperative to adjust the concept of capital in reference to that which is most important, namely life itself; not merely the capitalist production system. With this framing, the meaning of all forms of capital is reconfigured; all capitals are in service of life, not merely economic production. The historical framing of capital is thus retained but, we argue, with a subtle, yet important refocus: capital should be understood as all resources used to generate more or new resources for the purpose of sustaining all life forms on the planet.

This reframing of capital provides a point of departure for a more critical application of the concept in community resilience scholarship and practice. But as highlighted above, further theoretical development and empirical evidence are needed to do so reflectively (see also Pigg et al. 2013, Miles 2015), and from a relational and critical social sciences perspective. We have argued that Bourdieu's body of work provides the best starting point for this because his work is widely regarded to be the most comprehensively and critically developed approach to capitals in social sciences (Korom 2020, Teixeira da Silva 2021, Schirone 2023). In particular, Bourdieu's work focuses attention on some of the key social constructs and processes neglected in prevailing SES and community resilience literature, namely, the drivers and root causes of marginalization and inequities in power relations, agency, and politics.

Empirical research by Carmen et al. (2022), Phibbs et al. (2018), and Uekusa (2018), amongst others, have begun to apply Bourdieu's framing of capital to help to better understand power dynamics and marginalization in disaster resilience. Others, like Mu (2020) and Stahl and Mu (2024) have applied Bourdieu's "social reproduction" theory to approach psychological resilience in children and education. However, resilience scholarship to date has not explored how Bourdieu's social reproduction theory advances community resilience and SES scholarship more broadly.

We now take a closer look at Bourdieu's social reproduction theory and reveal the key contributions that his concepts of "capitals," "field," and "habitus" can make. Understanding these concepts and theory provide an important critical theory foundation for SES thinking and a conjoined real-world approach to community resilience and capitals.

The dynamics of capital mobilization: social reproduction

The Bourdieusian theory of social reproduction suggests that individual and collective privileges built on capital accumulation are transmitted and reproduced across generations through cultural and social practices perpetuating social hierarchies and power structures (Bourdieu 1986, Bourdieu and Passeron 1979). Key to the dynamics of this process are four capitals (economic, social, cultural, and symbolic capitals), habitus, and fields, all of which will be explained in the following paragraphs.

Bourdieu defines capital as different forms of "accumulated labor" that can be drawn upon by agents to harness social power and shape the societal rules that structure access to privilege (Bourdieu 1986). His conceptualization includes four core forms of capital: economic, social, cultural, and symbolic capitals. Bourdieu's definition of economic capital is assets that can be "immediately and directly convertible into money and may be institutionalized in the form of property rights" (Bourdieu 1986:243). Similarly, Bourdieu (1984, 1986, 1987) pioneered the conceptualization of social capital as relational networks, a concept that has been picked up by authors ever since (Coleman 1988, 1990, Putnam 1993, 2000, Narayan 1999, Ostrom and Ahn 2003). However, although his framing of social capital has been mainstreamed in literature, the cultural and symbolic forms of capital that underpin his

theorization of capitals are not well understood and are poorly integrated into the multi-capital frameworks literature (Uekusa 2018); yet they are vital to understanding capital accumulation and mobilization, community agency, and social inequity and marginalization.

Bourdieu observed that cultural capital can appear in three forms: (i) as embodied states or habitus, such as ideas, beliefs, traditions enacted through a person's behavior and bodily practices; (ii) in objectified states, such as pictures, books, dictionaries, machines, sculptures, etc.; and (iii) in its institutionalized state, such as educational qualifications. Habitus is a key concept to integrate into a critical community resilience capitals framework because it helps explain agency through the accrual, and more importantly the mobilization of cultural and other forms of capital. The embodiment (bodily-manifestation) of cultural capital as habitus refers to the expression of cultural dispositions and beliefs in human behavior and bodies such as mannerisms, speech, clothing, skills, that shape the way in which social agents perceive the world and act within it (Bourdieu 1986, 1990, 2012). Additionally, habitus is developed through human life experiences in relation to the social environment and is understood as constituting individual and/or collective social practices (Bourdieu 1986, 1990, 2012). Shared habitus is what enables social proximity, interaction, and cooperation amongst individuals; shaping social groups or class and thus, constituting an essential prerequisite for the creation of social capital (Bourdieu 1986, 2012). Shared habitus enables individuals to recognize symbolic claims of legitimacy regarding representativeness for example, and the power accrual by other members of the same group or class. Habitus may be understood as simultaneously structuring and being structured by experiences as well as reflecting the symbolic structures that shape power relations and individual and collective agency in the social world.

Symbolic capital exists only as long it is recognized by other actors, thus arguably, a form of capital that exists only if there is a claim of legitimacy of representativeness or discourse where others recognize and acknowledge that claim as legitimate (Bourdieu 1984, 1989). In this way, all forms of capital are in fact underpinned by symbolic capital in that every capital requires social recognition or legitimacy to hold any value (Bourdieu 1989). As an exemplar, a 50-dollar bill is materially only a piece of paper with drawings, letters, and numbers on it. The holder of such an item would be holding a useless piece of paper if it was not for the shared social recognition of its symbolic value. In arguing that positions in the field are determined by capital accumulation and mobilization, and that the multiple forms of capital are ultimately underpinned by symbolic capital, Bourdieu infers that (symbolic) power is always associated with symbolic capital and cannot be exercised "without the complicity of the whole group" (Bourdieu 2012:195). The notion of symbolic power is therefore associated with agency in that symbolic power drives social "world-making," that is, the power of changing "the vision of the world and the practical operations by which groups are produced and reproduced" (Bourdieu 1989:23).

Bourdieu's concept of fields helps to better understand how capitals are mobilized. Bourdieu describes fields as a series of relational, dynamic, competitive, hierarchical overlapping, and permeable social arenas (e.g., the economic field, the cultural field, or the educational field) in which actors seek to achieve their interests based on accrual of multiple forms of physical and metaphysical forms of capital (Bourdieu 1993). The structure and boundaries of fields are determined by the way in which individuals accrue and mobilize capitals seeking to occupy dominant positions in a field that can also be divided into autonomous sub-fields with porous boundaries. Additionally, fields can be structured hierarchically in relation to each other and provide a structure in which actors position themselves and or are positioned by other actors within the field. Central positions in the field are usually held by actors who have accrued significant capital and have the agency to mobilize it individually or collectively to realize interests in the field through establishing the rules and norms that regulate the field's dynamics and displacing others to more marginal positions in the field (Bourdieu 1993).

Bourdieu (1984, 1986) draws on his framing of fields and the three forms of cultural capital to construct his theory about social reproduction that posits that personal and community achievements are deeply influenced by "heavily disguised" and sometimes even "invisible" social conditions, such as social class, access to good food, housing, and "high-status" cultural activities and practices embodied as habitus. Bourdieu also posits that all three forms of capital are accumulated and can be transmitted through social relations (social capital), such as family structures and other socio-culturally homogeneous networks built on shared habitus, i.e., mental and bodily dispositions (Bourdieu 1984). This capital accumulation and transmission enables some individuals and groups to monopolize valuable economic, cultural, and symbolic resources systematically facilitating their access to central positions in the field of power while marginalizing others, thus monopolizing access to "world-making." Bourdieu applied his capitals-based social reproduction theory to explain class formation, social privilege, marginalization, inequities, power and politics, and agency, in areas such as education (Bourdieu and Passeron 1979, 1990), culture and aesthetics (Bourdieu 1984, 1993), and academia (Bourdieu 1988). In the same way, this framing of capital can be used to address issues of inequity and power relations in community resilience scholarship beyond the sole use of the capitals metaphor.

