



The Dark Side of Resilience

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Abstract

Is resilience always adaptive and functional, or can resilience be maladaptive in contexts where it masks vulnerability or prevents effective action to address risk? In this paper, we propose a new reading of resilience research which challenges the prevailing positive perspective and instead proposes that negative aspects of resilience are common. We focus on studying resilience on a spectrum, distinguishing between degrees of functionality by asking three questions: (1) Is there a wrong degree of resilience? (2) Is there a wrong context for resilience? and (3) Is there a wrong type of resilience? We conclude with reflections on the dark side of resilience by differentiating between functional and less functional adaptation in relation to contexts, degrees of risk, and types of resilience shown.

Keywords Human resilience · Context · Resilience paradox · Maladaptive coping · Dysfunctional systems

As Darwin’s theory of survival of the fittest so eloquently (and wrongly) explained, the weak and vulnerable are undesirable because they are not expected to achieve optimal outcomes. We now understand that diversity is key to population success and that characteristics that appear to be signs of weakness can benefit a species when social and ecological conditions change. Attention to positive adaptation within a limited scope of performance metrics, however, continues to characterize human resilience research, tracing its history back to studies by Garnezy (1974), Rutter (1990), Werner (Werner & Smith, 1982), and others who identified the significant role of positive (socially desirable) adaptation in at-risk children who despite the odds showed high levels of achievement. This has not been without benefit as resilience research has contributed to policy changes, prevention strategies, and interventions that have helped foster positive adaptation in flawed contexts (Ungar, 2020; Luthar, 2006; Masten, Cutuli, Herbers, & Reed, 2009; Torres, Southwick, & Mayes, 2011).

For the last several decades, however, there has also been ongoing debate about the definition, conceptualization, and measurement of resilience, with many models of resilience encouraging what Howell and Voronka (2012) refer to as “a technology of looking inward” (p. 4–5), with populations like soldiers and their families (Howell, 2015), university students (Aubrecht, 2012), and youth in foster care (Drapeau, Saint-Jacques, Lépine, Bégin, & Bernard, 2007) dissuaded from questioning context-related adversities like racism and other forms of social injustice. They are, instead, directed towards positive thinking and self-actualization. Aside from making individuals the locus of change, much of this individualized discourse on resilience suggests that there is a right way to adapt to risk. Though we are not arguing for the superiority of vulnerability, we are suggesting a more contextualized appreciation for what resilience should look like in different contexts of risk and greater focus to which regimes of cognition and behavior have the most value for different populations. When precisely is resilience functional and when is it less functional?

We are not the first to pose this question, though we are the first to explore the concept of the dark side of resilience with the psychological state and social and physical ecologies of individuals in mind. Previous resilience scholars have pondered the dubiousness of resilience with what has been referred to as a ‘paradox.’ For example, Atkinson, Martin, and Rankin (2009) discussed the possibility of looking at resilience in a way which may not always be positive, whereby

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they revisited the concept of resilience in their attempt to warn against “dangers of popular movements based on uncertain evidence” (2008, p.144). Elsewhere, Kuhlicke (2013) explored the dark side of resilience in relation to abuses of power, enabling those with privilege to “define what is right and what is wrong” (p. 61). Together, these references hint at something amiss with resilience research and caution us to consider *what should not be read as resilience*, or in other words, when the concept of resilience stops being positive. We begin our argument with a brief review of the concept of resilience itself, highlighting the benefits and trade-offs which underscore the degrees of functionality in relation to adaptation.

Resilience as a Changing Concept

The concept of resilience is becoming increasingly multisystemic as studies of positive human adaptation under stress are inspiring research into fields as diverse as resilient communication systems (Anderson et al., 2020), economics (Perrings, 2006), political science (Olsson et al., 2006), sociology (Adger, 2000), and urban planning (Pickett, McGrath, Cadenasso, & Felson, 2014). Moreover, resilience has been related to other scientific concepts such as natural capital (Deutsch, Folke, & Skånberg, 2003), sustainability (Elmqvist et al., 2019), globalization (Armitage & Johnson, 2006), and ecological justice (Brown, 2016). While diversity of fields implies diversity of definitions, psychological resilience remains relatively homogeneous in its understanding of positive development as a “dynamic process encompassing positive adaptation within the context of significant adversity” (Luthar, Cicchetti, & Becker, 2000, p.543). Importantly, exposure to significant threat or severe adversity and the achievement of positive adaptation are consistent attributes of resilience though who defines a state of adversity and which outcomes are thought to be positive remain discursively challenging.

Adaptation typically refers to the developmental process (adjustment) by which individuals deal with difficult situations. Though other disciplines emphasize the need for environments to accommodate or facilitate a population’s survival under stress, psychological resilience has tended to refer to how an individual’s positive adaptation potentiates success rather than how a change in the environment surrounding the individual could contribute to personal transformation (Ungar, 2019). Positive adaptation refers to “adjustment that is much better than what would be expected” (Luthar, Crossman, & Small, 2015, p. 248) such as academic achievement or restraint from substance abuse. For this reason, resilience research explores the processes, moderators, and mechanisms that facilitate positive adaptation in the hope of providing a guide for the development of targeted interventions

aimed at attenuating the deleterious effects of maltreatment or social vulnerabilities (Houshyar, Gold, & DeVries, 2013). Some researchers, however, have argued that resilience is of tenuous scientific utility because it reflects ontogenetic instability (Kaplan, 1999, 2013). For example, although a proportion of at-risk children excel at a particular point in time, many falter subsequently and manifest substantial deterioration in their levels of adaptation (Tarter et al., 1999).

