Article

Resilience, Trauma, Context, and Culture

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Abstract

This article reviews the relationship between factors associated with resilience, and aspects of the individual's social ecology (environment) that promote and protect against the negative impact of exposure to traumatic events. It is shown that the Environment $\times$ Individual interactions related to resilience can be understood using three principles: (1) Resilience is not as much an individual construct as it is a quality of the environment and its capacity to facilitate growth (nurture trumps nature); (2) resilience looks both the same and different within and between populations, with the mechanisms that predict positive growth sensitive to individual, contextual, and cultural variation (differential impact); and (3) the impact that any single factor has on resilience differs by the amount of risk exposure, with the mechanisms that protect against the impact of trauma showing contextual and cultural specificity for particular individuals (cultural variation). A definition of resilience is provided that highlights the need for environments to facilitate the navigations and negotiations of individuals for the resources they need to cope with adversity. The relative nature of resilience is discussed, emphasizing that resilience can manifest as either prosocial behaviors or pathological adaptation depending on the quality of the environment.

Keywords

resilience, environment, social ecology, prosociality, pathological adaptation, trauma, culture

Amid a growing awareness of the many types of potential trauma children are exposed to is an emerging understanding that resistance to the effects of trauma shows both homogeneity and heterogeneity across contexts and cultures (American Psychological Association Task Force on Resilience and Strengths in Black Children and Adolescents, 2008; Bonanno, Westphal, & Mancini, 2011; Boyden & Mann, 2005). We are understanding better the mechanisms by which children cope with parental substance abuse, exposure to violence (in their families and communities), natural disasters, migration, medical neglect, child pornography and prostitution, honor violence, Internet sexual exploitation, institutional abuse, and other contextually specific precursors to trauma. This resistance to the effects of exposure, also termed resilience, is less a reflection of the individual's capacity to overcome life challenges as it is the capacity of the child's informal and formal social networks to facilitate positive development under stress (Obrist, Pfeiffer, & Henley, 2010; Ungar, 2011c). This social ecological understanding of resilience implicates those who control the resources that facilitate psychological well-being in the proximal processes (e.g., making education accessible; promoting a sense of belonging in one's community; facilitating attachment to a caregiver; affirmation of self-worth) associated with positive development in contexts of adversity.

In this article, I will show how contextual and cultural factors largely explain how children and youth cope with adversity. I begin with a discussion of the mechanisms that make resilience more likely to occur, define resilience as an ecological construct, then discuss three principles of a decentered understanding of resilience as it relates to trauma and the research evidence that supports each principle.

Resilience-Related Processes Across Contexts and Cultures

The study of resilience has helped us to understand that resilience as a process is not the same as the suppression of symptoms associated with mental disorder that follow exposure to trauma. Resilience is a separate but interdependent set of processes associated with mental health that is orthogonal to the presence or absence of disorder (Keyes, 2002; Zautra, Hall, & Murray, 2010). These processes reflect the positive adaptations that individuals, families, and communities make regardless of the presence of disordered thoughts, feelings, and behaviors (Nakkula, Foster, Mannes, & Bolsrtom, 2010; Ungar, 2011a). In other words, there is evidence that aspects of positive psychological functioning like social bonding, a capacity for empathy, and a sense of coherence can co-occur

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with trauma-related symptoms typically associated with posttraumatic stress disorder (PTSD; DeRoon-Cassini, Mancini, Rusch, & Bonanno, 2010; Nuttman-Shwartz, Dekel, & Tuval-Mashiach, 2011; Peterson, Park, Pole, D'Adrea, & Seligman, 2008). It is the promotion of these positive aspects of adaptation that concern those who study resilience.

A simple illustration of how resilience may co-occur despite the presence of disorder resulting from trauma is found in a study of mothers who are survivors of child sexual abuse. Wright, Fopma-Loy, and Fischer (2005) showed that most were doing well and that coping strategies such as avoidance, social support, and problem solving were strongly related to resilience. Seventy-nine mothers who had experienced childhood sexual abuse were recruited through national survivors' newsletters and public announcements across the United States. The mail-in survey asked a range of questions including gathering enough data to rate the severity of past abuse and to identify coping strategies. Interestingly, most of the mothers were only shown to be resilient when the researchers focused their attention on positive aspects of the mothers' lives. Wright et al. show what they term ontogenic instability in how resilience is manifested. Individuals may show remarkable strengths in one area (parenting) but not in others (depression). Which women were found to be resilient had, therefore, much to do with the subjectivity of the criteria used to assess them. If the criteria for positive development is set too rigidly and across all domains of functioning (individual, interpersonal, and community), then only 16% of the women would be classified as resilient. This, despite the fact that over 80% of the mothers showed evidence of good coping in at least one domain of their lives. The identification of resilience is, therefore, partly an artifact of the researcher's bias. It is also the result of study design (cross-sectional vs. longitudinal), as other studies suggest that short-term avoidance strategies may fail to be protective longer term (Van Voorhees, et al., 2012).

By focusing on both flourishing and languishing as separate dimensions of mental health (Keyes, 2002), we are, however, better able to identify resilience when it is otherwise obscured by overt symptoms associated with dysfunction. Arguably, the study of resilience following trauma is focused most on the mechanisms that people employ to flourish, though greater resilience also buffers the impact of factors that put individuals at risk of future mental health problems that cause them to languish (Luthar, Cicchetti, & Becker, 2000; Wingo et al., 2010).