Bourdieu's perspective is very well articulated, but it has been subject to two key critiques. First, some scholars (e.g., Schuller et al. 2000, Lareau and Weininger 2003, Goldthorpe 2007, Tzanakis 2011) argue that although the interest in the concept of cultural capital has grown since its inception, there is little to no empirical evidence on the role that cultural capital plays in the social reproduction thesis. Bourdieu counters that his work is not merely theoretical, it is rooted in qualitative ethnographic research (e.g., Bourdieu 1984, 1993, 2012). Berger's (2000) review of the use of Bourdieu's social reproduction thesis in primary, secondary, and higher education in the United States documents an extensive body of empirical evidence about the relationship between the social reproduction thesis and social and cultural capitals. Bakker and Gill (2019) draw on empirical studies from multiple disciplines such as geography, migration studies, feminist studies, and political economy, to show that social reproduction is in fact a "variegated" social phenomena. Searching for quantifiable measures of qualitative characteristics might be counterproductive given that the situated nature of the social reproduction process and the distinctive ways in which economic, social, cultural, and symbolic forms of capital are framed, constituted, and reproduced. The second key critique is posed by Latour (2005) and others (e.g., Sewell 1992, Bohman 1997, Robb 2010) who argue that Bourdieu's

structuralism ignores the reflexivity and transformative agency of actors (Latour 2005). Bourdieu himself would rarely use the term "agency," however, he does refer to "agents" very frequently, and his constructivist structuralist position manifested in the concept of habitus delineates a fuzzy, relational, and dynamic boundary between agency and structure. In other words, Bourdieu and his adherents propose that individual agents' habitus can be structured by their social environment, but also acknowledge that agents' habitus simultaneously endows agents with the reflexive ability to transform themselves and social structures (Nash 1999, Bourdieu 2012, Stahl and Mu 2024).

In summary, we argue that Bourdieu's theory on social reproduction processes provides a constructive way to progress multi-capital-based conceptualization of resilience, especially from an SES perspective, by explicitly mobilizing key social science concepts such as power relations, politics, agency, and marginalization. In essence, Bourdieu's work sheds light on the dynamic and complex processes that underpin agency and capitals mobilization and distribution in communities, including processes driving power inequities, marginalization, and thus, hindering equitable community resilience building.

Toward a new community resilience capitals framework

Although SES resilience scholarship, and within it the capitals metaphor, have made progress in incorporating key social science concepts such as power, inequity, and marginalization, there is limited scholarship that deliberately engages with critical social theory and how this can inform resilience conceptualization and praxis. The application of a Bourdieusian perspective on the capitals metaphor to inform community resilience scholarship enables better integration of critical social theory into resilience scholarship and SES research more generally. Here, we draw on Bourdieu's social reproduction thesis to construct a Community Resilience Capitals Framework.

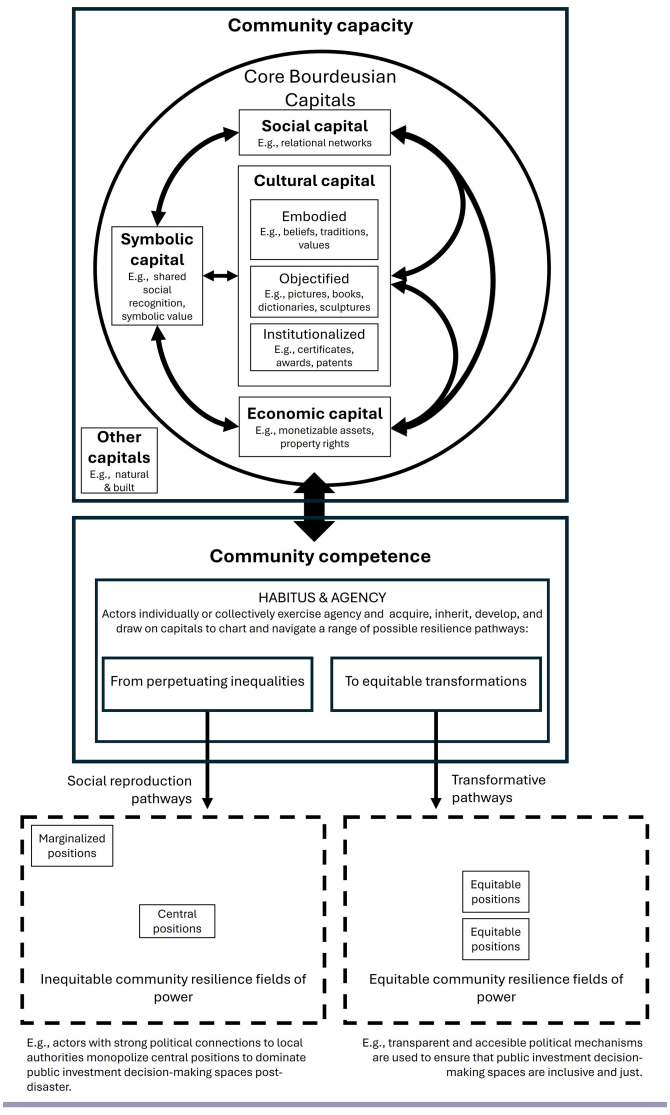
We start by drawing on key concepts for operationalizing community resilience, namely community capacity and community competence as these two concepts provide a useful basis to approach issues of agency, and resource access and distribution in community resilience processes (Pooley et al. 2006, Norris et al. 2008, Kulig et al. 2013, Matarrita-Cascante et al. 2017). We then propose complementing and expanding the explanatory potential of these concepts by drawing on key Bourdieusian social reproduction concepts such as capitals (economic, cultural, social, and symbolic capitals), habitus, and fields to explicitly engage with issues of power, inequity, and marginalization.

Community capacity (CCa) refers to the total amount of tangible and intangible forms of capital available in a community to draw on to chart resilience pathways. We focus on the four key capitals referred to by Bourdieu as central for social reproduction (economic, cultural, social, and symbolic capitals) but recognize that other capitals (such as natural capital) could be included in the framework, depending on their relevance to specific resilience building contexts within and across communities. The concepts of cultural and symbolic capitals in particular provide important conceptual tools to deepen understanding of key social issues such as symbolic power and collective world-making in community resilience processes.

Community competence (CCo) refers to the internal ability of a system (in this case a community) to access, distribute, and use different forms of capital (CCa) to adapt to changes. The Bourdieusian concept of habitus is key here as embodied values and representations of the world manifesting as bodily dispositions and decision making affect social groups and their agency to access, distribute, and use different forms of capital (CCa) across social fields. Framed in this way, CCo allows one to reveal and apply important social processes, such as social structures, collective agency, collective-decision making, and self-enablement, in SES thinking.