Positive adaptation can also overlook the potential for personal enhancement because of risk exposure. In studies of adaptation to life crisis, investigators have often failed to consider the possibility of a new and better level of adaptation that reflects personal growth (posttraumatic growth) rather than a return to the status quo (Kaplan, 2005; Schaefer & Moos, 1992). Thus, personal growth requires a period of decline in functioning if new capacities are to be realized. With few exceptions, patterns of coping like social withdrawal and maladaptive coping may produce long-term benefits or provide a temporary escape from a toxic social environment, but have generally not been understood as resilience (for a discussion, see Ungar, 2015).

In recent years, however, particularly in the fields of urban resilience and related to the topic of climate change, researchers have started to point to the paradox and costs of resilience. For example, Chelleri, Waters, Olazabal, and Minucci (2015) speak of urban resilience as “not necessarily a normatively positive concept anymore” (p.1) when the trade-offs are taken into account and the resilience of one ecological system comes at the cost of co-occurring systems. They suggest a focus on sustainability rather than resilience due to the assumption that resilience in a particular system is only being achieved at the expense of another system’s vulnerability. Similarly, Brewington (2016) speaks of the costs of maintaining social-ecological resilience due to the heterogeneous nature of societies which lead to “social and environmental perturbations” (p. 95), which is more often than not, “borne by those with the least social power” (p. 95).

Similarly, studies in the field of psychology have shown that among adolescents who experience significant adversities, those who evidence successful adaptation often struggle with covert psychological difficulties over time, such as problems of depression and posttraumatic stress (see Luthar, Doernberger, & Zigler, 1993), a phenomenon attributable to overloaded stress response systems common to resilient children in persistently violent environments. Evidence of such variations across domains has led some to question whether resilience is a veridical construct as opposed to a mythical entity (Fischer et al., 1987; Liddle, 1994).

For these reasons, our discussion here benefits from a multidisciplinary understanding of resilience that contextualizes psychological adaptation with theory informed by sociology (neoliberalism and power relations), ecology, and human history.

Resilience on a Spectrum: Functional vs. Less Functional¹

With few exceptions, the existing references to psychological resilience as a paradox (more resilience may actually create more vulnerability in some contexts) are few, though the paradox has been discussed much more in the context of climate change where catastrophic weather events are destroying human capital but allowing natural ecosystems to reclaim historical territory like coastal wetlands that thrive after a hurricane or forests after a wildfire. To explore this paradox, we focus on studying resilience on a spectrum, distinguishing between more *and* less functional resilience. Specifically, we propose three questions: (1) Is there a wrong degree of resilience? (2) Is there a wrong context for resilience? and (3) Is there a wrong type of resilience?

Is There a Wrong Degree of Resilience?

Early definitions of resilience contrasted the concept of positive development under stress with the condition of vulnerability, making resilience synonymous with invulnerability (Anthony, 1987; for detailed discussions refer to Cannon, 2008; Cutter, Boruff, & Shirley, 2003). While this polarity has been challenged and resilience is now understood as its own unique dimension of well-being (one is only more or less resilient, and a low level of resilience is conceptually different from one's degree of vulnerability). Despite the change, the notion that there is an optimal amount of resilience persists and that higher levels of resilience are correlated with lower vulnerability. In practice, this means that researchers like Prince-Embury (2013) assumed that more educational supports for children with learning disabilities made them less vulnerable to stigma, bullying, or delinquency. This may have the appearance of truth, but in fact, increases to the factors that make children resilient are orthogonally related to decreases in vulnerability. As Keyes (2002) has suggested, the factors that promote mental health are distinct from those that potentiate mental disorder. A child with a learning challenge, for example, may receive all the supports she requires to thrive academically but still cope with a toxic social environment which threatens her psychological and physical health outside the classroom.

Vulnerability, therefore, operates on its own continuum, placing individuals at more or less risk. In a systematic definition of vulnerability, Scotti, Beach, Northrop, Rode, and

Forsyth (1995) identified three categories: biological (genetic and physiological dispositions), historical (forms of psychopathology such as an individual's socio-economic status), and psychological vulnerability (an individual's cognitions and learned behavior). With regard to psychological vulnerability, one's past experience with adversity (Paton, Smith, & Violanti, 2000), frequency of exposure, and timing of stressful events, as well as the individual's health status, fatigue, and psychological stress, can all influence the amount of vulnerability an individual experiences (Flin, 1996). None of this, however, necessarily compromises ego-resiliency (Anthony, 1987) as the individual's resilience will reflect his "coping skills, acquired defensiveness, competence and support from external sources" (p.28). For this reason, it follows that even where there is evidence of vulnerability, the person who exhibits resilience may function in ways that suggest a range of coping styles from sociopathy (he survives but shows no regard for the welfare of others) to heroes (those who appear to bounce back from adversity without any negative consequences). Each state of resilience along the continuum reflects the resources available. This is to say, invulnerability is context-dependent and is therefore not always perceived as positive by institutional leaders like mental health professionals, educators, employers, and government policymakers (Ungar, 2004).

