

CHAPTER 1

INTRODUCTION

Probably as long as humans have told stories to one another, there have been tales of individuals who overcame difficulties to succeed in life. Traditional folktales and fairytales portray themes of struggle and transformation, persistence and heroic deeds in the face of adversity, and young people of humble origins who rise in life through their wits and actions, sometimes assisted by a guide or magical figure. These traditional stories have proven to be “irresistible” over the centuries to people around the world (Zipes, 2012). In the 21st century, when it is possible to share stories in many different ways—through social media, in books or newspapers, in films or television shows, through e-mails or blogs, on various digital communication devices—people remain intrigued with stories of youth who face grave danger or grow up in poverty and nonetheless turn out well. Humans are fascinated by such accounts, and I believe that these stories capture a fundamental truth about human resilience that is the theme of this book: *Resilience arises from ordinary resources and processes.*

Interest in resilience also seems to rise in troubled times. If so, then we should not be surprised by the current levels of attention to resilience readily observable on the Internet, and in books, conferences, and articles. The beginning of the 21st century has witnessed an extraordinary sequence of global calamities stemming from natural disasters, political conflicts and war, virus outbreaks, economic crises, and industrial accidents, with fears of

climate change looming. The lives of children and youth around the world today are threatened in staggering numbers by war, terrorism, natural disasters, poverty, starvation, disease, neglect, dislocation, and many other hazards to life and development.

It is not possible to prevent all the known threats to child development. Thus, it is imperative to understand how to protect children from the worst ravages of adversity and how to promote positive development when rearing conditions are not optimal. Research on resilience in child development can illuminate what makes a difference, for whom, and when, providing guidance for efforts to improve the chances for healthy development among children at risk for problems related to negative life circumstances. This premise motivated the scientists who initiated the systematic study of resilience phenomena in children in the 1960s and 1970s.

The scientists who pioneered the study of resilience in human development were profoundly influenced by World War II. The war brought global attention to the plight of children exposed to bombs, death, starvation, genocide, displacement, and other adversities on a massive scale. The war motivated multiple waves of research on the effects of adversity on children and adults, including long-term follow-ups of those who experienced concentration camps, radiation, starvation, loss of parents, and other challenges. A number of the key individuals who would subsequently initiate influential studies of resilience in children were directly impacted by the war. Norman Garnezy, for example, participated in the war as a young American soldier and he was present at the Battle of the Bulge. Emmy Werner was one of the many children and adolescents who experienced the bombing of Europe firsthand, and efforts after the war by UNICEF, founded in the wake of World War II, and other organizations to prevent millions of children from starving in the aftermath of the devastation. Michael Rutter was one of the “seavacuees,” British children who were sent across the ocean to safety in North America to escape the bombing. Eventually, each of these individuals became a leading scientist studying resilience in children at risk.

After World War II, there was a rapid expansion of research in psychology, psychiatry, and related fields seeking to advance

knowledge about the causes of mental health and behavioral problems, with the goal of better treatments or prevention. Scientists aiming to understand causes of psychological and behavior problems followed a public health strategy. They began by identifying *risk factors* associated with the negative outcomes of interest. The public health model addressed three questions (Gruenberg, 1981, p. 8):

1. Who gets sick, and who doesn't get sick?
2. Why?
3. What can we do to make the sickness less common?

It was too expensive in resources to follow the development of a general population of children over time to observe who may or may not develop problems, particularly in the case of uncommon disorders or problems. Risk factors were a way to choose groups of children with higher than usual probabilities of developing a particular problem of concern. Many risk factors or predictors of mental and behavioral problems were identified and these fell into three major categories: genetic risk or being related to people with serious mental disorders (e.g., child of a parent with schizophrenia), exposure to stressful life experiences (e.g., war, maltreatment, divorce), and status indicators of precarious life circumstances (e.g., premature birth, low socioeconomic status [SES], low maternal education, unwed teenage parents). By studying the development of children in high-risk groups, risk researchers hoped to learn in an efficient way about the processes that lead to disorders, with the ultimate goal of informing prevention and treatment. Garnezy, Rutter, and Werner were among these risk researchers.