A Social–Ecological Definition of Resilience

Elsewhere, I proposed a definition of resilience that accounts for this complexity and the contextual and cultural factors related to positive development under stress (Ungar, 2008, 2011c). That work emphasizes four concepts: navigation, negotiation, resources (opportunity), and meaning. Rather than defining resilience as the individual's capacity to succeed under stress, I defined resilience as the capacity of *both* individuals and their environments to interact in ways that optimize

developmental processes. Specifically, research shows that in situations of adversity, resilience is observed when individuals engage in behaviors that help them to navigate their way to the resources they need to flourish (Ungar, 2011a). These processes occur, however, only when the individual's social ecology (formal and informal social networks) has the capacity to provide resources in ways that are culturally meaningful. The personal agency of individuals to navigate and negotiate for what they need is dependent upon the capacity and willingness of people's social ecologies to meet those needs (Bottrell, 2009; Easterbrooks, Chaudhuri, Bartlett, & Copeman, 2011). Political processes, funding, family structures, cultural norms, and even the serendipity of life circumstances make it more or less likely an individual who is disadvantaged by traumatic experiences will experience resilience (Leadbeater, Dodgen, & Solarz, 2005).

This ecological definition purposely decenters individuals to avoid blaming them for not flourishing when there are few opportunities to access resources. Though personal motivation to adapt is still an important factor in positive development after exposure to traumatic events, the social ecology is responsible for constraining or liberating people's choices with regard to coping strategies that result in prosocial behavior or pathological adaptation (Ng-Mak, Salzinger, Feldman, & Stueve, 2010; Ungar, 2004a). Therefore, a social ecological interpretation of resilience emphasizes cultural sensitivity: A resource is only useful if it is valued. Individual resilience occurs when there is an opportunity structure (an environment that facilitates access to resources) and a willingness by those who control resources to provide what individuals need in ways that are congruent with their culture. An overemphasis on personal agency and other aspects of what has come to be known as "resiliency" naively assumes that individuals survive only because of a positive attitude or other fiction (Masten, 1994; Seccombe, 2002; Ungar, 2011c).

Facilitative Environments and Individual Resilience

The nature of these processes that are both promotive of positive adaptation and protective against threats to well-being has been discussed in a large but disjointed body of work. While much of that work helps to inform a more ecologically sensitive understanding of resilience, it requires a careful reading to discern the central importance of a facilitative environment. To illustrate, Rutter (2006), in an effort to summarize common elements of these patterned adaptations, noted five principles that explain positive developmental outcomes under stress: "(1) resistance to hazards may derive from controlled exposure to risk (rather than its avoidance); (2) resistance may derive from traits or circumstances that are without major effects in the absence of the relevant environmental hazards; (3) resistance may derive from physiological and psychological coping processes rather than external risk or protective factors; (4) delayed recovery may derive from "turning point" experiences in adult life; and (5) resilience may be constrained by biological programming or damaging effects of stress/adversity

on neural structures" (p. 1). To Rutter, resilience is "an interactive concept that is concerned with the combination of serious risk experiences and a relatively positive psychological outcome despite those experiences" (p.2). Rutter is ambiguous, however, whether it is individual or environmental factors that are most responsible for dealing with the sequelae from exposure to traumatic events. The five principles he named implies what Lerner (2006) has described as a bidirectional, reciprocal process. I would like to propose four different aspects of resilience to help us understand the Individual × Environment interaction as it relates to resilience following trauma.

First, the problem with never naming which side of the Individual × Environment interactional process is most important to resilience is that a critically important question is left unanswered with regard to how the theory of resilience can inform intervention. Do we change individuals (a first-order change that helps them cope better following adversity) or environments (a second-order change that addresses the environment's shortcomings, increasing the odds that resilience will occur)? A search of the literature for examples of research that investigate both individual and environmental influences on resilience shows that *traumatic effects are more likely to be mitigated by second order change than first order adaptation* (DuMont, Widom, & Czaja, 2007; Landau, Mittal, & Wieling, 2008; Obrist et al., 2010). Though there is, as yet, no comprehensive review of the research that demonstrates this pattern, there is enough evidence already published to suggest that a greater emphasis on the social environment is merited when studying resilience among populations that are exposed to higher levels of adversity. Furthermore, different disciplines that are not explicitly focused on studying resilience, such as investigations of adverse childhood events (Anda et al., 2006) and positive psychology (Park, 2010), are also providing a theory base for a social ecological understanding of resilience (Ungar, 2011c).

Second, the impact of second-order change (a change in the individual's social ecology) depends on the burden the environment places on the person. For example, a powerful sense of cultural identification that is reinforced by a child's family and school may be highly functional as a way of promoting resilience for a child from a marginalized ethnoracial community but lack much influence at all for a child who is a member of the majority culture (American Psychological Association, Task Force on Resilience and Strength in Black Children and Adolescents, 2008; Shamai & Kimhi, 2006; Shin, Daly, & Vera, 2007). In other words, the relative impact any single quality of the environment has on developmental outcomes reflects the context in which it manifests. Any ecological asset (or, for that matter, individual asset) is only helpful if it is contextually relevant.