Shifting from the vulnerability continuum to degrees of resilience, one's ability to mitigate exposure to risk and enhance functioning can range from less optimal or naïve to functional and realistic. For example, psychological concepts like 'false hope syndrome' and 'self-enhancing trait' can appear similar to resilience-related factors like optimism and self-esteem, even though the former do little to create sustainable patterns of coping and may actually undermine the individual's motivation to act in socially desirable ways that are synonymous with thriving.

Likewise, Polivy and Herman (2000) introduced "false hope syndrome" as a way to explain how individuals who have high hopes and expectations at the start of a process of personal change can actually be harmed by their optimism: "When these unrealistic expectations are not met, the outcome of attempted self-modification may be disappointment, discouragement, and a perception of oneself as a failure" (p. 82). Self-confidence and high levels of self-efficacy—factors necessary for personal resilience—are only helpful when the goal or the desired outcome is realistically achievable.

Furthermore, Snyder's (Snyder, Rand, King, Feldman, & Woodward, 2002) "hope theory" theorizes different states of "high hope" and "low hope". Individuals who tend to have positive illusions about themselves and the outside world are *high hoppers* who differ from *low hoppers* who distort reality through denial and repression. Although both groups misperceive reality, the ones with high hopes are closer to false hope. Musschenga (2019) has discussed the same topics

¹ In order to avoid creating yet another false dichotomy, functionality is not compared with an end-state of dysfunctionality, and is rather compared with 'less-functional.' We hope that this does not lead to any polarizations, as we believe humans are complex beings and such black and white adjectives cannot do justice to human actions/behaviors. However, these two terms are used in this paper for the lack of better words.

by introducing “normative and epistemic justification” (p. 429) based on Day’s (1991) formulations of hope. For Musschenga, hope can be justified only if it is realistic, has cognitive elements, and is reasonable. This kind of hope, he believes, is epistemically justified and different from false hope in the sense that the latter is “epistemically unjustified hope” (p. 430). Shaw, Scully, and Hart (2014) also observed that over-reliance on one’s coping ability was a source of fragility in the context of a natural disaster like a flood, where inhabitants of the Solomon Islands in 2002 displayed levels of self-reliance which the researchers refer to as “negative resilience” as it produced “resilience that is impossible to deliver” (p. 200).

Similarly, trait self-enhancement can be initially constructive but can also lead to darker consequences. Self-enhancement is defined as “the tendency toward overly positive or unrealistic self-serving biases” (Bonanno, Rennike, & Dekel, 2005, p. 985) which has been defended as a mediating factor in effective coping and resilience (Taylor & Brown, 1988). For example, Bonanno and his team (Bonanno et al., 2005) studied self-enhancement as a resilience predictor among 9/11 survivors in New York City. Taylor, Lerner, Sherman, Sage, and McDowell (2003) observed how self-enhancers responded to stress better than non-self-enhancers. Elsewhere, Bonanno, Field, Kovacevic, and Kaltman (2002) showed the positive effect of self-enhancement on adjustment to real-world stressors. Although trait self-enhancers evidence positive traits like high self-esteem, there has been critique over how this trait hides the underlying personal and social liabilities such as unhampered narcissism (for details, see Bonanno et al., 2005). In other works, self-enhancers have been described as manipulative or emotionally withdrawn (see Paulhus & Williams, 2002). Self-enhancers’ strength in situations such as bereavement may, however, act in their favor and make them appear resilient to emotional turmoil but leads to their being judged unfavorably and unfeeling.

In summary, an excessive degree of resilience, manifested as high hope and/or self-enhancing, can lead to undesirable outcomes. The long-term social and psychological difficulties which result from this excessive degree of individual resilience conjures up a picture as the darker side to resilience and a possible dysfunctional aspect to positive adaptation.

Is There a Wrong Context for Resilience?

Polivy Considering “resilience cannot be conceptualised in contexts that are risk-free” (Theron, 2012, p. 334), the context itself plays a leading role in what we understand as the resilience paradox. For example, resilience has been measured in contexts of loss and grief (e.g., Mancini & Bonanno, 2011), urban poverty and community violence (Luthar & Goldstein, 2004), maltreatment (Afifi & MacMillan, 2011; Nishimi et al.,

2020), serious mental illness (e.g., Meyer & Mueser, 2011), sexual assault (Frey, Beesley, Abbott, & Kendrick, 2017; Resnick, Guille, McCauley, & Kilpatrick, 2011), terrorism (Hobfoll, Hall, Horsey, & Lamoureux, 2011), catastrophic life events (Cox Jr, 2012; Riolli, Savicki, & Cepani, 2002), and economic challenge (e.g., Buckner & Waters, 2011). Therefore, some form of challenging context must exist for resilience to occur. Our question is whether every adverse context calls for a resilience response on the individual’s side. Though the field of resilience research assumes everyone benefits from the presence of resilience-enhancing qualities, some contexts make these factors harmful to the long-term survival of the individual. For example, in regard to disaster risk reduction, resilience can be defined as “The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions” (UNISDR, 2009, p. 24). Though the definition presupposes resilience to be desirable, Ogunbode et al. (2019) describe a “resilience paradox” (p. 703) in relation to climate change where reduced negative emotional responses to disaster can translate into less motivation to undertake climate change mitigation. They conclude that “support for victims of extreme weather should include explicit acknowledgement of the involvement of climate change and the need for action to mitigate future climate risks” (Ogunbode et al., 2019, p.703). Their conclusion—although limited to natural disasters and climate change—supports our overall hypothesis that different forms of individual resilience are not functional or optimal in every context.