When investigators began to study high-risk children over time, it became clear that there was tremendous variability in the course of their unfolding lives (Masten, 1989; Sameroff & Chandler, 1975). A small but influential group of risk researchers was struck by the observable fact that numerous children in the risk groups were thriving in the face of formidable odds. They began to ask a somewhat different set of questions:

1. Who stays well and recovers well?
2. How?
3. What can we do to promote and protect health and positive development?

Leading scholars in psychology and psychiatry, including E. James Anthony, Emory Cowen, Norman Garmezy, Lois Murphy, Michael Rutter, George Vaillant, and Emmy Werner, began to talk and write about the importance of these questions and their observations on positive development among high-risk children and youth. These investigators would propagate the first wave of resilience research.

FOUR WAVES OF RESILIENCE SCIENCE

Over the past half-century, there have been four major waves of resilience science (Masten, 2007; Wright, Masten, & Narayan, 2013). The first wave was descriptive, as scientists began systematically to define, measure, and describe the phenomenon of good function or outcomes in the context of risk or adversity and attempt to identify the predictors of resilience. Wave 1 is characterized by these types of questions: What is resilience? How do we measure it? What makes a difference? With clues from Wave 1 work, investigators in the second wave shifted their attention to the *processes* of resilience and to *how* questions: What are the processes that lead to resilience? How do protective, promotive, or preventive influences work? How is positive development promoted in the context of risk? Wave 2 set the stage for the third wave, focused on promoting resilience through interventions, while simultaneously testing theories from the first two waves about what matters for resilience and how: Can resilience be promoted? Are theories about the processes leading to resilience on target? Advances in technology and knowledge—in genetics, statistics, neuroscience, and neuroimaging—gave rise to the fourth wave of resilience science, which is characterized by dynamic,

systems-oriented approaches, with a focus on interactions of genes with experience, persons with contexts, connecting levels of analysis, and multidisciplinary integration. Fourth-wave questions are just emerging: How do genetic differences play a role in resilience? Do individuals have differential sensitivity to traumatic experiences? Are the same individuals also sensitive to positive interventions? How is brain development protected from high levels of stress and stress hormones? Is it possible to influence important human adaptive systems to foster resilience? How do communities and societies nurture resilience? The evidence, controversies, and lessons learned from each of these waves to date will be examined further throughout this volume.

The great insight of the early pioneers in resilience science was in recognizing the potential significance of understanding positive outcomes among high-risk children and youth for practice and policy as well as for scientific theory. They inspired their students and other investigators to study and understand the positive as well as the negative influences in children's lives, with the ultimate goal of tilting the odds toward positive development. Now, after half a century of research, it is time to take stock of what has been learned from research on resilience in young people: the evidence and the surprises, the conclusions and the controversies, the gaps and the future goals, and the implications to date for practice and policy.

Ordinary Magic

The biggest surprise that emerged from the study of children who overcome adversity to become successful youth and adults in society was the *ordinariness* of the phenomenon (Masten, 2001). Captivating stories of resilient individuals may have created misleading perceptions that resilience is rare and results from extraordinary talents or resources (symbolized by magic powers and helpers in myths and fairytales). Evidence strongly suggests, on the contrary, that resilience is common and typically arises from the operation of basic protections. There are exceptional cases, where children overcome heavy odds because of extraordinary talents,

luck, or resources, but most of the time, the children who make it have ordinary human resources and protective factors in their lives. Resilience emerges from commonplace adaptive systems for human development, such as a healthy human brain in good working order; close relationships with competent and caring adults; committed families; effective schools and communities; opportunities to succeed; and beliefs in the self, nurtured by positive interactions with the world. Studies of resilience repeatedly point to the same factors associated with positive adaptation or development in the context of risk, representing clues to what really matters for resilience. These findings highlight the power of human and social capital for development and suggest priorities for those who aim to shift the odds in favor of good outcomes among children threatened by a variety of negative life circumstances.