Finally the Bourdieusian concept of fields is used to refer to the social arenas in which actors draw on their competence (CCo) and resources (CCa) to position themselves and others while charting and navigating potential resilience pathways; from inequitable pathways that reproduce social inequities and marginalization, to social-redistribution pathways that foster enduring social-ecological justice and equity for people and the planet. As shown in Figure 2, these constructs are foundation stones for the Community Resilience Capitals Framework.

Fig. 2. Community Resilience Capitals Framework based on Bourdieu's theory of social reproduction.



The CRCF can be used to better understand and assess how power and marginalization influence resilience building, and thus enable more effective community-based resilience. The CRCF provides a conceptual framework to identify capitals accrued by different actors as CCa and describe how they are mobilized and drawn on (CCo) to secure community priorities. By identifying capitals and how actors draw on them, CRCF can also be used to identify hierarchical power relations between actors and sectors of the community in resilience building processes. The framework reveals the complex capital dynamics and power relations that underpin community agency and the processes of negotiating and enacting community priorities. It can also be used to reveal practical barriers that impede efforts to enable enduring community resilience. Complex and divergent worldviews and interests, and power dynamics and politics shape real-life community interactions and ultimately influence how community resilience discourses are translated into community-based resilience practice. The CRCF framework helps to better understand these interactions and provides a foundation for unlocking community resilience.

CONCLUSION

This review reveals that the adoption of the capitals metaphor in community resilience literature is limited by the narrow way in which authors engage with Bourdieu's critical scholarship, limiting their explanatory power and resilience building potential. Furthermore, the unreflective and inconsistent expansion of the capitals metaphor to cover multiple domains of human and more-than-human life in community resilience literature has inadvertently reinforced the assumption that the purpose of capital is merely to reproduce capital, thus placing all forms of life in service of capital production and reproduction.

Leveraging Bourdieu's framing of capital, his social reproduction thesis can be deployed to better understand resilience. Our framework proposes a categorical and critical re-definition of the purpose of capital that shifts thinking toward a more progressive and contemporary understanding of capital and its primary purpose: to sustain the well-being of all life forms on the planet. This re-framing of the term capital presents a new lens to analyze the purpose and effects of resilience building efforts. As a result, we propose a new Community Resilience Capitals Framework that draws on insights from Bourdieu's critical social exposition on social reproduction processes.

Bourdieu's works highlight the relationship between capitals, power, and marginalization in resilience building processes. We argue our framework holds potential for identifying how actors accrue and mobilize different forms of capital as they try to determine and secure community priorities. In addition, the framework holds analytical value to explore how capitals mobilization, distribution, and accrual counters social marginalization and exclusion from community agency and decision-making processes. This proposed framework advances the capital's metaphor in resilience scholarship beyond a "stock of assets" construct toward a more nuanced, reflexive, and critical approach to better understand how communities at various scales can understand and address equitable resilience building processes in the context of escalating social-ecological risks.

Data Availability:

This manuscript is a synthesis, and did not draw on any empirical data or coding thus, the data/code sharing is not applicable to this submission.

LITERATURE CITED

Agrawal, A., and C. C. Gibson. 2001. Communities and the environment. Ethnicity, gender, and the state in community-based conservation. Rutgers University Press, New Brunswick, New Jersey, USA.

Agyeman, J., D. Schlosberg, L. Craven, and C. Matthews. 2016. Trends and directions in environmental justice: from inequity to everyday life, community, and just sustainabilities. Annual Review of Environment and Resources 41(1):321-340. https://doi.org/10.1146/annurev-environ-110615-090052

Alexander, D. E. 2013. Resilience and disaster risk reduction: an etymological journey. Natural Hazards and Earth Systems Sciences 13:2707-2716. https://doi.org/10.5194/nhess-13-2707-2013

Avey, J. B., F. Luthans, and S. M. Jensen. 2009. Psychological capital: a positive resource for combating employee stress and turnover. Human Resource Management 48(5):677-693. https://doi.org/10.1002/hrm.20294

Bakker, I., and S. Gill. 2019. Rethinking power, production, and social reproduction: toward variegated social reproduction. Capital & Class 43(4):503-523. https://doi.org/10.1177/0309816819880783

Becker, G. S. 1993. Human capital. Third edition. University of Chicago Press, Chicago, Illinois, USA.

Becker, G. S. 2007. Health as human capital: synthesis and extensions. Oxford Economic Papers 59(3):379-410. https://doi.org/10.1093/oep/gpm020

Berger, J. B. 2000. Optimizing capital, social reproduction, and undergraduate persistence a sociological perspective. Pages 95-124 in J. M. Braxton, editor. Reworking the student departure puzzle. Vanderbilt University Press, Nashville, Tennessee, USA. https://doi.org/10.2307/j.ctv176kvf4.9

Berkes, F., J. Colding, and C. Folke. 2003. Navigating social-ecological systems: building resilience for complexity and change. Cambridge University Press, Cambridge, UK. https://doi.org/10.1017/CBO9780511541957

Berkes, F., and C. Folke. 1992. A systems perspective on the interrelations between natural, human-made and cultural capital. Ecological Economics 5(1):1-8. https://doi.org/10.1016/0921-8009(92)90017-M

Berkes, F., and C. Folke. 1994. Investing in cultural capital for sustainable use of natural capital. Pages 128-150 in A. M. Jansson, editor. Investing in natural capital: the ecological economics approach to sustainability. Island, Washington, D.C., USA.

Berkes, F., and H. Ross. 2013. Community resilience: toward an integrated approach. Society and Natural Resources 26(1):5-20. https://doi.org/10.1080/08941920.2012.736605

Blair, M. M. 2011. An economic perspective on the notion of "human capital." Pages 49-70 in A. Burton-Jones and J. C. Spencer, editors. The Oxford handbook of human capital. Oxford University Press, Oxford, UK. https://doi.org/10.1093/oxfordhb/9780199532162.003.0002

Bohman, J. 1997. Reflexivity, agency and constraint: the paradoxes of Bourdieu's sociology of knowledge. Social Epistemology 11(2):171-186. https://doi.org/10.1080/02691729708578841

Boonstra, W. J. 2016. Conceptualizing power to study social-ecological interactions. Ecology and Society 21(1):21. https://doi.org/10.5751/ES-07966-210121

Booth, J. A., and P. Bayer-Richard. 1998. Civil society, political capital, and democratization in Central America. Journal of Politics 60(3):780-800. https://doi.org/10.2307/2647648

Booth, J. A., and P. Bayer-Richard. 2012. Untangling social and political capital in Latin American democracies. Latin American Politics and Society 54(3):33-64. https://doi.org/10.1111/j.1548-2456.2012.00164.x

Bourdieu, P. 1984. Distinction: a social critique of the judgment of taste. Harvard University Press, Boston, Massachusetts, USA. https://doi.org/10.4324/9781315680347-10

Bourdieu, P. 1986. The forms of capital. Pages 241-258 in J. G. Richardson, editor. Handbook of theory and research for the sociology of education. Greenwood, New York, New York, USA.

Bourdieu, P. 1987. What makes a social class? On the theoretical and practical existence of groups. Berkeley Journal of Sociology 32:1-17.