Third, even at the level of individual positive qualities, research shows that much of what we assume to be fixed traits like personality, temperament, genetics, and neurophysiology are malleable aspects of individual functioning that depend on environmental triggers to determine whether they act as promotive or protective factors (Greenberg, 2006; Gunnar &

Quevedo, 2007). Beckett and his colleagues' (2006) work, for example, with Romanian orphans showed that there is the potential to optimize functioning following prolonged exposure to abuse through micro- and mesosystemic interventions, proving that there is little about individuals that is so fixed that a facilitative environment cannot be a positive influence for change. This principle of resilience parallels what we know about the damaging long-term effects on neurophysiology that result from traumatic neglect or exposure to violence (Anda et al., 2006). Recent findings from longitudinal studies of adverse childhood events and later physical health challenges like cardiovascular disease among adults who were abused as children show that a bad environment triggers what might be labeled as individual flaws (i.e., poor lifestyle choices, unhealthy behaviors and their epigenetic consequences). Likewise, aspects of resilience are known to be triggered by positive aspects of the environment.

Fourth, turning points are moments in time when individuals encounter the serendipity of opportunity in otherwise impoverished environments. Laub and Sampson (2003), for example, showed that a number of critical experiences (military service, a committed relationship) help delinquent boys mature into responsible adults. Laub and Sampson's research, like other longitudinal studies, provides support to the notion that the environment acts as the locus for the stimulation of psychological growth and well-being (Schoon, 2006).

I will discuss each aspect of the environment x individual interaction (reversing the equation to emphasize the environment first) in more detail later, organizing that discussion under three principles of a social ecological interpretation of resilience. But first, I turn my attention to the link between traumatic events and the role of the environment as moderator.

Traumatic Events and the Role of Environment

When Wingo et al. (2010) studied how adults from poor urban environments coped with traumatic events, they found that though trauma was high, and resilience moderated the impact of trauma on symptoms related to depression. They concluded that resilience may be "amenable to external manipulation" (p. 411). This same focus on the external rather than the internal is observable in many other resilience-related studies. For example, a study of low-income African Americans in an urban setting showed that a community's social cohesion mediates the impact of exposure to violence and perceived neighborhood disorder on children (Gapen et al., 2011). While neighborhood disorder had a direct effect on PTSD symptoms, community cohesion could mediate that effect even when researchers controlled for exposure to traumatic events. Therefore, this relationship between experiences of trauma and resilience is difficult to assess unless attention is paid to community factors. Work in Israel has shown similar patterns. In communities where there was persistent exposure to rocket attacks along Israel's borders, there was a higher incidence of PTSD in communities that were less cohesive (Nuttman-Shwartz et al., 2011). Predictions of morbidity had as much to do with trust

in one's neighbors, informal social ties, social control, and a shared sense of purpose (a social construction shared through participation in a discourse of nationalism) as it did individual personality differences.

Some of the most useful research in support of an ecological understanding of resilience as it relates to trauma comes from studies that have not examined resilience. For example, emerging evidence that adverse childhood experiences like abuse affect future growth and development well into adulthood demonstrates a link between adverse events in the child's environment and long-term developmental challenges (Dong et al., 2004). If premature mortality and compromised brain functioning are outcomes of environmental stressors (Brown et al., 2009; Fellitti et al., 1998), then it stands to reason that a protective environment has the potential to promote positive growth following exposure to traumatic events. In a cleverly argued work by Gilligan (2011), U.S. homicide and suicide statistics since 1900 are used to show that the party affiliation of the president is strongly associated with whether rates of violence increase or decrease. If resilience is engagement in processes that protect vulnerable individuals from acting in ways that harm themselves and others, then it can be said that resilience is more likely in some political contexts than others (Peters, 2005; Ungar, 2011a). Gilligan, a psychiatrist, suggests that the shame that results from inequitable public policy increases social marginalization and causes individuals to use violence as a coping strategy. Though presidents do not make people more violent, the social structures that people experience as a result of a Presidency do.

Similar arguments can be made at the level of schools and communities: The social organization of the group accounts for much of the variance in the behavior of individuals (Schoon, 2006; Sroufe, Egeland, Carlson, & Collins, 2005). More equitable communities, and those with higher social cohesion, can compensate for a lack of material wealth and actually outperform middle-class communities on mental health indicators (DuMont et al., 2007; Elliott et al., 2006). Trauma, therefore, does not produce predictable sequelae unless we also consider the contextual factors that shape present and future adaptations to stress (Cruz-Santiago & Ramirez-Garcia, 2011; Gapen et al., 2011). The more the environments make available and accessible the resources that promote well-being, the more likely the individuals are to engage in processes associated with positive development such as forming secure attachments, experiencing self-esteem, engaging in expressions of personal agency, and meaningful employment. These processes range in scope from microsystemic aspects of personal functioning within families to wider macrosystemic interactions between political and social systems that affect individual behavior like employability. Recovery from trauma is not an individual capacity alone but a function of the individual's social ecology to facilitate recovery and growth.

Three Principles to Explain the Influence of Environment on Resilience

While there has been much theorizing with regard to how individual factors like personal mastery, temperament, and attachments influence posttraumatic reactions, there are fewer explanatory models for the influence of the environment on resilience among populations exposed to stress. Below, I identify three patterns noticeable in both my own research and the extant literature.