The study of resilience has had transformative effects on the guiding frameworks for interventions and policies designed to help children at risk for academic and behavioral problems. Deficit models are being replaced by more balanced models that include assets, strengths, and protective factors along with risks, problems, and vulnerabilities. It turns out that many of the most strategic ways to prevent and ameliorate problems in development may be to promote competence and success, which is also far more appealing as an objective to parents and the public than programs focused on reducing problems (Masten, 2011; Masten & Coatsworth, 1998).

Resilience research is also quintessentially developmental in nature. The science of resilience grew out of research on children at risk for mental disorders, and longitudinal studies played a key role in its history. Resilience science emerged from the same roots that gave rise to *developmental psychopathology*, an integrative and multidisciplinary approach to mental health theory and practice that emphasizes the full range of individual differences in adaptation and development over the lifespan (Cicchetti, 2006, 2010; Masten, 2006a, 2012a). The study of resilience in children at risk for mental health problems is one of the core domains of work under the broad umbrella of developmental psychopathology.

WHAT EXACTLY DOES *RESILIENCE* MEAN IN DEVELOPMENTAL SCIENCE?

The word *resilience* stems from the Latin verb *resilire* (to rebound). In colloquial English, the word *resiliency* retains a similar meaning, referring to the property of elasticity or springing back, much as a rubber band does after it is stretched and then released. In engineering science, materials are said to be resilient when they resist cracking or breaking under stress or return to original form after distortion by stress or load. In ecology, resilience refers to “the capacity of a system to absorb disturbance and reorganize and yet persist in a similar state” (Gunderson, Folke, & Janssen, 2006). The conceptual similarity among resilience concepts in multiple fields likely stems in part from shared origins in general systems theory (von Bertalanffy, 1968). Resilience refers to the adaptation and survival of a system after perturbation, often referring to the process of restoring functional equilibrium, and sometimes referring to the process of successful transformation to a stable new functional state. As a living system, a human individual could be described as resilient when showing a pattern of adaptation or recovery in the context of potentially destabilizing threats.

With each wave of research on resilience in children, the definitions and models of resilience became more dynamic. In early work, resilience often was defined in terms of doing well or avoiding mental illness in the context of risk or adversity. In the behavioral sciences of psychology, psychiatry, and related fields, the concept of resilience continues to refer generally to *positive adaptation in the context of risk or adversity*. It is a very broad term that encompasses a range of phenomena, including the capacity for doing well under adversity, the processes of coping with challenges, recovery from catastrophe, posttraumatic growth, and the achievement of good outcomes among people at high risk for failure or maladaptation. In developmental studies, resilience refers to positive development in a context of high risk for problems or maladjustment. In more recent work, resilience is defined in

terms of processes or systems, with an eye toward achieving a terminology that could work across disciplines that focus on different systems and levels of analysis and thus would facilitate integrative research and application that requires this type of integration, such as disaster response. Currently, I would define resilience as follows:

The capacity of a dynamic system to adapt successfully to disturbances that threaten system function, viability, or development.

This book is focused on resilience in individual young people, but the concept of resilience can be applied to any dynamic system, including a family, a school, a community, an organization, an economy, or an ecosystem.

From a general systems theory perspective, resilience does not necessarily connote “good” outcomes from the viewpoint of human rights or individual child well-being. It is possible for a “resilient” organization or government, for example, to commit atrocities against children. However, in developmental science, the concept of resilience does carry the connotation of good outcomes, requiring definitions and judgments about what constitutes positive or desirable outcomes for children.

Patterns and Pathways of Resilience

The meaning of resilience can also be expressed in terms of life-course patterns of functioning or development. Figure 1.1 illustrates a sample of basic life pathways or patterns encompassed by the construct of resilience. In all cases, there is sufficient adversity experienced to potentially derail the normal course of development or functioning.