Bourdieu, P. 1988. Homo Academicus. Stanford University Press, Redwood City, California, USA.

Bourdieu, P. 1989. Social space and symbolic power. Sociological Theory 7(1):14-25. https://doi.org/10.2307/202060

Bourdieu, P. 1990. The logic of practice. Polity, Cambridge, UK. https://doi.org/10.1515/9781503621749

Bourdieu, P. 1993. The field of cultural production: essays on art and literature. Polity, Cambridge, UK.

Bourdieu, P. 2012. Outline of a theory of practice (27th Printing). Cambridge University Press, Cambridge, UK.

Bourdieu, P., and J. C. Passeron. 1979. The inheritors: French students and their relation to culture. University of Chicago Press, Chicago, Illinois, USA.

Bourdieu, P., and J. C. Passeron. 1990. Reproduction in education, society and culture. Vol. 4. Sage, London, UK.

Bresser, R. K. F., and K. Millonig. 2003. Institutional capital: competitive advantage in light of the new institutionalism in organization theory. Schmalenbach Business Review 55 (3):220-241. https://doi.org/10.1007/BF03396675

Brown, D., and J. Kulig. 1996/1997. The concept of resiliency: theoretical lessons from community research. Health and Canadian Society 4(1):29-52.

Brown, K. 2014. Global environmental change I: a social turn for resilience? Progress in Human Geography 38(1):107-117. https://doi.org/10.1177/0309132513498837

Brown, K. 2016. Resilience, development and global change. Routledge, London, UK. https://doi.org/10.4324/9780203498095

Brown, K., and E. Westaway. 2011. Agency, capacity, and resilience to environmental change: lessons from human development, well-being, and disasters. Annual Review of Environment and Resources 36(1):321-342. https://doi.org/10.1146/annurev-environ-052610-092905

Brynjolfsson, E., L. M. Hitt, and S. Yang. 2002. Intangible assets: computers and organizational capital. Brookings Papers on Economic Activity 2002(1):137-198. https://doi.org/10.1353/eca.2002.0003

Buckle, P. 2006. Assessing social resilience. Pages 88-104 in D. Paton and D. Johnston, editors. Disaster resilience: an integrated approach. Charles C. Thomas Publisher Ltd., Springfield, Illinois, USA.

Buikstra, E., H. Ross, C. A. King, P. G. Baker, D. Hegney, K. McLachlan, and C. Rogers-Clark. 2010. The components of resilience—perceptions of an Australian rural community. Journal of Community Psychology 38(8):975-991. https://doi.org/10.1002/jcop.20409

Cafer, A., J. Green, and G. Goreham. 2022. A community resilience framework for community development practitioners building equity and adaptive capacity. Pages 56-74 in M. A. Brennan, R. Phillips, N. Walzer, and B. D. Hales, editors. Community development for times of crisis. Routledge, London, UK. https://doi.org/10.4324/9781003212652-5

Câmpeanu, C. N., and I. Fazey. 2014. Adaptation and pathways of change and response: a case study from Eastern Europe. Global Environmental Change 28:351-367. https://doi.org/10.1016/j.gloenvcha.2014.04.010

Cannan, E. 1921. Early history of the term capital. Quarterly Journal of Economics 35(3):469-481. https://doi.org/10.2307/1884097

Carmen, E., I. Fazey, A. M. Bergseng, and E. S. Om. 2023. Building policy synergies: a case of community resilience, climate change and community empowerment policies in Scotland. Environmental Science & Policy 150:103579. https://doi.org/10.1016/j.envsci.2023.103579

Carmen, E., I. Fazey, H. Ross, M. Bedinger, F. M. Smith, K. Prager, K. McClymont, and D. Morrison. 2022. Building community resilience in a context of climate change: the role of social capital. Ambio 51(6):1371-1387. https://doi.org/10.1007/s13280-021-01678-9

Canadian Centre for Community Renewal (CCCR). 2000. The community resilience manual: a resource for rural recovery and renewal. CCCR, Canada.

Carson, R. 2000 (1962). Silent spring. Penguin, London, UK.

Cavaye, J., and H. Ross. 2019. Community resilience and community development: what mutual opportunities arise from interactions between the two concepts? Community Development 50(2):181-200. https://doi.org/10.1080/15575330.2019.1572634

Chandler, D. 2014. Beyond neoliberalism: resilience, the new art of governing complexity. Resilience 2(1):47-63. https://doi.org/10.1080/21693293.2013.878544

Coleman, J. S. 1988. Social capital in the creation of human capital. American Journal of Sociology 94(1988):S95-S120. https://doi.org/10.1086/228943

Coleman, J. S. 1990. Foundations of social theory. Belknap Press of Harvard University Press, Cambridge, Massachusetts, USA.

Costanza, R., L. Daly, L. Fioramonti, E. Giovannini, I. Kubiszewski, L. Fogh Mortensen, K. E. Pickett, K. Vala Ragnarsdottir, R. De Vogli, and R. Wilkinson. 2016. Modelling and measuring sustainable wellbeing in connection with the UN Sustainable Development Goals. Ecological Economics 130:350-355. https://doi.org/10.1016/j.ecolecon.2016.07.009

Costanza, R., R. D'Arge, R. Groot, S. Farber, M. Grasso, B. Hannon, K. Limburg, S. Naeem, R. V. O'Neill, J. Paruelo, et al. 1997. The value of the world's ecosystem services and natural capital. Nature 387(6630):253-260. https://doi.org/10.1038/387253a0

Costanza, R., R. Groot, P. Sutton, S. van der Ploeg, S. J. Anderson, I. Kubiszewski, S. Farber, and R. K. Turner. 2014. Changes in the global value of ecosystem services. Global Environmental Change 26:152-158. https://doi.org/10.1016/j.gloenvcha.2014.04.002

Cote, M., and A. J. Nightingale. 2012. Resilience thinking meets social theory: situating social change in socio-ecological systems (SES) research. Progress in Human Geography 36(4):475-489. https://doi.org/10.1177/0309132511425708

Coulthard, S. 2012. Can we be both resilient and well, and what choices do people have? Incorporating agency into the resilience debate from a fisheries perspective. Ecology and Society 17(1):4. https://doi.org/10.5751/ES-04483-170104

Cretney, R., and S. Bond. 2014. 'Bouncing back' to capitalism? Grassroots autonomous activism in shaping discourses of resilience and transformation following disaster. Resilience 2 (1):18-31. https://doi.org/10.1080/21693293.2013.872449

Cutter, S. L., K. D. Ash, and C. T. Emrich. 2014. The geographies of community disaster resilience. Global Environmental Change 29(6):65-77. https://doi.org/10.1016/j.gloenvcha.2014.08.005

Cutter, S. L., L. Barnes, M. Berry, C. Burton, E. Evans, E. Tate, and J. Webb. 2008. A place-based model for understanding community resilience to natural disasters. Global Environmental Change 18(4):598-606. https://doi.org/10.1016/j.gloenvcha.2008.07.013

Dalby, S., and F. Mackenzie. 1997. Reconceptualising local community: environment, identity and threat. Royal Geographical Society 29(2):99-108. https://doi.org/10.1111/j.1475-4762.1997.tb00012.x