Principle 1: Nurture Trumps Nature When Coping With Trauma

The field of epigenetics is showing remarkable links between trauma exposure and experiences associated with resilience that influence gene expression. Studies of primates provide evidence that early experiences of abuse or neglect such as being raised in the absence of the biological mother do not necessarily cause rhesus monkeys to experience abnormal biobehavioral development if their social environment is benign (Suomi, 2005). Deprived monkeys (traumatized) may show differences in brain structure and function, and even pass these differences along to their offspring through nongenetic mechanisms, but it remains the quality of the environment after the trauma of separation that determines how well individual animals cope. This pattern, mirrored in human studies, suggests that more of the variance in coping across a population can be predicted by assessment of the environment than the individual. Though there is an interaction between both, the equation is not balanced equally. A facilitative environment can change developmental pathways regardless of individual differences. Personal motivation, sense of agency, temperament, personality variables, and genetic predispositions toward particular behaviors (anxiety, impulsivity, etc.) are triggered or suppressed by the environment. A benign, or in the case of children from chronically disadvantaged environments, optimal environment will cause the majority of children to flourish (Beckett et al., 2006; Masten, 2001; Sroufe et al., 2005). In this regard, nurture trumps nature when it comes to predicting resilience.

At the level of neuroplasticity, the same argument can be made. Ironically, Perry and his colleagues (1995), critiquing the study of resilience, argued that brain functioning and behavioral outcomes could not be explained as the result of resilience. They showed that while children are "malleable," they are not able to independently overcome adversity. Surrender or fight responses are adaptations by children to the contexts in which they live. Perry et al. challenge the persistence of the myth of the resilient child that has us overlook the crippling effect of trauma and the loss of children's capacity to realize their potential. Children adapt to their environments and grow up psychologically healthy if they are provided with the resources necessary to modify neurological functioning. While studies of exceptionally gifted individuals raise the possibility that a small number of children survive catastrophic events relatively unscathed (Cyrulnik, 2008), this pattern of coping is often the result of cultural factors (i.e., a belief system that defines suffering as necessary), meta-cognitions (i.e., attributions of causality to others), or exceptional talent. These exceptions, however, are not typical of most children's experiences. Instead, the processes that predict resilience which Masten

(2001) described poetically as "everyday magic" are most often evidence of proximal processes in which the environment optimizes the conditions for children's survival. As Werner and Smith's (1982) longitudinal work with a birth cohort in Kuaii showed, many children from impoverished backgrounds survive best when there are adults who provide them access to belief systems, when their experiences at home and school reinforce attributions of internality, and when there are opportunities to demonstrate talents. It is the active nurturance by the environment that potentiates recovery from trauma or helps individuals resist the psychological burden caused by social marginalization. The child's individual qualities are rarely the best explanatory variable.

To illustrate, mixed-methods research with an international cohort of children exposed to stressful environments in 11 countries showed that seven factors associated with positive development could account for the patterns of positive adaptation among adolescents (Ungar & Liebenberg, 2011; Ungar et al., 2007). These seven protective factors included access to supportive relationships, opportunities to experience a powerful self-definition, experiences of efficacy, experiences of social justice, access to material resources like food, education and housing, a sense of cohesion within one's family, community or school, and cultural adherence. Though not all the youth in the study experienced each factor as highly influential (e.g., youth who were cultural majorities tended to talk less about cultural adherence), results showed that the seven factors work in tension with one another. At the level of each case study, all seven factors are potentially responsible for shaping the Environment × Individual interaction depending on contextually specific constraints and advantages related to development.

Furthermore, the nature of the nurturing that seeds resilience is sensitive to what Bronfenbrenner (1979) described as chronosystemic factors. Both historical and developmental timing influences the processes associated with resilience that result from the Environment × Individual interaction. Masten and Powell (2003) remind us, "Identifying resilience from explicit or implicit diagnostic criteria is not assumed to describe people in totality or to define their lives at all times. Hence, one would expect individuals who meet the criteria for resilience to differ in many other ways, and one would not expect a resilient person, however defined at one point in time, to be doing well every minute of the day, under all imaginable circumstances, or in perpetuity" (p. 4). Longitudinal studies of positive adaptation after exposure to trauma describe a steady progression toward improved functioning, with periodic declines in performance (Werner & Smith, 1982). These periods of suboptimal functioning tend to be the result of both horizontal (normative developmental) stressors like the transition to elementary school and vertical stressors that are atypically stressful life events such as a sexual assault or forced migration.

Chronosystemic factors also include changes in the social and historical context in which a child develops (Schoon, 2006). Cohort studies show that the capacity of a population to overcome adversity is often related to the capacity and willingness of their societies to provide resources. Vulnerability may be increased during periods of high unemployment or when governments move toward institutional practices that decrease access to resources like day care, social welfare, education, and psychological services for populations at significant developmental risk (Willms, 2002). Experiences of trauma and the dysfunction that follows is therefore a reflection of both the individual's experience of horizontal (chronic, over the life course) and vertical (acute, time-limited) stressors as well as the sociohistorical context in which the child's navigations and negotiations for resources occurs.