For youth on Path A, a relatively steady course of good functioning is maintained, even though there is an acute trauma experienced at time x , or there is a history of chronic ongoing adversity before and after time x , such as growing up in poverty, with domestic violence, or in a war-torn community. The adaptation of these young people may fluctuate but their function stays in the

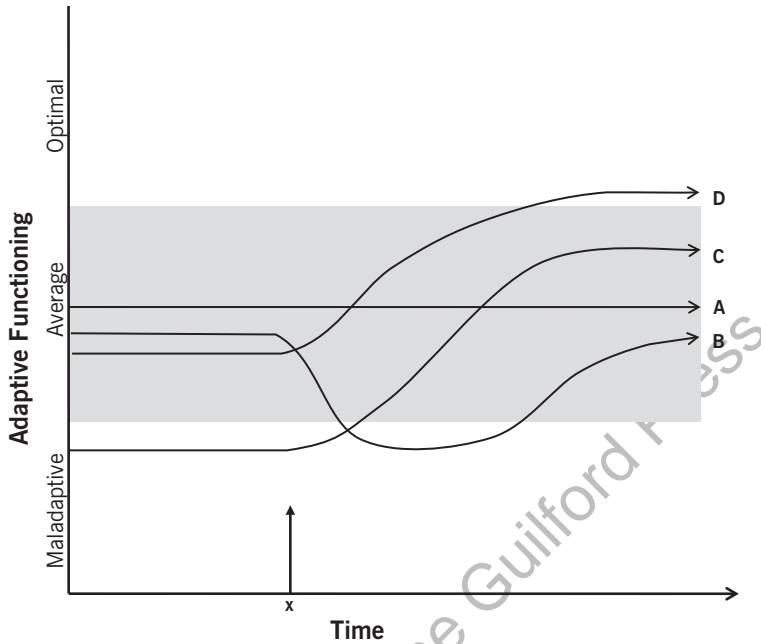


FIGURE 1.1. A sample of resilience pathways: (A) stress resistance in the context of either acute trauma occurring at time x or chronic adversity before and after time x ; (B) recovery following acute, overwhelming trauma at time x ; (C) normalization after marked *reduction* of adversity beginning at time x ; (D) posttraumatic growth following trauma at time x .

zone of normal adaptation, meeting the general expectations for healthy development as they move through life. It was often cases like these that captured the attention of pioneering scientists who were studying children at risk for psychopathology and other problems. School teachers often know of such children, growing up in chaotic households or poverty, who nevertheless do well at school, succeeding academically and socially. Initially, such children were described as “invulnerable” or “stress resistant,” as scientists wondered what could account for their positive functioning in the midst of extremely challenging circumstances. As research accrued, the secrets of their success looked less mysterious; powerful protective forces appear to be operating on behalf of such children.

Path B represents a different kind of resilience, characterized by trauma and recovery. These individuals are developing normally until they encounter overwhelming adversity. Adaptive functioning declines, as one would expect in the face of disaster, but then improves as the individual recovers to normal functioning. This pattern can unfold relatively quickly, with an acute crisis and rapid recovery, or over more extended periods of time, when it takes longer for individuals to recover as often happens following a major disaster. Children do recover from the loss of parents, terrifying experiences, and other major blows in life.

Path C shows a major shift in the quality of adaptation or development over time, from poor functioning to good functioning. This “normalization” pattern is what one hopes to see if rearing conditions or resources substantially improve in the lives of individuals living in conditions of extreme deprivation or chronic adversity. One of the most dramatic examples in modern times of this situation occurred after the fall of the Ceaușescu regime in Romania, when many children were moved out of orphanages ill suited to the developmental needs of children into adoptive homes. Though there have been lingering problems for some of these children, particularly those who lived for long periods in the worst situations, many internationally adopted Romanian orphans showed marked improvements in development following improved rearing conditions (e.g., Rutter, 2006; Rutter & the English and Romanian Adoptees Study Team, 1998; Rutter, Sonuga-Barke, Beckett, 2010; Rutter, Sonuga-Barke, & Castle, 2010).