Daly, H. E. 1990. Toward some operational principles of sustainable development. Ecological Economics 2:1-6. https://doi.org/10.1016/0921-8009(90)90010-R

Department for International Development (DFID). 1999. Sustainable livelihood guidance sheets. DFID, London, UK. https://www.livelihoodscentre.org/documents/114097690/114438878/Sustainable+livelihoods+guidance+sheets.pdf

Deutsch, L. M., C. Folke, and K. Skånberg. 2003. The critical natural capital of ecosystem performance as insurance for human well-being. Ecological Economics 44(2-3):205-217. https://doi.org/10.1016/S0921-8009(02)00274-4

Duit, A., V. Galaz, K. Eckerberg, and J. Ebbesson. 2010. Governance, complexity, and resilience. Global Environmental Change 20(3):363-368. https://doi.org/10.1016/j.gloenvcha.2010.04.006

Edvinsson, L., and P. Sullivan. 1996. Developing a model for managing intellectual capital. European Management Journal 14 (4):356-364. https://doi.org/10.1016/0263-2373(96)00022-9

Ekins, P. 1992. A four-capital model of wealth creation. Pages 147-155 in P. Ekins and M. Max-Neef, editors. Real-life economics: understanding wealth creation. Routledge, London, UK.

Ekins, P. 2003. Identifying critical natural capital: conclusions about critical natural capital. Ecological Economics 44 (2-3):277-292. https://doi.org/10.1016/S0921-8009(02)00278-1

Ekins, P., and J. Medhurst. 2006. The European structural funds and sustainable development: a methodology and indicator framework for evaluation. Evaluation 12(4):474-494. https://doi.org/10.1177/1356389006071294

Elkington, J. 1999. The triple bottom line: sustainability's accountant. Pages 69-96 in J. Elkington, editor. Cannibals with forks: the triple bottom line of the 21st century business. Capstone, Oxford, UK.

Epstein, G., A. Bennett, R. Gruby, L. Acton, and M. Nenadovic. 2014. Studying power with the social-ecological system framework. Pages 111-135 in M. J. Manfredo, J. J. Vaske, A. Rechkemmer, and E. A. Duke, editors. Understanding society and natural resources: forging new strands of integration across the social sciences. Springer Nature, New York, New York, USA. https://doi.org/10.1007/978-94-017-8959-2_6

Evans, B., and J. Reid. 2014. Resilient life: the art of living dangerously. Polity, Cambridge, UK.

Fabinyi, M., L. Evans, and S. J. Foale. 2014. Social-ecological systems, social diversity, and power: insights from anthropology and political ecology. Ecology and Society 19(4):28. https://doi.org/10.5751/ES-07029-190428

Fazey, I., E. Carmen, F. S. Chapin III, H. Ross, J. Rao-Williams, C. Lyon, I. L. C. Connon, B. A. Searle, and K. Knox. 2018. Community resilience for a 1.5 °C world. Current Opinion in Environmental Sustainability 31:30-40. https://doi.org/10.1016/j.cosust.2017.12.006

Fazey, I., E. Carmen, H. Ross, J. Rao-Williams, A. Hodgson, B. A. Searle, H. AlWaer, J. O. Kenter, K. Knox, J. R. A. Butler, et

al. 2021. Social dynamics of community resilience building in the face of climate change: the case of three Scottish communities. Sustainability Science 16:1731-1747. https://doi.org/10.1007/s11625-021-00950-x

Flora, C. B., and J. L. Flora. 2013. Rural communities: legacy + change. Fourth edition. Westview, Boulder, Colorado, USA.

Folke, C. 2004. Traditional knowledge in social-ecological systems. Ecology and Society 9(3):7. https://doi.org/10.5751/ES-01237-090307

Folke, C. 2006. Resilience: the emergence of a perspective for social-ecological systems analyses. Global Environmental Change 16(3):253-267. https://doi.org/10.1016/j.gloenvcha.2006.04.002

Folke, C., S. Polasky, J. Rockström, V. Galaz, F. Westley, M. Lamont, M. Scheffer, H. Österblom, S. R. Carpenter, F. S. Chapin III, et al. 2021. Our future in the Anthropocene biosphere. Ambio 50:834-869. https://doi.org/10.1007/s13280-021-01544-8

Fu, N., P. C. Flood, and T. Morris. 2016. Organizational ambidexterity and professional firm performance: the moderating role of organizational capital. Journal of Professions and Organizations 3(1):1-16. https://doi.org/10.1093/jpo/jov010

Fukuyama, F. 1995. Trust: the social virtue and the creation of prosperity. The Free Press, New York, New York, USA.

Fukuyama, F. 2000. Social capital and civil society. IMF Working Paper. International Monetary Fund, Washington, D.C., USA https://doi.org/10.5089/9781451849585.001

Gambetta, D. 1988. Trust: making and breaking cooperative relations. Basil Blackwell Ltd., New York, New York, USA.

Gleeson-White, J. 2015. Six capitals: or, can accountants save the planet? Rethinking capitalism for the twenty-first century. Norton & Company, New York, New York, USA.

Goldthorpe, J. H. 2007. "Cultural capital": some critical observations. Sociologica 1(2):1-23.

Granovetter, M. S. 1973. The strength of weak ties. American Journal of Sociology 78(6):1360-1380. https://doi.org/10.1086/225469

Gudynas, E. 2000. Los límites de la sustentabilidad débil, y el tránsito desde el capital natural al patrimonio natural. Educación, Participación y Ambiente, MARN, Caracas 4(11):7-11.

Gudynas, E. 2011. Buen vivir: today's tomorrow. Development 54(4):441-447. https://doi.org/10.1057/dev.2011.86

Gunderson. L. H., and C. S. Holling. 2002. Panarchy: understanding transformations in human and natural systems. Island, Washington, D.C., USA.

Hall, C. E., H. Wehling, J. Stansfield, J. South, S. K. Brooks, N. Greenberg, R. Amlôt, and D. Weston. 2023. Examining the role of community resilience and social capital on mental health in public health emergency and disaster response: a scoping review. BMC Public Health 23(1):2482. https://doi.org/10.1186/s12889-023-17242-x

Hawken, P., A. B. Lovins, and H. Lovins. 1999. Natural capitalism: creating the next industrial revolution. Little, Brown and Co, Boston, Massachusetts, USA.

Holling, C. S. 1973. Resilience and stability of ecological systems. Annual Review of Ecology and Systematics 4:1-23. https://doi.org/10.1146/annurev.es.04.110173.000245

Holling, C. S., and H. L. Gunderson. 2002. Resilience and adaptive cycles. Pages 25-62 in L. H. Gunderson and C. S. Holling, editors. Panarchy: understanding transformations in human and natural systems. Island, Washington, D.C., USA.

Holling, C. S., H. L. Gunderson, and G. D. Peterson. 2002. Sustainability and panarchies. Pages 63-102 in L. H. Gunderson and C. S. Holling, editors. Panarchy: understanding transformations in human and natural systems. Island, Washington, D.C., USA.