Principle 2: Differential Impact of Environment on Resilience

While the quality of the environment is more important to recovery and growth following trauma than individual factors, aspects of both the environment and the individual that predict positive development demonstrate a differential impact on functional outcomes. Depending on individual characteristics, the availability and accessibility of resources, the meaning attributed to specific patterns of coping, and the temporal dimensions of the Environment × Individual interaction, some factors will influence vulnerability and resilience more than others (Flouri, Tzavidis, & Kallis, 2010). Unfortunately, the principle of differential impact makes standardized assessment of resilience a complex process with researchers obligated to assess a child's context and coping strategies to see if there is a fit that makes sense to the child, the child's family, and the wider community in which the child lives. For example, it is now accepted that some percentage of a population that experiences traumatic events will demonstrate posttraumatic growth afterward (Tedeschi & Calhoun, 1996). This steeling effect was observed in work by Peterson, Park, Pole, D'Adrea, and Seligman (2008) who found evidence that character strengths may improve among those who have suffered trauma (e.g., witnessing someone's death or surviving a life-threatening illness). Though methodologically weak (a voluntary website was used to sample 1,739 respondents), the study highlighted the specificity of which processes in which environments for which individuals produce positive developmental outcomes. While we would never purposefully subject children to trauma to create character strength, there is an argument to be made for preventing the overprotection of children (Sandseter & Kennair, 2010) and promoting engagement in what Vygotsky (1978) characterized as "zones of proximal development."

The principle of differential impact helps explain how an adaptive response may only be evident when under stress and invisible or nonfunctioning when no stress is present. For example, individual resistance skills that make it possible for children to avoid the pull toward delinquency are most important to children who are poorly monitored by their parents and living in contexts where delinquency is a convenient choice (Smith, Lizotte, Thornberry & Krohn, 1995; Ungar, 2004b). That same skill is either unnecessary or untested in contexts where there is a parent who closely monitors the child or in well-resourced communities where there are plenty of diversions. Likewise,

studies of urban mothers from disadvantaged communities who use very authoritarian styles of parenting compensate for the risks posed to their children living in a disadvantaged community (Burton, 2007). Similarly, a study of the cost-effectiveness of providing financial support for recreational activities and mentoring of children on social assistance demonstrated significant reductions in the use of mental health and justice services that made the initiative cost neutral (Browne et al., 2001).

All these examples show a simple pattern for children who live in environments where there is significant risk to their psychosocial development: Specific aspects of their social ecology will account for very large changes in the children's ability to cope. While parental monitoring and after school activities are important to the healthy development of middle-class children too, the likelihood of these promotive factors exerting a significant impact on life trajectory is much smaller when resources are plentiful. For children from privileged environments, less monitoring and fewer scheduled activities will not necessarily cause a cascade of negative life events associated with living in a dangerous neighborhood. The advantage of a more facilitative environment is felt more by those individuals who have the fewest resources. Unfortunately, these patterns also suggest that universal programs may be less than cost-effective when the goal is to develop the capacity of populations to cope under stress. More focused interventions that match the needs of vulnerable groups to the resources that are provided may be a better investment (Nix, Pinderhughes, Bierman, & Maples, 2005).

Researchers like Wyman (2003) have observed a similar pattern with regard to processes that promote children's competence (and resilience). While ignoring culture, Wyman sought to understand how contexts influence positive development, in particular how the availability of mentors in communities, the tone and sense of cohesion in families, and qualities of individuals like temperament inform the protective strategies children employ to grow up well in harsh environments. Wyman notes, "The implication for research on risk and resilience is that studies should investigate differences in the *protectiveness* of social resources and competencies based on how those factors serve children in specific contexts to reduce dysfunctional processes and enhance children's coping and mastery" (p. 294–295). This specificity is needed if we are to understand how to optimize the fit between the qualities of children and the protective processes they engage in. It is also necessary if we are to understand the patterns in how children express competence across developmental systems (cognitive, relational, emotional regulation, etc.). Wyman hypothesized that the potential adaptive fit between a child's characteristics and his or her environment would be narrower in more adverse environments and, therefore, that "different definitions of children's competence may be required in highly adverse settings" (p. 296). For example, an overly sensitive child will, in general, perform poorly in an environment where there are threats to his or her well-being associated with violence or neglect, but will often display higher levels of creativity, expressiveness, and empathy for others in environments that are predictable and safe (Obradović, Bush, Stamperdahl, Adler, & Boyce, 2010).

Studies like that by Seidman and Pedersen (2003) further illustrate this relativism in processes related to resilience. They examined senior elementary and junior high school students in New York City over a 5-year period and found that a youth who is detached emotionally and less involved with his or her parents is better adapted to coping with dysfunctional, hassling, or enmeshing family patterns in contexts of economic disadvantage. Their study adds to our understanding of child development greater appreciation for the homogeneity of groups of youth who face significant risk, rather than presupposing that they share in the same protective processes that would predict functional outcomes in better-resourced populations. As all these examples illustrate, both qualitative and quantitative research illustrate patterns to the differential impact of protective mechanisms when we account for the amount of trauma which children have been exposed to.