Path D represents posttraumatic growth, where adaptive function improves following trauma or adversity. This pattern has been reported in the literature, although research on posttraumatic growth, particularly in children, is limited (Masten & Narayan, 2012).

Resilience is a broad concept and many other pathways toward or away from resilience could be illustrated. Given the complexity of human life and myriad influences on adaptation and development, one would expect that there would be many roads to resilience. Examples of the diverse paths of resilience are discussed throughout this book.

TWO JUDGMENTS: THE CRITERIA FOR RESILIENCE

Identifying resilience in a person's life requires two kinds of evaluation: judgments about exposure to adversity and judgments about how well a person is doing in the midst or aftermath of the adversity. In other words, resilience is inferred from two sets of evaluations, one concerning the nature of threat posed by their life experiences (has there been risk?) and a second one about the quality of adjustment or a person's development (is this person doing okay?). People make these judgments all the time in the course of daily life and most, when asked, can think of a person from their own experience who has manifested resilience.

If there is little or no threat in an individual's life, or if there is not (yet) evidence of recovery or good outcome, then there is no observed resilience (at least not yet). This sounds obvious and straightforward, but the devil is in the details of defining risk and good outcome, and who gets to decide on these criteria. It has become clear in the study of resilience that these decisions can be complex and controversial (Luthar, 2006; Masten 2007, 2012a; Rutter, 2012b).

Judging Threats to Child Development and Adaptation

Over the past century, many forms of risk to child development and functioning have been studied, ranging from premature birth to war (Evans, Li, & Sepanski Whipple, 2013; Garmezy, 1974; Kopp, 1983; Obradović, Shaffer, & Masten, 2012; Sameroff & Seifer, 1983). *Risk factors* are established predictors of undesirable outcomes, where there is evidence suggesting a higher-than-usual probability of a future problem. There are numerous well-documented risks for specific and general problems in the developmental sciences, including attributes of the environment, family, or child, and a wide variety of potentially stressful experiences. Examples include low birth weight, family violence, low SES, divorce, harsh or neglectful parenting, natural disasters,

terrorism, cognitive difficulties, malnutrition, poverty, homelessness, and other forms of family displacement. A risk factor could be highly specific to a particular outcome, but many of the most common risk factors of childhood (e.g., poverty, maltreatment, or birth to a very young, single parent) predict multiple problems of behavior, health, and growth. There are several likely explanations for this observation. First, risk factors are often related to one another: risk predicts risk. Poverty, malnutrition, exposure to lead, low birth weight, low maternal education, and child neglect co-occur. Thus, when one risk factor is measured, there are likely to be a number of other unmeasured risk factors that also are present. Second, risk factors may reflect underlying processes that are so fundamental that they undermine more than one aspect of adaptation and development. Normal development requires basic nutrition; malnutrition can produce a broad array of problems in growth, brain development, and cognition (Fiese, Gunderson, Koester, & Washington, 2011; Walker et al., 2011). And third, it is likely that one problem leads to another, so that over time, the same risk factor could account for snowballing problems in multiple domains. A risk factor that negatively influences the development of self-regulation skills in the preschool years, representing essential tools for attention and impulse control, can have profound consequences for subsequent success at school, interfering with learning, friendships, and relationships with teachers (Diamond & Lee, 2011; Masten, Herbers, et al., 2012).