Similarly, in contexts of poverty, resilience may not be the solution either if resilience means adapting to the idea of meritocracy, defined as “a society in which social position is absolutely a product of innate ability, coupled with application or effort - with the implication that social origins have no influence on outcomes” (Boliver & Byrne, 2013, p. 52). For example, Carlin (2013), in his research on young people growing up in communities with long-term economic challenges, criticizes the positive attribution of strength in a context of chronic unemployment, social isolation, or violence. Diprose’s (2015) perspective on how resilience is futile follows the same line of argument. She believes that “promotional culture celebrates overcoming-the-odds performance” (p.50) by placing responsibility solely on individuals for change. The outcome of constant striving in a context deprived of resources is likely to be learned helplessness (Seligman, 1975). In contrast, a healthier experience of resilience than ‘bouncing back’ from poverty is Manyena, O’Brien, O’Keefe, and Rose’s (2011) concept of “bounce forward” whereby individuals and communities limit “poverty (by conserving and developing resources) and vulnerability (by reducing risk to people and assets)” (p. 417).

In summary, in particular contexts, resilience can be wrongly deployed as an inducement to tolerate disparity and inequality, accepting the deferral of demands for change, or as an excuse to assign individuals who lack power the responsibility to change their lives.

Is There a Wrong Usage for Resilience?

Use of the term resilience has been traced back to Greek writers from Seneca the Elder to Ovid and Cicero, through Francis Bacon who first used the term in its modern scientific form in his *Sylva Sylvarum* (1625), and its first use in connection with disaster recovery by Tomes (1857), to finally being popularized in the study of social ecological systems by Holling (1973) and then in psychology by a lengthy list of researchers in the late 1970s and early 1980s (Alexander, 2013, p. 2709–10). Putting aside the early meanings and usages of the term (for the etymology of the term, see Alexander, 2013), before its promotion by psychology in the 20th century, the term had been used to connote positive qualities like flexibility and even sometimes negative ones like fickleness (see Alexander, 2013). Historically, however, the term is typically used to describe fortitude under stress that results in socially expected and desirable outcomes. While on the surface, these are preferred outcomes, use of the term resilience has also been misapplied to situations where the situation might more accurately have been described as producing vulnerability.

One such example is the famous Antarctic adventure by the British explorer, Ernest Shackleton. He and his team managed to survive 2 years shipwrecked in the cold wilderness. The expedition passed into history as an example of British heroism (Lansing, 2001), and Shackleton was praised for his unique faith and optimism. One way to look at Schackleton's case would be to interpret his perseverance as signs of personality resilience. This perspective would praise his superhuman bravery. However, such a perspective would also imply that any behavior, which deviates from that sort of bravery, is to be blamed for being a sign of timidity. When we set the *norm* to be a case like Schackleton's, the average person who may have (wisely) turned back and not endangered their ship and crew may seem weak and less resilient (or not resilient at all). In other words, use of the term resilient, when applied to exceptional human endeavors, may inadvertently make resilience unobtainable, or misconstrue the benefits of more measured action. This becomes even more questionable when we consider statements such as "The power of brave should be an action-prospect for all related to resilient programming" (Sanders, 2018, p. 1). Although research has shown that "bravery is linked to increased resilience, decreased PTSD-related symptomatology, and greater feelings of personal competence" (Kugel, Hausman, Black, & Bongar,

2017, n.p.), there have been some criticism regarding the interrelatedness of bravery and resilience. For example, John Diamond (1998), a New York columnist, in his autobiography, *C: Because Cowards Get Cancer Too*, made reference to this misconception, critiquing the mistaken assumption that people who died from cancer had not fought hard enough. Likewise, the popularization of Duckworth's (2016) studies of grit originated from the work she did with the US military. While grit predicted which soldiers finished training, even Duckworth admits that self-selecting out of training when it became difficult was a wise (and resilient) move for soldiers who realized that the role they were training for would be a bad fit for them mentally or physically. While stories of grit or bravery are always constructed as positive, failure is also a signifier of resilience if one changes the metrics of success to include the exercise of individual preferences. To illustrate this point another way, social norms have always played a role in the positive perception of resilience. For example, over time, different reactions to anxiety have been seen as adaptive, including opium addiction in the 19th century or compliance with psychopharmacological interventions in the 1990s. These days, however, anxiety disorders carry with them expectations that people seek therapy in addition to medication, redefining the right course of action and the right, or more resilient, way of dealing with anxiety (Harper & Speed, 2014).