Principle 3: Cultural Variation to What Is Meaningful

The specific quality of protective processes also reflects cultural variations. By culture, I am referring to a set of values, beliefs, and everyday practices that are transmitted between individuals and reinforced through social discourse. Embedded in culture are expectations regarding appropriate ways to cope with adversity that influence Environment × Individual interactions. One can find the best evidence for this cultural variation when studies are qualitative, mixed methods, cross-cultural, or participatory in their design. These variations tend to be most invisible when we make assumptions of homogeneity based on biased experimentation with populations that do not experience the same adversity as those upon which the theory of resilience is imposed. For example, studies of university psychology students, an all too common research population in both western and nonwestern contexts, have particularly poor generalizability if we are seeking to understand the heterogeneity found among ethnoracial minorities, geographically isolated populations, and those individuals who experience the compounding effects of both exposure to trauma and economic or social marginalization. Few of these individuals are found in university classrooms and yet a survey of the literature on resilience would show a surprising lack of diversity: Very few studies exist of people with disabilities, aboriginal children, rural populations, children in nonwestern democracies, or adolescents who do not attend school (and were therefore not in class when sampling was carried out). These exclusions are an artifact of research design and the exclusionary practices that silence vulnerable populations (Smith, 1999).

This problem extends to the design of resilience measures as well. A review of 15 resilience instruments by Windle, Bennet, and Noye (2011) showed that only one (Ungar & Liebenberg, 2011) was developed through a process that relied on indigenous markers of positive development. Almost all were theory-driven, which means the variables chosen reflected already published reports on coping, with almost all the variables

identified by those who form the cultural majorities in western nations. To contrast, the Child and Youth Resilience Measure includes questions related to themes like social justice (e.g., "To what extent are you treated fairly in your community?"), a factor that is particularly important to marginalized populations. A more unbiased and culturally relevant assessment of resilience would import into measures of children of Anglo-European ancestry questions about their capacity to resist cultural hegemony and experience their rights. While the question may not be relevant to ethnoracial majorities with social and economic privilege, the question of cultural relevance seldom prevents western investigators from posing highly individualizing questions in contexts where children are raised in more collectivist traditions (Dawes, Bray, & van der Merwe, 2007). In other words, we seldom import the benchmarks of healthy development from those with a minority voice in the research literature even when they represent numerical majorities internationally.

Despite these numerous challenges, there is a growing body of literature that identifies the nuanced differences in protective processes across cultures (and the contexts where they exist; Marsella, 2010). Harms, Kizza, Sebunnya, and Jack (2009), for example, found that among orphaned Ugandan youth, mental and physical health were understood as equally important components of well-being. Atypically, healthy coping meant both physically looking after one's self and the demonstration of morality, both reasonable adaptations in a postconflict society where many children were kidnapped and abused as child soldiers.

When examining these differences, however, we might heed Achenbach's (2008) advice that there can be a tendency to expect other cultures to be both internally homogeneous and externally heterogeneous. In fact, contagion effects related to acculturation can make individuals with diverse backgrounds seem more similar than different. Likewise, naïve assumptions of sameness (all White children do not share the same culture, values, or beliefs) can make researchers blind to important within population differences (Van de Vijver & Leung, 1997). For example, Folkman and Greer (2000) note in their review of the literature on coping that there is a need for greater sensitivity to unconventional forms of coping. Elsewhere, Folkman and Moskowitz (2004) suggest wider use of narrative to explore localized patterns of adjustment such as those among HIV-positive men who they found prepare themselves mentally for the future by venting emotion through crying. Such behaviors, it is noted, do not typically appear on assessments of positive adaptations under stress. A similar argument can be made with regard to ethnoracial variation: that the behavioral indicators associated with resilience are not always those that are most relevant to the community being studied, but instead reflect the bias of outsiders and their understanding of the impact of trauma on resilience (Dawes & Donald, 2000).

How, then, can a group both resemble the dominant culture and still show unique patterns of coping? Research that has investigated culturally specific understandings of resilience-related phenomena has shown a tendency to overlook the contagion effect of the dominant culture on subpopulations that are embedded therein (Dana, 2008). How much ethnoracial minorities are a part of the dominant culture is an important consideration in assessing the influence of cultural norms and practices (Berry, Phinney, Sam, & Vedder, 2006). While we tend to focus on differences between cultural groups, we seldom know if ever how closely each ethnoracial population is influenced by dominant culture expectations and practices. Investigating this problem, Feldman and Masalha's (2007) conducted a study of parenting practices and children's developmental outcomes among Israeli and Arab families. They found that social support played a larger role in the lives of Arab parents when there was more traditional extended family living arrangements and lower father involvement in parenting tasks. In contrast, Israeli adults raising children showed more attunement to their children but experienced more problems resolving multiple roles of family and work life. Despite these differences, the overall picture was of similarities across both groups: "In both societies, maternal depression was related to infant observed and reported difficult temperament, infant negative emotionality correlated with lower parental sensitivity, marital satisfaction was associated with higher social support, social support was related to higher sensitivity, and maternal depression correlated with lower marital satisfaction" (p. 13). The salience of different cultural patterns, therefore, affects parenting practices and the success and well-being of the parents, as they fulfill their role as nurturers. The same risks and protective processes are relevant to each group, but culture shapes the cognitions and behaviors associated with resilience. The tension is between common factors all populations are assumed to experience and the unique patterns by which protective processes manifest themselves.