Howard, J., E. López Franco, and J. Shaw. 2020. Intersecting inequalities and prospects for community development. Community Development Journal 55(1):1-6. https://doi.org/10.1093/cdj/bsz035

Jaye, C., G. Noller, M. Bryan, and F. Doolan-Noble. 2022. 'The day I killed my cows was the day I walked away': *Mycoplasma bovis*, moral economy and moral capital. Journal of Rural Studies 95:86-94. https://doi.org/10.1016/j.jrurstud.2022.08.001

Joseph, J. 2013. Resilience as embedded neoliberalism: a governmentality approach. Resilience 1(1):38-52. https://doi.org/10.1080/21693293.2013.765741

Kane, J. 2001. The politics of moral capital. Cambridge University Press, Cambridge, UK. https://doi.org/10.1017/CBO9780511490279

Kais, S. M., and M. S. Islam. 2016. Community capitals as community resilience to climate change: conceptual connections. International Journal of Environmental Research and Public Health 13(12):1211. https://doi.org/10.3390/ijerph13121211

Korom, P. 2020. The prestige elite in sociology: toward a collective biography of the most cited scholars (1970-2010). Sociological Quarterly 61(1):128-163. https://doi.org/10.1080/00380253.2019.1581037

Kraker, J. 2017. Social learning for resilience in social-ecological systems. Current Opinion in Environmental Sustainability 28:100-107. https://doi.org/10.1016/j.cosust.2017.09.002

Kulig, J. C., D. S. Edge, and B. Joyce. 2008. Understanding community resilience in rural communities through multimethod research. Journal of Rural Community Development 3(3):77-94.

Kulig, J. C., D. S. Edge, I. Townshend, N. Lightfoot, and W. Reimer. 2013. Community resiliency: emerging theoretical insights. Journal of Community Psychology 41(6):758-775. https://doi.org/10.1002/jcop.21569

Lareau, A., and E. B. Weininger. 2003. Cultural capital in educational research: a critical assessment. Theory and Society 32:567-606. https://doi.org/10.1023/B:RYSO.0000004951.04408.b0

Laskey, A. B., E. Stanley, K. Islam, S. Schwetschenau, J. Sobeck, R. J. Smith, S. P. McElmurry, M. ASCE, P. Kilgore, K. Taylor, and M. W. Seeger. 2023. Perspectives and propositions on resilience as interdisciplinary, multilevel, and interdependent. Natural Hazards Review 24(3):03123004. https://doi.org/10.1061/NHREFO.NHENG-1471

Latour, B. 2005. Reassembling the social: an introduction to actor-network-theory. Oxford University Press, Oxford, UK. https://doi.org/10.1093/oso/9780199256044.001.0001

Luthans, F., K. W. Luthans, and B. C. Luthans. 2004. Positive psychological capital: beyond human and social capital. Business Horizons 47(1):45-50. https://doi.org/10.1016/j.bushor.2003.11.007

MacKinnon, D., and K. D. Derickson. 2013. From resilience to resourcefulness: a critique of resilience policy and activism. Progress in Human Geography 37(2):253-270. https://doi.org/10.1177/0309132512454775

Maclean, K., M. Cuthill, and H. Ross. 2014. Six attributes of social resilience. Journal of Environmental Planning and Management 57(1):144-156. https://doi.org/10.1080/09640568.2013.763774

Maclean, K., H. Ross, M. Cuthill, and B. Witt. 2017. Converging disciplinary understandings of social aspects of resilience. Journal of Environmental Planning and Management 60 (3):519-537. https://doi.org/10.1080/09640568.2016.1162706

Magis, K. 2010. Community resilience: an indicator of social sustainability. Society & Natural Resources 23(5):401-416. https://doi.org/10.1080/08941920903305674

Manyani, A., R. Biggs, L. Hill, and R. Preiser. 2024. The evolution of social-ecological systems (SES) research: a co-authorship and co-citation network analysis. Ecology and Society 29(1):33. https://doi.org/10.5751/ES-14694-290133

Matarrita-Cascante, D., B. Trejos, H. Qin, D. Joo, and S. Debner. 2017. Conceptualizing community resilience: revisiting conceptual distinctions. Community Development 48(1):105-123. https://doi.org/10.1080/15575330.2016.1248458

Matin, N., J. Forrester, and J. Ensor. 2018. What is equitable resilience? World Development 109:197-205. https://doi.org/10.1016/j.worlddev.2018.04.020

McElroy, M. W., and M. P. Thomas. 2015. The multi-capital scorecard. Sustainability Accounting, Management and Policy Journal 6(3):425-438. https://doi.org/10.1108/SAMPJ-04-2015-0025

McKeown, A., D. Hai Bui, and J. Glenn. 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. https://doi.org/10.1080/23254823.2021.1997616

McMillan, D. W., and D. M. Chavis. 1986. Sense of community: a definition and theory. Journal of Community Psychology 14 (1):6-23. https://doi.org/10.1002/1520-6629(198601)14:1%3C6::AID-JCOP2290140103%3E3.0.CO;2-I

Meadows, D. H., D. L. Meadows, J. Randers, and W. Behrens III. 1972. The limits to growth; a report for the Club of Rome's project on the predicament of mankind. Universe Books, New York, New York, USA. https://doi.org/10.1349/ddlp.1

Miles, S. 2015. Foundations of community disaster resilience: well-being, identity, services, and capitals. Environmental Hazards 14(2):103-121. https://doi.org/10.1080/17477891.2014.999018

Millenium Ecosystem Assessment. 2005. Ecosystems and the human well-being: synthesis. Island, Washington, D.C., USA.

Moore, M. L., and O. Tjornbo. 2012. From coastal timber supply area to Great Bear Rainforest: exploring power in a social-ecological governance innovation. Ecology and Society 17(4):26. https://doi.org/10.5751/ES-05194-170426

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. https://doi.org/10.1080/01425692.2020.1847634

Mujica, J. 2012. Intervención Presidente Mujica en Río+20 - President Mujica's speech in Río+20. [Video file]. https://www.youtube.com/watch?v=3cQgONgTupo

Naess, A. 1989. Ecology, community, and lifestyle: outline of an ecosophy. Cambridge University Press, Cambridge, UK. https://doi.org/10.1017/CBO9780511525599

Narayan, D. 1999. Bonds and bridges: social capital and poverty. Poverty group (PREM), World Bank, Washington, D.C., USA.

Nash, R. 1999. Bourdieu, 'habitus', and educational research: Is it all worth the candle? British Journal of Sociology of Education 20(2):175-187. https://doi.org/10.1080/01425699995399

Nelson, D. R., W. N. Adger, and K. Brown. 2007. Adaptation to environmental change: contributions of a resilience framework. Annual Review of Environment and Resources 32(1):395-419. https://doi.org/10.1146/annurev.energy.32.051807.090348

Nelson, S. H. 2014. Resilience and the neoliberal counterrevolution: from ecologies of control to production of the common. Resilience 2(1):1-17. https://doi.org/10.1080/21693293-.2014.872456

Nisbet, R. 1953. The quest for community. Oxford University Press, New York, New York, USA.

Nisbet, R. 1966. The sociological tradition. Basic Books, New York, New York, USA.