In a related context, Furedi (2014) discusses how processes of representation have a legitimizing function for existing orthodoxies and how they contribute to the ongoing hegemonic dominance of medical frames of reference. Furedi contextualizes the rise and growth of therapeutic culture and identifies the ways in which this creates specific 'subject positions' that complement wider forces of domination within psychiatry and society. Likewise, it has been argued that resilience thinking consistently relies on the assumption that the social order is based upon consensus, while the neoliberal capitalist system involves dispossession and exploitation in ways that are inimical to the acquisition of safety and robust defenses against hazards (Hornborg, 2009). There have been other similar attacks on resilience that reference its neoliberal implications. Chandler, among the most active critics of resilience in the postmodern age, in a recent coauthored book with Chandler and Reid 2016, maintains that the problem of neoliberalism is that after exposure to risk, the individual, who is acting resilient, bounces back towards their initial state before exposure to the stressor, ignoring the fact that the original state was flawed, likely because of social or financial inequality or misconduct by governments and institutions. In all such cases, the resilience of the compliant individual is not only destructive, but a catalyst for further injustice. To illustrate, we can return to the example of the flooding that affected the Solomon Islands. Survivors recovered largely on their own but they built the exact same one-story houses that could not withstand future floods (Shaw et al., 2014). To describe their efforts as

resilience misuses the concept, suggesting that bad decisions that imperil a population (or an expedition to the Antarctic) should be applauded as successful even though they show signs of poor judgment or a lack of resources. The Solomon Islanders may have had no choice but to rebuild on land previously occupied, but to call this return to an earlier regime of behavior resilience, undermines the need for social transformation.

Similarly, in a cautionary note on the nature of resilience, Bracke (2016) in her paper *Vulnerability and Resistance in Times of Resilience*, using Berlant's terminology 'cruel optimism', writes that "individuals in our society remain so attached to fantasies of upward mobility, job security, political and social equality, and durable intimacy, despite the evidence suggesting that these fantasies are unachievable" (p. 62). Bracke tags resilience as mildly cruel if "resilience holds a promise of individual survival" in a world full of threats as imminent as ecological disaster, and as "extensively" cruel if one considers the empty "promises of flourishing" where "grassroots support" is failing (p. 64). In short, resilience as a concept does not necessarily seed advocates; rather some theorists contend its negative nature, or go as far as creating an anti-resilience camp (Evans & Reid, 2014).

Concluding Remarks

Humans have always wanted to be strong. Our strength has been framed differently over time, from mere survival to recovery to flourishing. In the academic world, prominent resilience scholars (Ungar, 2012; Masten & Wright, 2010; Rutter, 2012) maintain that the study of resilience is incomplete. Masten and Wright (2010), for example, criticize theories of resilience for their being rooted in the experiences of advantaged populations. In such contexts, the term resilience can be misused to mask structural and psychological problems. Arguably, research on human capabilities and adaptive systems that promote healthy development and functioning have the potential to inform policy and programs that foster competence and human capital while also preventing problems, but only if we remain sensitive to the hegemonic tendencies when we use a terminology like resilience to imply all adaptation under stress is optimal.

With this article, we seek to open discussion of the dark side of resilience, building on the disjointed body of scholarship which has suggested that resilience is not always positive. Further research is needed to examine individual and community resilience and how the many aspects of personality and environment interact to produce truly sustainable and benevolent transformations in the ways people adapt to significant personal and structural challenges.

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References

- Adger, W. N. (2000). Social and ecological resilience: are they related? *Progress in Human Geography*, 24(3), 347–364.
- Affi, T. O., & MacMillan, H. L. (2011). Resilience following child maltreatment: A review of protective factors. *The Canadian Journal of Psychiatry*, 56(5), 266–272.
- Alexander, D. E. (2013). Resilience and disaster risk reduction: an etymological journey. *Natural Hazards & Earth System Sciences*, 13(11), 2707–2716.
- Anderson, T., Busby, J., Gouglidis, A., Hough, K., Hutchison, D., & Rouncefield, M. (2020). Human and organizational issues for resilient communications. In J. Rak & D. Hutchison (Eds.), *Guide to Disaster-Resilient Communication Networks. Computer Communications and Networks* (pp. 791–807). Cham: Springer.
- Anthony, E. J. (1987). Risk, vulnerability, and resilience: An overview. In E. J. Anthony & B. J. Cohler (Eds.), *The invulnerable child* (pp. 3–48). New York: Guilford Press.
- Armitage, D., & Johnson, D. (2006). Can resilience be reconciled with globalization and the increasingly complex conditions of resource degradation in Asian coastal regions? *Ecology and Society*, 11(1) Retrieved August 11, 2020, from www.jstor.org/stable/26267816.
- Atkinson, P. A., Martin, C. R., & Rankin, J. (2009). Resilience revisited. *Journal of Psychiatric and Mental Health Nursing*, 16(2), 137–145.
- Aubrecht, K. (2012). The new vocabulary of resilience and the governance of university student life. *Studies in Social Justice*, 6(1), 67–83.
- Boliver, V., & Byrne, D. (2013). Social mobility: The politics, the reality, the alternative. *Soundings*, 55(55), 61–60.
- Bonanno, G. A., Field, N. P., Kovacevic, A., & Kaltman, S. (2002). Self-enhancement as a buffer against extreme adversity: Civil War in