By introducing the variable of culture into our understanding of coping following trauma, we challenge ontological assumptions of what is functionally adaptive behavior. The literature on resilience as it relates to trauma represents one dominant ontological position: that of western cultural majorities with a bias toward individualistic interpretations of coping. Even the notion of "individual coping" inheres cultural bias and is incongruent with the more relational worldviews of communities like Black South Africans (Mampane & Bouwer, 2006) and aboriginal peoples in North America (Blackstock & Trocmé, 2005) where the survival of the kinship network is the focus rather than the survival of individuals alone.

These patterns of resilience reflect either hidden (unnamed) processes indigenous to a population, or discursively dissonant strategies that challenge cultural elites to redefine maladaptive coping as adaptive in resource poor environments (Ungar, 2004b). We can observe the first pattern among HIV-positive mothers in South Africa who push their children away physically and emotionally to prevent them from mourning the mother's death. The second pattern, discursive dissonance as a protective process, occurs when groups of people who are marginalized convince those in the majority that what appear to be maladaptive coping strategies are in fact effective when socially acceptable paths to

resilience are blocked. In support of this second hidden process, it has been shown that gang involvement among cultural minority youth (e.g., Mexican Americans) may be an adaptive strategy to avoid the threat of violence from cultural majority (non-Hispanic White) youth (Solis, 2003) who might otherwise assault minority youth who do not join gangs. This maladaptive strategy is effective, albeit controversial. Only when researchers engage with the youth themselves and empower their narratives of their experiences as immigrants is the adaptive quality of their behavior intelligible. In this regard, we understand that resilience can look like pathological adaptation (Ng-Mak et al., 2010).

These two ways that protective processes show hidden cultural differences are evident in a number of studies. In one, of children who survived the 2004 Tsunami in Aceh, Indonesia, Hestyanti (2006) could distinguish children who did not show signs of PTSD based on behavioral patterns like doing daily chores, playing with friends, involvement in religious activities, relationships with guardians and peers, and participation in school. Analysis of interview data showed that children explained their successful adaptation as the result of an internal motivation to recover, having a good heart, openness to listening to other people, religious bonds, self-responsible, a sense of humor, and an easy going personality. Though the protective quality of these behaviors and personal traits are not unique to Aceh youth, it is the specificity of these mechanisms in that particular context and their contribution to survival that makes their identification important. Herein lies the tension between heterogeneity and homogeneity between and within cultures. Such examples provide support for the definition of resilience proposed earlier, that the characteristics of environments that are most facilitative of resilience reflect the individual, family, and community's capacity to navigate to resources, the availability and accessibility of resources, and the meaningfulness of the resources provided.

In this regard, cultural differences in processes related to resilience are also evident in how adults prepare young people to cope with trauma in environments that expose them to chronic stress. An interesting example of culturally specific protection during child rearing comes from an ethnography by Golden and Mayseless (2008) of an Israeli kindergarten. Teachers created an environment inherently unpredictable, contrary to what we might expect in other contexts that do not suffer from the constant threat of violence related to war. Teachers created a less predictable environment by holding ad hoc conversations about danger and harm, rather than providing any structured instruction in self-protection. The children were told to look after themselves and not get hurt, but not shown how to do either. Teachers also emphasized worse case scenarios that made the world seem chaotic and dangerous, with little instruction for the children in how to avoid dangers like falling into water or getting burned by matches. Teachers were observed telling the children that if matches are lit, fire and death are the result, and if you go outside to fetch water, you drown. Golden and Mayseless explain, "In lieu of organizing a physical and social environment in which unpredictability was minimized, by implication it was the children themselves who were encouraged to take responsibility for taking adequate care" (p. 165). The authors speculate that this creates among children personal resources that will be useful later in life. In the randomness of such an environment, where even attention from caregivers was provided inconsistently, children coped using strategies that ranged from emotional withdrawal to actively pushing other children forward to avoid personal exposure to an uncomfortable situation: "In this scheme of things, the children were to learn to nurture those personal resources and social practices by means of which they were able to not only to avoid hazards, but also to turn the very unpredictability of the social order to their advantage" (p. 171).

These contextual adaptations associated with better functioning in environments that are stressful also have temporal dimensions. For example, Zhang and Fuligni (2006) identify changes in the behaviors of young males and females over time in urban environments in China where there is structural and social transformation. Processes of globalization associated with change to a market economy, internal migration, and greater exposure to western values had begun to transform the way youth related to parents and other authority figures. Boys were much more argumentative and independence seeking, while urban girls were slightly less so. Both groups showed a break with more traditional values of filial piety and obedience to authority that are still present among rural Chinese youth. It has been suggested that these shifts in attitudes and behaviors are adaptive in China's rapidly changing social and economic environment (Chen, DeSouza, Chen, & Wang, 2006), even though they have also caused intergenerational conflict and have worried the Chinese government who will inherit the economic burden of neglected elderly parents.

