

IN BRIEF | THE SCIENCE OF RESILIENCE

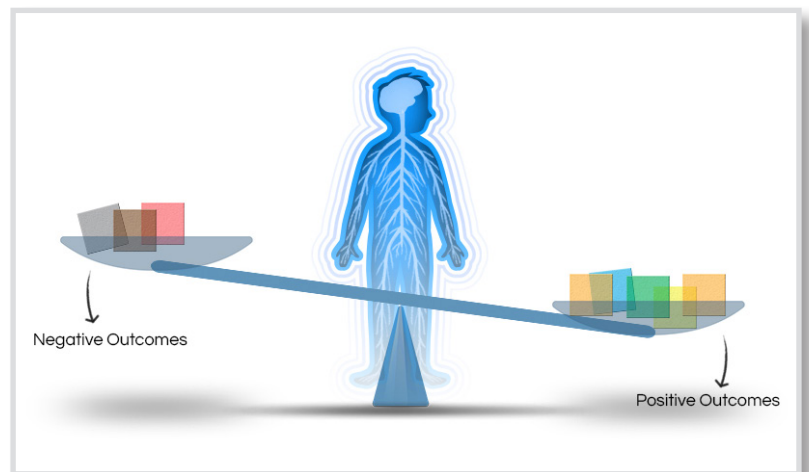
A series of brief summaries of essential findings from recent scientific publications and presentations by the Center on the Developing Child at Harvard University.

Reducing the effects of significant adversity on young children's healthy development is critical to the progress and prosperity of any society. Yet not all children experience lasting harm as a result of adverse early experiences. Some may demonstrate “resilience,” or an adaptive response to serious hardship. A better understanding of why some children do well despite early adversity is important because it can help us design policies and programs that help more children reach their full potential.

One way to understand the development of resilience is to visualize a balance scale or seesaw (see image below). Protective experiences and adaptive skills on one side counterbalance significant adversity on the other. Resilience is evident when a child's health and development are tipped in the positive direction, even when a heavy load of factors is stacked on the negative side. Understanding all of the influences that might tip the scale in the positive direction is critical to devising more effective strategies for promoting healthy development in the face of significant disadvantage.

1 Resilience requires supportive relationships and opportunities for skill-building. No matter the source of hardship, the single most common factor for children who end up doing well is having the support of at least one stable and committed relationship with a parent, caregiver, or other adult. These relationships are the active ingredient in building resilience: they provide the personalized responsiveness, scaffolding, and protection that can buffer children from developmental disruption. Relationships also help children develop key capacities—such as the ability to plan, monitor, and regulate behavior, and adapt to changing circumstances—that better enable them to respond to adversity when they face it. This combination of supportive relationships, adaptive skill-building, and positive experiences constitutes the foundation of resilience.

2 Resilience results from a dynamic interaction between internal predispositions and external experiences. Children who do well in the face of significant hardship typically show some degree of natural resistance to adversity *and* strong relationships with the important adults in their



When positive experiences outweigh negative experiences, a child's “scale” tips toward positive outcomes.

family and community. Indeed, it is this *interaction* between biology and environment that builds the capacities to cope with adversity and overcome threats to healthy development. Resilience, therefore, is the result of a combination of protective factors. Neither individual characteristics nor social environments alone are likely to produce positive outcomes for children who experience prolonged periods of toxic stress.

3 Learning to cope with manageable threats to our physical and social well-being is critical for the development of resilience. Not all stress is harmful. There are numerous opportunities

in every child's life to experience manageable stress—and with the help of supportive adults, this “positive stress” can be beneficial. Over time, both our bodies and our brains begin to perceive these stressors as increasingly manageable and we become better able to cope with life's obstacles and hardships, both physically and mentally. However, when adversity feels overwhelming and supportive relationships are not available, stress can turn toxic and “tip the scale” toward negative outcomes.

4 Some children respond in more extreme ways to both negative and positive experiences.

These highly sensitive individuals show increased vulnerability in stressful circumstances but respond in exceptionally positive ways within environments that provide warmth and support. Therefore, programs that effectively provide responsive relationships to children facing serious hardship may see dramatic turnarounds in the very children who seem to be doing the worst.

5 Individuals never completely lose their ability to improve their coping skills, and they often learn how to adapt to new challenges. The brain and other biological systems are most adaptable early in life, and the development that occurs in the earliest years lays the foundation for a wide range of resilient behaviors. However, resilience is shaped throughout life by the accumulation of experiences—both good and bad—and the continuing development of adaptive coping skills connected to those experiences. What happens early may matter most, but it is never too late to build resilience.

For more information, see “Supportive Relationships and Active Skill-Building Strengthen the Foundations of Resilience: Working Paper 13.” www.developingchild.harvard.edu/resources/

IMPLICATIONS FOR POLICY AND PRACTICE

- **The capabilities that underlie resilience can be strengthened at any age.** Age-appropriate activities that have widespread health benefits can also improve resilience. For example, regular physical exercise and stress-reduction practices, as well as programs that actively build executive function and self-regulation skills, can improve the abilities of children and adults to cope with, adapt to, and even prevent adversity in their lives. Adults who strengthen these skills in themselves can model positive behaviors for their children, thereby improving the resilience of the next generation.
- **We can prevent most forms of severe hardship that young children and their parents face.** Extreme adversity, such as war or environmental devastation, nearly always generates serious problems that require treatment. More common—and preventable—triggers of toxic stress in families and communities include the often interrelated threats of poverty, crime, mental illness, substance abuse, discrimination, and community violence. Strategies that build child and adult capacities work best when they are integrated within complementary policies that collectively lower the burden of stress on families. For example, home-visiting programs that coach new parents on how to interact positively with children could be coordinated with therapeutic interventions for substance abuse or mental illness and high-quality early care and education.
- **Research has identified a set of factors that help children achieve positive outcomes in the face of significant adversity.** Individuals who demonstrate resilience in response to one form of adversity may not necessarily do so in response to another. Yet when communities and families strengthen these factors, they optimize resilience across multiple contexts. Factors include:
 - (1) providing supportive adult-child relationships;
 - (2) scaffolding learning so the child builds a sense of self-efficacy and control;
 - (3) helping strengthen adaptive skills and self-regulatory capacities; and
 - (4) using faith and cultural traditions as a foundation for hope and stability.



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