- Bosnia and traumatic loss in the United States. *Personality and Social Psychology Bulletin*, 28, 184–196.
- Bonanno, G. A., Rennicke, C., & Dekel, S. (2005). Self-enhancement among high exposure survivors of the September 11th terrorist attack: Resilience or social maladjustment. *Journal of Personality and Social Psychology*, 88, 984–998.
- Bracke, S. (2016). Bouncing back: Vulnerability and resistance in times of resilience. In J. Butler, Z. Gambetti, & L. Sabsay (Eds.), *Vulnerability in resistance* (pp. 52–75). Durham: Duke University Press.
- Brewington, S. D. (2016). The social costs of resilience: An example from the Faroe Islands. *Archaeological Papers of the American Anthropological Association*, 27(1), 95–105.
- Brown, K. (2016). *Resilience, development and global change*. New York: Routledge.
- Buckner, J. C., & Waters, J. S. (2011). Resilience in the context of poverty. In S. M. Southwick, B. T. Litz, D. Charney, & M. J. Friedman (Eds.), *Resilience and mental health: Challenges across the lifespan* (pp. 264–275). New York: Cambridge University Press.
- Cannon, T. (2008). Vulnerability, innocent disasters and the imperative of cultural understanding. *Disaster Prevention and Management*, 17, 350–357.
- Carlin, E. (2013). Youth transitions, social exclusion and the troubling concept of resilience. *NYRIS12*, 12–14 June, 2013, Institute for International Social Studies, Tallinn University
- Chandler, D., & Reid, J. (2016). *The neoliberal subject: Resilience, adaptation and vulnerability*. London/New York: Rowman & Littlefield.
- Chelleri, L., Waters, J. J., Olazabal, M., & Minucci, G. (2015). Resilience trade-offs: Addressing multiple scales and temporal aspects of urban resilience. *Environment and Urbanization*, 27(1), 181–198.
- Cox Jr., L. A. (2012). Community resilience and decision theory challenges for catastrophic events. *Risk Analysis: An International Journal*, 32(11), 1919–1934.
- Cutter, S. L., Boruff, B. J., & Shirley, W. L. (2003). Social vulnerability to environmental hazards. *Social Science Quarterly*, 84, 242–261.
- Day, J. P. (1991). *Hope: A Philosophical Inquiry*. Philosophical Society of Finland: Helsinki.
- Deutsch, L., Folke, C., & Skånberg, K. (2003). The critical natural capital of ecosystem performance as insurance for human well-being. *Ecological Economics*, 44(2–3), 205–217.
- Diamond, J. (1998). *C: Because cowards get cancer too*. London: Vermilion.
- Diprose, K. (2015). Resilience is futile. *Soundings*, 58(58), 44–56.
- Drapeau, S., Saint-Jacques, M. C., Lépine, R., Bégin, G., & Bernard, M. (2007). Processes that contribute to resilience among youth in foster care. *Journal of Adolescence*, 30(6), 977–999.
- Duckworth, A. (2016). *Grit: The power of passion and perseverance*. Toronto: HarperCollins.
- Elmqvist, T., Andersson, E., Frantzeskaki, N., McPhearson, T., Olsson, P., Gaffney, O., Takeuchi, K., & Folke, C. (2019). Sustainability and resilience for transformation in the urban century. *Nature Sustainability*, 2(4), 267–273.
- Evans, B., & Reid, J. (2014). *Resilient life: The art of living dangerously*. Cambridge: Polity Press.
- Fischer, K. W., Lawrence, D., Kokes, R. F., Cole, R. E., Perkins, P. M., & Wynne, L. C. (1987). Competent children at risk: A study of well-functioning offspring of disturbed parents. In E. J. Anthony & B. Cohler (Eds.), *The invulnerable child* (pp. 221–228). New York: Guilford Press.
- Flin, R. (1996). *Sitting in the hot seat: Leaders and teams for critical incident management*. Chichester: Wiley.
- Frey, L. L., Beesley, D., Abbott, D., & Kendrick, E. (2017). Vicarious resilience in sexual assault and domestic violence advocates. *Psychological Trauma: Theory, Research, Practice, and Policy*, 9(1), 44.
- Furedi, F. (2014). Is it justice? Therapeutic history and the politics of recognition. In E. Speed, J. Moncrieff, & M. Rapley (Eds.), *De-Medicalizing Misery II* (pp. 1–18). London: Palgrave Macmillan.
- Garnezy, N. (1974). The study of competence in children at risk for severe psychopathology. In E. J. Anthony & C. Koupernik (Eds.), *The child in his family: Children at Psychiatric risk: III* (p. 547). New York: Wiley.
- Harper, D., & Speed, E. (2014). Uncovering recovery: The resistible rise of recovery and resilience. In E. Speed, J. Moncrieff, & M. Rapley (Eds.), *De-Medicalizing Misery II* (pp. 40–57). London: Palgrave Macmillan.
- Hobfoll, S. E., Hall, B., Horsey, K. J., & Lamoureux, B. E. (2011). Resilience in the face of terrorism: Linking resource investment with engagement. In S. M. Southwick, B. T. Litz, D. Charney, & M. J. Friedman (Eds.), *Resilience and mental health: Challenges across the lifespan* (pp. 253–263). New York: Cambridge University Press.
- Holling, C. S. (1973). Resilience and stability of ecological systems. *Annual Review of Ecology and Systematics*, 4(1), 1–23.
- Hornborg, A. (2009). Zero-sum world: challenges in conceptualizing environmental load displacement and ecologically unequal exchange in the world-system. *International Journal of Comparative Sociology*, 50(3–4), 237–262.
- Houshyar, S., Gold, A., & DeVries, M. (2013). Resiliency in maltreated children. In S. Goldstein & R. Brooks (Eds.), *Handbook of Resilience in Children* (pp. 161–179). Boston: Springer.
- Howell, A. (2015). Resilience, war, and austerity: The ethics of military human enhancement and the politics of data. *Security Dialogue*, 46(1), 15–31.
- Howell, A., & Voronka, J. (2012). Introduction: The politics of resilience and recovery in mental health care. *Studies in Social Justice*, 6(1), 1–7.
- Kaplan, H. B. (1999). Towards an understanding of resilience: A critical review of definitions and models. In M. D. Glantz & J. L. Johnson (Eds.), *Resilience and development: Positive life adaptations* (pp. 17–84). New York: Kulwer/Plenum.
- Kaplan, H. B. (2005). Understanding the concept of resilience. In S. Goldstein & R. B. Brooks (Eds.), *Handbook of Resilience in Children* (pp. 39–47). Boston: Springer.
- Kaplan, H. B. (2013). Reconceptualizing resilience. In S. Goldstein & R. B. Brooks (Eds.), *Handbook of Resilience in Children* (pp. 39–55). Boston: Springer.
- Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Research*, 43, 207–222.
- Kugel, U., Hausman, C., Black, L., & Bongar, B. (2017 July). *Psychology of physical bravery*. *Oxford handbooks online: Scholarly research reviews*. <https://doi.org/10.1093/oxfordhb/9780199935291.001.0001/oxfordhb-9780199935291-e-36>.
- Kuhlicke, C. (2013). Resilience: A capacity and a myth: Findings from an in-depth case study in disaster management research. *Natural Hazards*, 67(1), 61–76.
- Lansing, A. (2001). *Endurance: Shackleton's Incredible Voyage*. London: Weidenfeld & Nicolson.
- Liddle, H. A. (1994). Contextualizing resiliency. In M. C. Wang & E. W. Gordon (Eds.), *Educational resilience in inner-city America: Challenges and prospects* (pp. 167–177). Hillsdale: Erlbaum.
- Luthar, S. S. (2006). Resilience in development: A synthesis of research across five decades. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology: Risk, disorder, and adaptation* (pp. 739–795). New Jersey: John Wiley & Sons.
- Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, 71(3), 543–562.
- Luthar, S. S., Crossman, E. J., & Small, P. J. (2015). Resilience and adversity. In R. M. Lerner (Ed.), *Handbook of Child Psychology and Developmental Science* (pp. 1–40). <https://doi.org/10.1002/9781118963418.childpsy307>.