Conclusion and Future Directions

There is enough evidence to assert that processes associated with resilience protect against the traumatic effects associated with acute and chronic stressors, but the mechanisms are complex and contextually and culturally dependent. A criticism of some of the literature reviewed in this article, however, could be that much is based on qualitative studies and that there is little to support arguments for the generalizability of findings across populations. This problem is likely to persist as we document emic perspectives of positive development under stress and resist the hegemony of western theories of biopsychosocial development. Just as Erikson's (1963) eight stages of man has been refuted by feminist scholars who have shown development to be a move toward connections rather than independence (Miller, 1991), so too is an emerging body of research on resilience suggesting that (1) resilience is not as much an individual construct as it is a quality of the environment and its capacity to facilitate growth (nurture trumps nature); (2) resilience looks both the same and different within and between populations, with the mechanisms that predict positive growth sensitive to individual, contextual, and cultural variation

(differential impact); and (3) the impact that any single factor has on resilience differs by the amount of risk exposure, with the mechanisms that protect against the impact of trauma showing contextual and cultural specificity for particular individuals (cultural variation). Given these three principles, we can, as Luthar and Brown (2007) suggest, move beyond the study of biology and brain development that are still, for most researchers, perceived as the foundations of resilience. Biobehavioral, transdisciplinary, and mixed-methods research will help shift our focus to the yet unnamed protective processes to be found among populations poorly represented in a still largely hegemonic literature.

Because of these aspects of resilience, it is unlikely we will ever identify a single measure of resilience that is appropriate across all contexts and at all levels of exposure to trauma. Broader discussion of what resilience looks like in different cultures and contexts is showing many different ways that people cope with traumatic events, many of which are not yet well reflected in the literature (see, e.g., Liborio & Ungar, 2010; Ungar, 2012). Rutter (2006) suggests that a quest for a few universal protective processes is "a fallacious approach" (p. 4) to investigations of resilience. The variability of individuals in their responses and over time and across contexts makes it unlikely the same process is operating consistently, or the same outcomes will hold across time and place. Just as with studies of gene and environment interaction, the most significant findings relate to the interaction variable rather than either side of the equation. In the case of resilience, when viewed through a lens of context or culture, the interaction variable is also extremely important, though more of the variance in models is likely to be accounted for by the environment than individual differences when studies include measurement of both. This issue of measurement is complicated further if we compare clinical, field, and community studies of resilience where the nature of contact with informal and formal social networks and supports is different in each setting. Which factors we study will influence which aspect of the social ecology is perceived as most protective.

By way of analogy, Rutter uses the example of an individual who is a carrier of the sickle-cell which is not in itself a good thing except when exposed to malaria, in which case it is protective. In more benign environments, those that pose no threat for malaria, the sickle-cell has no particular benefit. In this sense, the protective function of a characteristic can be evident only when the environment demands it. Changing environments changes the very nature of protective processes, making them more or less important to positive development. This does not rule out, of course, that resistance to stress can be the result of internal psychological and physiological coping processes rather than external risk or protective factors. The exception, however, does not make the rule. Far more individuals will adapt positively after traumatic events when we make environments benign than if we try and change individuals.

A social ecological understanding of resilience has clinical implications as well (Ungar, 2011b). For individuals who are coping with highly adverse family and community contexts, individually focused interventions are less likely to foster well-being than interventions that first mitigate exposure to risk factors like violence, poverty, and social marginalization resulting from immigration, homophobia, and racism. More research is needed to identify how evidence-based treatments vary in their effectiveness when risk exposure changes. In practice, the research on resilience suggests that conversations about social marginalization and the positive outcomes of maladaptive coping strategies are necessary when risk exposure continues to be high and change to socially acceptable behavior actually puts the individual at risk. It also means that clinicians need to be willing to engage with individuals in ways that empower them to share their own perspectives of their hidden patterns of resilience (Ungar, 2011b). Though these strategies may not be adaptive longer term, exploring how people cope can inform clinical interventions by focusing attention not just on what individuals need to change, but also on aspects of the social ecology that have to change for new coping patterns to be adopted.

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Author Biography

Michael Ungar, PhD, is both a Social Worker and Marriage and Family Therapist with experience working directly with youth and families in child welfare, mental health, education, and corrections settings. He is now a Killam Professor of Social Work at Dalhousie University. He has conducted workshops internationally on resilience-related themes relevant to the treatment and study of at-risk youth and families and has published over 100 peer-reviewed articles and book chapters on the topic. He is also the author of 11 books including a novel titled *The Social Worker*. Among his professional and trade nonfiction books are *The Social Ecology of Resilience: A Handbook of Theory and Practice* (Springer, 2012); *Too Safe for Their Own Good: How Risk and Responsibility Help Teens Thrive* (McClelland & Stewart, 2007); *Counseling in Challenging Contexts: Working with Individuals and Families Across Clinical and Community Settings* (Brooks/Cole, 2011)*; and *Strengths-based Counseling with At-risk Youth* (Corwin/Sage, 2006). Currently, as the Director of the Resilience Research Centre, he leads a $5,000,000 program of research involving researchers from more than a dozen countries on six continents. In addition to his research and teaching, he maintains a family therapy practice in association with Phoenix Youth Programs, a prevention program for street youth and their families. He is also a board member of the American Family Therapy Academy, Cochair of the Nova Scotia Provincial Mental Health Strategy, sat on the Board of Examiners for the Nova Scotia Association of Social Workers from 2002 to 2010, and is on editorial boards of four journals, including *Family Process* and the *British Journal of Social Work*. His blog can be read on the website of *Psychology Today*.