Norris, F. H., S. P. Stevens, B. Pfefferbaum, K. F. Wyche, and R. L. Pfefferbaum. 2008. Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. American Journal of Community Psychology 41(1-2):127-150. https://doi.org/10.1007/s10464-007-9156-6

Norström, A. V., B. Agarwal, P. Balvanera, B. Baptiste, E. M. Bennett, E. Brondízio, R. Biggs, B. Campbell, S. R. Carpenter, J. C. Castilla, et al. 2022. The programme on ecosystem change and society (PECS)—a decade of deepening social-ecological research through a place-based focus. Ecosystems and People 18 (1):598-608. https://doi.org/10.1080/26395916.2022.2133173

Oliver, C. 1997. Sustainable competitive advantage: combining institutional and resource based views. Strategic Management Journal 18(9):697-713.

Oommen, S., and T. V. Muralivallabhan. 2025. Placing spiritual capital in sustainable development frameworks. Frontiers in Political Science 7:1540462. http://doi.org/10.3389/fpos.2025.1540462

Ostrom, E., and T. K. Ahn. 2003. Foundations of social capital. Edward Elgar, Cheltenham, UK.

Oxford English Dictionary. [date unknown]. Oxford University Press, Oxford, UK.

Parthasarathy, D. 2018. Inequality, uncertainty, and vulnerability: rethinking governance from a disaster justice perspective. Environment and Planning E: Nature and Space 1(3):422-442. https://doi.org/10.1177/2514848618802554

Pearce, D. W. 1988. Economics, equity and sustainable development. Futures 20(6):598-605. https://doi.org/10.1016/0016-3287(88)90002-X

Pelenc, J., and J. Ballet. 2015. Strong sustainability, critical natural capital and the capability approach. Ecological Economics 112:36-44. https://doi.org/10.1016/j.ecolecon.2015.02.006

Pelling, M., and M. Garschagen. 2019. Put equity first in climate adaptation. Nature 569(7756):327-329. https://doi.org/10.1038/d41586-019-01497-9

Petty, R., and J. Guthrie. 2000. Intellectual capital literature review: measurement, reporting and management. Journal of Intellectual Capital 1(2):155-176. https://doi.org/10.1108/14691930010348731

Phibbs, S., C. Kenney, G. Rivera-Munoz, T. Huggins, C. Severinsen, and B. Curtis. 2018. The inverse response law: theory and relevance to the aftermath of disasters. International Journal of Environmental Research and Public Health 15(5):916. https://doi.org/10.3390/ijerph15050916

Phillips, B. D., and M. Fordham. 2010. Introduction. Pages 1-26 in B. D. Phillips, D. S. K. Thomas, A. Fothergill, L. Blinn-Pike, editors. Social vulnerability to disasters. CRC, Boca Raton, Florida, USA. https://doi.org/10.1037/e596802011-001

Pigg, K., S. P. Gasteyer, K. E. Martin, K. Keating, and G. P. Apaliyah. 2013. The community capitals framework: an empirical examination of internal relationships. Community Development 44(4):492-502. https://doi.org/10.1080/15575330.2013.814698

Pineda-Pinto, M., C. A. Nygaard, M. Chandrabose, and N. Frantzeskaki. 2021. Mapping social-ecological injustice in Melbourne, Australia: an innovative systematic methodology for planning just cities. Land Use Policy 104:105361. https://doi.org/10.1016/j.landusepol.2021.105361

Pooley, J. A., L. Cohen, and M. O'Connor. 2006. Links between community and individual resilience: evidence from cyclone affected communities in north west Australia. Pages 161-173 in D. Paton and D. Johnston, editors. Disaster resilience: an Integrated approach. Charles C. Thomas, Springfield, Illinois, USA.

Porritt, J. 2007. The five capitals framework. Pages 137-147 in Capitalism as if the world matters. Earthscan, London, UK.

Powell, K., A. Barnes, R. Anderson de Cuevas, C. Bambra, E. Halliday, S. Lewis, R. McGill, L. Orton, R. Ponsford, S. Salaway, et al. 2021. Power, control, communities and health inequalities III: participatory spaces—an English case. Health Promotion International 36(5):1264-1274. https://doi.org/10.1093/heapro/daaa059

Pretty, J., and H. Ward. 2001. Social capital and the environment. World Development 29(2):209-227. https://doi.org/10.1016/S0305-750X(00)00098-X

Putnam, R. D. 1993. Making democracy work: civic tradition in modern Italy. Princeton University Press, Princeton, New Jersey. USA.

Putnam, R. D. 2000. Bowling alone: the collapse and revival of American community. Simon & Schuster, New York, New York, USA.

Quinn, P., L. Gibbs, D. Blake, E. Campbell, D. Johnston, J. Richardson, and A. Coghlan. 2022. Recovery capitals: a collaborative approach to post-disaster guidance. Australian Journal of Emergency Management 37(2):52-62. https://doi.org/10.47389/37.2.52

Ramcharan, R. 2004. Higher or basic education? The composition of human capital and economic development. IMF Staff Papers 51(2):309-326. https://doi.org/10.2307/30035877

Ricardo, D. 2015 (1817). On the principles of political economy and taxation. Cambridge University Press, Cambridge, UK.

Rima, S. D. 2020. Spiritual capital: a moral core for social and economic justice. Gower, London, UK. https://doi.org/10.4324/9781003074861

Robards, M. D., M. L. Schoon, C. L. Meek, and N. L. Engle. 2011. The importance of social drivers in the resilient provision of ecosystem services. Global Environmental Change 21(2):522-529. https://doi.org/10.1016/j.gloenvcha.2010.12.004

Robb, J. 2010. Beyond agency. World Archaeology 42(4):493-520. https://doi.org/10.1080/00438243.2010.520856

Rumbach, A., and J. Nemeth. 2018. Disaster risk creation in the Darjeeling Himalayas: moving toward justice. Environment and Planning E: Nature and Space 1(3):340-362.

Samuelson, P. A., and W. D. Nordhaus. 2010. Economics. McGraw-Hill Irwin, Boston, Massachusetts, USA.

Schirone, M. 2023. Field, capital, and habitus: the impact of Pierre Bourdieu on bibliometrics. Quantitative Science Studies 4(1):186-208. https://doi.org/10.1162/qss_a_00232

Schlüter, M., R. Biggs, H. Clements, A. de Vos, K. Maciejewski, and R. Preiser. 2021. Synthesis and emerging frontiers in social-ecological systems research methods. Pages 453-479 in R. Biggs, A. de Vos, R. Preiser, H. Clements, K. Maciejewski, and M. Schlüter, editors. The Routledge handbook of research methods for social-ecological systems. Routledge, London, UK. https://doi.org/10.4324/9781003021339-40

Schneider, M. R. 2010. Mapping the institutional capital of high-tech firms: a fuzzy-set analysis of capitalist variety and expert performance. Journal of International Business Studies 41(2):246-266. https://doi.org/10.1057/jibs.2009.36

Schuller, T., S. Baron, and J. Field. 2000. Social capital: a review and critique. Pages 1-38 in S. Baron, J. Field, and T. Schuller, editors. Social capital: critical perspectives. Oxford University Press, Oxford, UK. https://doi.org/10.1093/oso/9780198297130.003.0001

Scoones, I. 1998. Sustainable rural livelihoods: a framework for analysis. IDS Working Paper No. 72. Institute of Development Studies, University of Sussex, Brighton, UK. http://www.ids.ac.uk/publication/sustainable-rural-livelihoods-a-framework-for-analysis

Sewell, W. H. 1992. A theory of structure: duality, agency, and transformation. American Journal of Sociology 98(1):1-29. https://doi.org/10.1086/229967

Smit, B., and J. Wandel. 2006. Adaptation, adaptive capacity and vulnerability. Global Environmental Change 16(3):282-292. https://doi.org/10.1016/j.gloenvcha.2006.03.008

Smith, A. 1982 (1776). The wealth of nations: books I-III (Adam Smith; with an introduction by Andrew Skinner). Penguin, Harmondsworth, UK.