Almost immediately after risk research began, investigators realized that risk factors rarely appear in isolation in the lives of children, but often occur in batches or pile up over time. Investigators described this phenomenon in terms of *cumulative risk* (Masten, Best, & Garmezy, 1990; Rutter, 1979; Sameroff, Seifer, & Bartko, 1997). Moreover, it became clear that the likelihood of problems increased as the number of risk factors increased. Behavioral and emotional problems in children were much more common among those with multiple risk factors as compared with children who had few or no major risk factors (Evans et al., 2013; Obradović et al., 2012). Further, investigators also recognized that most of the major risk factors (predicting very broadly or with

large effects) were actually markers of much more complex processes embedded with many threats and stressors. Divorce, for example, is a general risk factor for a variety of child and adult problems, over both the short and long term, but it is not a simple experience (Hetherington, 1979; Kelly & Emery, 2003). Years of interparental conflict may precede and follow divorce, and there may be many additional threats associated with family breakup, including financial strains and disruptions in housing, schooling, and relationships with family and friends, as well as the stresses of parental dating or reconstituted families.

In the resilience literature, there have been two major approaches to the study of cumulative risk. One is focused on tabulating the number of known risk factors present in a person's life. The second approach calculates the level of exposure to stressful events and experience, either by summing negative life events in a given time period or otherwise quantifying the severity of cumulative exposure to potentially damaging life experiences. Cumulative risk scores are then related to outcomes of interest, as discussed in more depth in Chapter 2, on models of risk and resilience. As cumulative risk levels increase, more problems typically are observed on average in a group of people (see discussion on *risk gradients* in Chapter 2).

Judging How Well Life Is Going: Developmental Tasks, Competence, and Cascades

To determine or study resilience, one must also judge how well an individual person (or system) is doing in terms of adaptive function or development, either in the short term or in the long term. In complex, living organisms like human beings, positive outcomes can be judged in many ways and at multiple levels of analysis (Cicchetti, 2010; Masten, 2007; Masten, Burt, & Coatsworth, 2006). Over the years, there has been some controversy about the criteria for defining positive adaptation for resilience studies, including debates about whether to include internal well-being along with external achievements, who should define the

criteria, and whether to use global or specific criteria (see Chapter 12; Luthar, 2006; Luthar, Cicchetti, & Becker, 2000; Masten, 1999, 2007, 2012a, 2013b; Schoon, 2006).

In behavioral studies of resilience, two popular kinds of criteria for judging outcomes focus on positive or negative function in terms of (1) competence or success in age-salient developmental tasks or (2) symptoms of psychopathology. Whether one focuses on desirable or undesirable outcomes or both, evaluations are made about how a person's life is going in relation to established norms or expectations grounded in developmental, historical, cultural, and/or situational contexts.

It is not surprising that the absence of symptoms related to mental health problems has been popular as a criterion for defining good adaptation, given that the study of resilience arose from efforts to understand and prevent the development of mental illness. If children at risk for mental disorders are studied, then it would be reasonable to define good outcomes in terms of avoiding mental health problems. However, if one were to ask ordinary adults in society to think of a person whose life is going well, it is unlikely they would respond, "She is not mentally ill." It is much more likely that they would describe positive qualities or achievements. Similarly, if one asks parents what outcomes they desire for their children, parents will describe achievements or happiness rather than the absence of problems. Parents typically want their children to succeed in relationships, in school, in jobs, and also in finding happiness, though implicitly they may want their children to avoid mental illness, teen pregnancy, drugs, or dropping out of school.

Developmental studies of resilience often define good adaptation in relation to success in age-salient developmental tasks (Masten, 2001; McCormick, Kuo, & Masten, 2011; Roisman, Masten, Coatsworth, & Tellegen, 2004; Sroufe, 1979). Developmental tasks are the expectations for behavior and accomplishments shared by members of a community or society for people of different ages. The idea of developmental tasks has deep roots (see Masten, Burt, et al., 2006) but it was popularized in education and human development by Robert Havighurst (1974) when he was a professor at the University of Chicago. Some of these expectations

for the behavior of children and youth are so widely held among human societies as to be labeled “universal.” All societies expect children to learn to walk and talk and follow the rules of the society. Other tasks are common among societies of similar industrial development or culture. For example, many communities worldwide expect children to attend school and to learn something useful there. Still, there are developmental tasks that are much more specific to a given region or cultural group, such as the expectation to learn weaving or fishing. Also, there are optional developmental tasks at some periods of life, when individuals in a particular society or culture have some leeway to choose alternatives (e.g., focus on a job or focus on child rearing).