- Luthar, S. S., Doernberger, C. H., & Zigler, E. (1993). Resilience is not a unidimensional construct: Insights from a prospective study on inner-city adolescents. *Development and Psychopathology*, 5, 703–717.
- Luthar, S. S., & Goldstein, A. (2004). Children's exposure to community violence: Implications for understanding risk and resilience. *Journal of Clinical Child and Adolescent Psychology*, 33(3), 499–505.
- Mancini, A. D., & Bonanno, G. A. (2011). Loss and grief: The role of individual differences. In S. M. Southwick, B. T. Litz, D. Charney, & M. J. Friedman (Eds.), *Resilience and mental health: Challenges across the lifespan* (pp. 189–199). Cambridge: Cambridge University Press.
- Manyena, B., O'Brien, G., O'Keefe, P., & Rose, J. (2011). Disaster resilience: A bounce back or bounce forward ability? *Local Environment: The International Journal of Justice and Sustainability*, 16(5), 417–424.
- Masten, A. S., Cutuli, J. J., Herbers, J. E., & Reed, M. J. (2009). Positive psychology across the lifespan. In S. J. Lopez & C. R. Snyder (Eds.), *Oxford Handbook of Positive Psychology* (2nd ed., pp. 117–132). Oxford, UK: Oxford University Press.
- Masten, A. S., & Wright, M. O. (2010). Resilience over the lifespan: Developmental perspectives on resistance, recovery, and transformation. In J. W. Reich, A. J. Zautra, & J. S. Hall (Eds.), *Handbook of adult resilience* (pp. 213–237). New York: The Guilford Press.
- Meyer, P. S., & Mueser, K. T. (2011). Resiliency in individuals with serious mental illness. In S. M. Southwick, B. T. Litz, D. Charney, & M. J. Friedman (Eds.), *Resilience and mental health: Challenges across the lifespan* (pp. 189–199). Cambridge: Cambridge University Press.
- Musschenga, B. (2019). Is there a problem with false hope? *The Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine*, 44(4), 423–441.
- Nishimi, K., Choi, K. W., Davis, K. A., Powers, A., Bradley, B., & Dunn, E. C. (2020). Features of childhood maltreatment and resilience capacity in adulthood: Results from a large, community-based sample. *Journal of Traumatic Stress*, 33, 665–676. <https://doi.org/10.1002/jts.22543>.
- Ogunbode, C. A., Böhm, G., Capstick, S. B., Demski, C., Spence, A., & Tausch, N. (2019). The resilience paradox: Flooding experience, coping and climate change mitigation intentions. *Climate Policy*, 19(6), 703–715.
- Olsson, P., Gunderson, L. H., Carpenter, S. R., Ryan, P., Lebel, L., Folke, C., & Holling, C. S. (2006). Shooting the rapids: Navigating transitions to adaptive governance of social-ecological systems. *Ecology and Society*, 11(1) Retrieved August 11, 2020, from www.jstor.org/stable/26267806.
- Paton, D., Smith, L., & Violanti, J. (2000). Disaster response: risk, vulnerability and resilience. *Disaster Prevention and Management*, 9(3), 173–180.
- Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality*, 36(6), 556–563.
- Perrings, C. (2006). Resilience and sustainable development. *Environment and Development Economics*, 11(4), 417–427.
- Pickett, S. T., McGrath, B., Cadenasso, M. L., & Felson, A. J. (2014). Ecological resilience and resilient cities. *Building Research & Information*, 42(2), 143–157.
- Polivy, J., & Herman, C. P. (2000). The false hope syndrome: Unfulfilled expectations of self-change. *Current Directions in Psychological Science*, 9, 128–131.
- Prince-Embury, S. (2013). Resiliency scales for children and adolescents: Theory, research, and clinical application. In S. Prince-Embury & D. H. Saklofske (Eds.), *Resilience in children, adolescents, and adults: Translating research into practice* (pp. 19–44). New York: Springer.
- Resnick, H. S., Guille, C., McCauley, J. L., & Kilpatrick, D. G. (2011). Rape and other sexual assault. In S. M. Southwick, B. T. Litz, D. Charney, & M. J. Friedman (Eds.), *Resilience and mental health: Challenges across the lifespan* (pp. 218–237). New York: Cambridge University Press.