Sørensen, E., and J. Torfing. 2003. Network politics, political capital, and democracy. International Journal of Public Administration 26(6):609-634. https://doi.org/10.1081/PAD-120019238

Stahl, G., and G. M. Mu. 2024. Pierre Bourdieu: revisiting reproduction, cultural capital, and symbolic violence in education. Pages 1199-1214 in B. A. Geier, editor. The Palgrave handbook of educational thinkers. Springer International, Cham, Switzerland. https://doi.org/10.1007/978-3-031-25134-4_128

Stevenson, J. R., A. Kwok, H. H. Skurak, A. Davies, T. Hatton, M. Sajoudi, M. Codling, and C. Bowie. 2015. Multi-capital resilience annotated bibliography. National Science Challenges: Resilience to natures challenges, Short Term Project: Working Paper, Deliverable 4. Ministry of Business, Innovation and Employment, Wellington, New Zealand.

Stokols, D., R. Perez Lejano, and J. Hipp. 2013. Enhancing the resilience of human-environment systems: a social-ecological perspective. Ecology and Society 18(1):7. https://doi.org/10.5751/ES-05301-180107

Teixeira da Silva, J. A. 2021. The i100-index, i1000-index and i10, 000-index: expansion and fortification of the Google Scholar h-index for finer-scale citation descriptions and researcher classification. Scientometrics 126(4):3667-3672. https://doi.org/10.1007/s11192-020-03831-9

Thampapillai, D. J., and H. E. Uhlin. 1997. Environmental capital and sustainable income: basic concepts and empirical tests. Cambridge Journal of Economics 21(3):379-394. https://doi.org/10.1093/oxfordjournals.cje.a013676

Thompson, D., and S. Lopez Barrera. 2019. Community resilience and collective agency under significant changes in the natural and built environment: a community capitals framework approach. Local Environment 24(12):1156-1177. https://doi.org/10.1080/13549839.2019.1683723

Thompson, D., and S. Lopez Barrera. 2023. Community resilience, governance, and [in]justice in the context of informal housing after an F3 tornado. Local Development & Society 4 (1):172-192. https://doi.org/10.1080/26883597.2022.2082881

Throsby, D. 1999. Cultural capital. Journal of Cultural Economics 23(1/2):3-12. https://doi.org/10.1023/A:1007543313370

Tomer, J. F. 1998. Organizational capital and joining-up: linking the individual to the organization and to society. Human Relations 51(6):825-846. https://doi.org/10.1023/A:1016926906215

Tönnies, F. 2001. Community and civil society. Cambridge University Press, Cambridge, UK. https://doi.org/10.1017/CBO9780511816260.006

Turgot, A. R. J. 1795. Reflections on the formation and distribution of wealth.

Tzanakis, M. 2011. Bourdieu's social reproduction thesis and the role of cultural capital in educational attainment: a critical review of key empirical studies. Educate 11(1):76-90.

Uekusa, S. 2018. Rethinking resilience: Bourdieu's contribution to disaster research. Resilience 6(3):181-195. https://doi.org/10.1080/21693293.2017.1308635

United Nations University - International Human Dimensions Programme on Global Environmental Change and United Nations Environment Programme (UNU-IHDP and UNEP). 2012. Inclusive wealth report 2012: measuring progress toward sustainability. Cambridge University Press, Cambridge, UK.

Usamah, M., J. Handmer, D. Mitchell, and I. Ahmed. 2014. Can the vulnerable be resilient? Co-existence of vulnerability and disaster resilience: informal settlements in the Philippines. International Journal of Disaster Risk Reduction 10:178-189. https://doi.org/10.1016/j.ijdrr.2014.08.007

Van Riper, C. J., A. Thiel, M. Penker, M. Braito, A. C. Landon, J. M. Thomsen, and C. M. Tucker. 2018. Incorporating multilevel values into the social-ecological systems framework. Ecology and Society 23(3):25. https://doi.org/10.5751/ES-10047-230325

Walker, J., and M. Cooper. 2011. Genealogies of resilience: from systems ecology to the political economy of crisis adaptation. Security Dialogue 42(2):143-160. https://doi.org/10.1177/0967010611399616

Wang, X. 2015. On moral capital. Springer-Verlag, Berlin, Germany. https://doi.org/10.1007/978-3-662-45544-9

Weber, M. 1978. Economy and society: an outline of interpretive sociology. University of California Press, Berkeley, California, USA.

Weichselgartner, J., and I. Kelman. 2015. Geographies of resilience: challenges and opportunities of a descriptive concept. Progress in Human Geography 39(3):249-267. https://doi.org/10.1177/0309132513518834

White, I., and P. O'Hare. 2014. From rhetoric to reality: which resilience, why resilience, and whose resilience in spatial planning? Environment and Planning C: Government and Policy 32 (5):934-950. https://doi.org/10.1068/c12117

Wiederhold, G. 2013. Valuing intellectual capital: multinationals and taxhavens. Springer Science, New York, New York, USA. https://doi.org/10.1007/978-1-4614-6611-6

Wilson, G. A. 2010. Multifunctional 'quality' and rural community resilience. Transactions of the Institute of British Geographers 35(3):364-381. https://doi.org/10.1111/j.1475-5661.2010.00391.x

Wilson, G. A. 2012a. Community resilience, globalization, and transitional pathways of decision-making. Geoforum 43 (6):1218-1231. https://doi.org/10.1016/j.geoforum.2012.03.008

Wilson, G. 2012b. Community resilience and environmental transitions. Routledge, London, UK. https://doi.org/10.4324/9780203144916

World Bank. 2014. Estimating the value of human capital within the World Bank wealth accounting framework. Working paper in the Latin America and the Caribbean Region (LAC) series on green and inclusive growth, No. 94765. World Bank, Washington, D.C., USA.

World Economic Forum. 2015. The human capital report: employment, skills, and human capital. Global challenge insight report. World Economic Forum, Geneva, Switzerland. http://www3.weforum.org/docs/WEF_Human_Capital_Report_2015.pdf

Young, O. R., F. Berkhout, G. C. Gallopin, M. A. Janssen, E. Ostrom, and S. van der Leeuw. 2006. The globalization of socio-ecological systems: an agenda for scientific research. Global Environmental Change 16(3):304-316. https://doi.org/10.1016/j.gloenvcha.2006.03.004

Zautra, A., J. Hall, and K. Murray. 2008. Community development and community resilience: an integrative approach. Community Development 39(3):130-147. https://doi.org/10.1080/15575330809489673