Developmental tasks typically include observable achievements, such as talking or academic achievement, but they also may include internal achievements, such as happiness or a sense of identity. Erik Erikson (1963, 1968), for example, viewed identity formation as the key developmental challenge of adolescence. Examples of common developmental tasks in many industrialized nations are provided in Table 1.1. In a given period of development, there tends to be a group of salient developmental tasks that are particularly important for judging how a person is doing. These salient tasks reflect both the capabilities of typical human individuals of a given age or level of experience, and also the collective wisdom of the culture as to important milestones and predictors of success in the future in that culture. As people mature, some tasks wane in importance while others emerge. During the toddler years, for example, crawling becomes less important as walking is achieved. Similarly, as children become adults, success in school becomes less salient and success in work or parenting becomes more salient.

Young children have little awareness of these developmental task expectations of their parents and society, but are judged by such criteria nonetheless. Older children and youth become quite aware of these criteria and may evaluate their own success, failure, or self-worth according to how well they perceive themselves to be doing on these tasks, or how they perceive others are judging their progress or success. Youth who become alienated from their families or society may pursue paths through life that are

TABLE 1.1. Common Age-Salient Developmental Tasks

Infancy period

Forming attachment bonds with primary caregivers
 Learning to sit and crawl
 Emerging: learning to communicate by gesture and language

Toddler and preschool period

Waning: crawling
 Learning to walk and run
 Learning to speak the language of the family
 Obeying simple commands
 Learning to play with other children
 Emerging: self-control of attention and impulses

Early school years

Attending school and behaving appropriately
 Learning to read and write the language of the community
 Getting along with other children
 Respecting and obeying elders
 Emerging: making close friends

Adolescence

Adjusting to physical maturation
 Successful transitioning to secondary schooling
 Following the rules and laws of society
 Committing to a religion
 Forming close friendships
 Emerging: exploring identity, romantic relationships, work

Early adulthood

Waning: academic achievement
 Achieving a cohesive sense of self
 Forming a close romantic relationship
 Contributing to family livelihood through work in the home or community
 Establishing a career
 Establishing a family
 Emerging: civic engagement

deliberately at odds with the developmental task expectations of the larger society. Erikson (1968) described this phenomenon in terms of “negative identity” formation.

Why do societies, parents, other stakeholders, and eventually children themselves care about competence in developmental tasks? I think it is because societies and families have observed over generations that these developmental milestones signify that a child is on track to do okay in the future. There is a popular belief that *competence begets competence* in these developmental tasks and this tenet also is central to developmental theories of competence and its development. The science on competence in development strongly supports this core idea (Heckman, 2006; Masten, Burt, et al., 2006; McCormick et al., 2011).

The thesis that how well one does in one developmental task domain can spill over to affect other domains of adaptation has been examined most broadly in research on *developmental cascades*. Cascading, progressive, or snowball effects generally refer to spreading consequences over time from one domain of function to another, one level of function to another, one system to another, or even one generation to another (Masten & Cicchetti, 2010c). There can be positive or negative cascades in a child’s life. Cascades are discussed further in later chapters on models, research findings, and interventions to promote positive or interrupt negative cascades.

Children or youth who are doing well in all the ways that children might be judged in the community and family in which they live could be said to be well-adjusted, competent, successful, or adaptive. However, such children would not meet the criteria for resilience unless they also had a history of high risk or adversity exposure. By definition, resilience requires evidence of risk as well as positive adaptation.

WHAT MAKES A DIFFERENCE?