- Riolfi, L., Savicki, V., & Cepani, A. (2002). Resilience in the face of catastrophe: Optimism, personality, and coping in the Kosovo crisis. *Journal of Applied Social Psychology*, 32(8), 1604–1627.
- Rutter, M. (1990). Psychosocial resilience and protective mechanisms. In J. Rolf, A. Masten, D. Cicchetti, K. Nuechterlein, & S. Weintraub (Eds.), *Risk and protective factors in the development of psychopathology* (pp. 181–214). New York: Cambridge University Press.
- Rutter, M. (2012). Resilience as a dynamic concept. *Development and Psychopathology*, 24(2), 335–344.
- Sanders, F. (2018). *Dutch Resiliency of under sea-level cities due to brave people* [conference presentation]. RRAU18, Groningen, the Netherlands. <https://research.tudelft.nl/en/publications/dutch-resiliency-of-under-sea-level-cities-due-to-brave-people>
- Schaefer, J. A., & Moos, R. H. (1992). Life crises and personal growth. In B. N. Carpenter (Ed.), *Personal coping: Theory, research, and application* (pp. 149–170). Praeger Publishers/Greenwood Publishing Group.
- Scotti, J. R., Beach, B. K., Northrop, L. M. E., Rode, C. A., & Forsyth, J. P. (1995). The psychological impact of accidental injury. In J. R. Freedy & S. E. Hobfoll (Eds.), *Traumatic Stress: From Theory to Practice* (pp. 181–212). Boston: Springer.
- Seligman, M. E. P. (1975). *Helplessness: On Depression, Development, and Death*. San Francisco: W. H. Freeman.
- Shaw, D., Scully, J., & Hart, T. (2014). The paradox of social resilience: How cognitive strategies and coping mechanisms attenuate and accentuate resilience. *Global Environmental Change*, 25, 194–203.
- Snyder, C. R., Rand, K. L., King, E. A., Feldman, D. B., & Woodward, J. T. (2002). “False” hope. *Journal of Clinical Psychology*, 58(9), 1003–1022.
- Tarter, R., Vanyukov, M., Giancola, P., Dawes, M., Blackson, T., Mezzich, A. D. A., & Clark, D. B. (1999). Etiology of early age onset substance use disorder: A maturational perspective. *Development and Psychopathology*, 11(4), 657–683.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: a social psychological perspective on mental health. *Psychological Bulletin*, 103(2), 193–210.
- Taylor, S. E., Lerner, J. S., Sherman, D. K., Sage, R. M., & McDowell, N. K. (2003). Are self-enhancing cognitions associated with healthy or unhealthy biological profiles? *Journal of Personality and Social Psychology*, 85, 605–615.
- Theron, L. C. (2012). Resilience research with South African youth: Caveats and ethical complexities. *South African Journal of Psychology*, 42(3), 333–345.
- Tomes, R. (1857). *The Americans in Japan, an abridgment of the government narrative of the U.S. expedition to Japan under Commodore Perry*. New York: D. Appleton.
- Torres, A., Southwick, S. M., & Mayes, L. C. (2011). Childhood resilience: adaptation, mastery. In S. M. Southwick, B. T. Litz, D. Charney, & M. J. Friedman (Eds.), *Resilience and mental health: Challenges across the lifespan* (pp. 307–320). Cambridge: Cambridge University Press.
- UNISDR. (2009). Drought Risk Reduction Framework. Practices: Contributing to the Implementation of the Hyogo Framework for Action. *United Nations Secretariat of the International Strategy for Disaster Reduction (UNISDR)*, Geneva, Switzerland.
- Ungar, M. (2004). *Nurturing hidden resilience in troubled youth*. Toronto, ON: University of Toronto Press.
- Ungar, M. (2012). Researching and theorizing resilience across cultures and contexts. *Preventive Medicine: An International Journal Devoted to Practice and Theory*, 55(5), 387–389.
- Ungar, M. (2015). Patterns of family resilience. *Journal of Marital and Family Therapy*, 42(1), 19–31.
- Ungar, M. (2019). *Change Your World: The Science of Resilience and the True Path to Success*. Sutherland House: Toronto, ON.

- Ungar, M. (2020). *Working with children and youth with complex needs: 20 skills to build resilience* (2nd Edition). New York: Routledge.
- Werner, E., & Smith, R. (1982). *Vulnerable but invincible: A study of resilient children*. New York: McGraw-Hill.