The study of resilience ultimately has a practical goal, to inform efforts to change the odds in favor of positive adaptation and

development. From its inception, resilience research has been driven by this broad question: What makes a difference for children whose lives are threatened by disadvantage or adversity? The pioneers believed that understanding resilience processes—how it is that some children successfully overcome severe life challenges to grow up competent and well-adjusted—would provide important strategies for intervening to prevent or ameliorate the effects of adversity on child development and well-being. The first step on the road to understanding resilience was to identify the differences between those who made it and those who did not, searching for clues to what matters. There are a number of ways to do this, but the simplest is to compare people from the same background or with the same risk factors who turn out very differently. These groups often differ in ways that suggest adaptive processes at work.

The characteristics that distinguish resilient from maladaptive children and youth—differences in the children, their families, their relationships, or other aspects of their lives—are so consistent across diverse studies worldwide that it is possible to compile a “short list” of commonly observed resilience factors (described in Chapter 6). These factors, including individual, family, and community qualities, are generally associated with better outcomes among young people who have experienced adversity. This list has important implications for uncovering adaptive processes that explain much of the resilience observed across diverse people and situations. At the same time, these general protections would not be expected to account for all cases of observed resilience. Undoubtedly, there are circumstances when unique configurations of individual risks and protections combine in a particular instance to yield resilience.

THE ORGANIZATION OF THIS BOOK

In the next chapter, I describe key models of risk and resilience that have guided research on resilience in human development. Part II of the book provides a concise overview of key

evidence about resilience in children and youth, highlighted with case and research examples. It is not an exhaustive review that would require multiple volumes, but rather provides an overview of three major kinds of resilience studies with illustrative research examples. In these chapters, I selectively review literature on resilience in children exposed to common negative life events, poverty and homelessness, and disaster and war, focusing on illustrative findings from my own and related studies of children exposed to both common and extraordinary adversities. In Part III, I describe the short list of factors implicated in resilience research and discuss what these factors suggest about the adaptive systems and processes behind resilience. Additional chapters in this section further discuss research on resilience from the perspective of multiple levels of analysis. One chapter examines the emerging neurobiology of resilience. Additional chapters consider resilience in relation to three important contexts of development: families, schools, and culture. Part IV summarizes the implications and lessons of research on resilience, both for efforts to promote resilience in practice and policy and also for future research. In Chapter 11, I present a resilience framework and guidelines for practice and policy that aim to promote positive adaptation and development in children at risk due to adversity or disadvantage. The concluding chapter summarizes the lessons learned to date about resilience in development and also discusses enduring controversies in resilience science as well as new research horizons. Resilience models and research are just beginning to encompass exciting advances in the neurobiological sciences. At the same time, investigators are beginning to test resilience theories about specific protective processes through intervention experiments aiming to create resilience and alter the course of human development in more positive directions. A glossary of terminology as used in this book can be found in Appendix A.

This book is focused on the development of individual resilience, rather than the resilience of larger systems, such as family or community resilience, though clearly the resilience of the systems in which the lives of children are embedded influence the resilience of the children connected to these systems. Thus, I do

address the roles of families, schools, communities, and culture in the resilience of individual young people. This book also focuses on resilience in the early decades of life, from childhood into early adulthood, when foundations for resilience are established. There is growing interest and research on resilience in adulthood, but much of the initial research was focused on the years from birth to maturity, rather than adult development or aging. Resilience in the middle and late years of life is a rapidly growing area of research (see Hayslip & Smith, 2012; Reich, Zautra, & Hall, 2010). I give special attention to developmental transitions (e.g., into school, into adolescence, into adulthood), because these are crucial windows of vulnerability and opportunity for children at risk. I also discuss late bloomers, who shift developmental direction dramatically in the transition to adulthood.

The thesis of this book is a simple one: Resilience arises from “ordinary magic” and it is possible to understand where it comes from and how to foster it. However, this does not mean that resilience is a simple phenomenon. Human adaptation and development are highly complex and the worlds in which children grow up are diverse and ever changing. As a result, the path to understanding resilience is not an easy journey. Nonetheless, there is progress. Moreover, there are children who cannot wait for scientists to understand the whole story. The purpose of this book is to consider what we know now that could guide efforts to help children unlikely to make it on their own.