Resilience in Children’s Adaptation to Negative Life Events and Stressed Environments

NORMAN GARMEZY, PhD

In recent years, there has been a growing acceptance of the concept of resilience in children’s development. The construct is designed to represent a reality that many children exposed to dangerous environments and to threatening life events continue to strive to make positive adaptations to such stressors.

All children are tested by negative events. The concept is not intended to present a heroic image of such children when compared with others who meet similar situations with retreat, despair, or disorder. Indeed, to speak of resilience does not necessarily reflect an imperviousness to stress. Rather, it is designed to reflect the capacity for recovery and maintained adaptive behavior that may follow initial retreat or incapacity upon initiating a stressful event.

In recent months, such an event was witnessed in the disruption of families by the Persian Gulf War. Our newspapers and television screens provided scenes of mothers and fathers going off to war leaving their children, even newborns, behind. Fortunately, these separations were relatively brief, and the frequency of parental loss was limited. By contrast, other events and statuses can be less transient and may persist across generations in some families. The most striking and pervasive in our nation is the festering sore of poverty, which once was considered largely urban, and is now reaching into rural areas in states where farming had previously been a secure presence.

In terms of pathology, poverty status contributes disproportionately to disordered behavior. In a recent conference sponsored by the National Institute of Mental Health and the John D. and Catherine T. MacArthur Foundation on “Community Violence and Its Impact on Children,” the topics reflected such disordered consequences. The breadth of inquiry was broad, tapping symptoms associated with post-traumatic stress disorders, delinquency and antisocial disorders, threats to adaptive personality development.

The term resilience by definition means the tendency to “rebound or recoil,” “to spring back,” “the power of recovery.”
Being resilient or adaptive does not imply immunity to negative life events.

in children exposed to violent environments, and questions of children's survivorship into adulthood in areas riddled with violence. Such content dealt with the threat component present in impoverished communities.

However, the conference coordinators also chose to look beyond such threats and posed the issue of adaptation and survival. They invited participants to consider another type of outcome by asking the following questions:

- What do we know about factors that protect some children reared in chronically violent environments?
- What can we conclude from studies of the characteristics of such children, their families, and their settings that predispose youngsters not solely to maladjustment following exposure to violence, but also protect children from such adjustment problems following violence exposure?

Despite the growth of violence in our society, the National Institute of Mental Health leadership has recognized that there is a diversity of outcomes in children exposed to threat and that some children, despite such exposure, have proven to be survivors and ultimately contributors to the national well-being.

VULNERABILITY IN CHILDHOOD

Risk factors and their consequences have been studied both in terms of the frequency and intensity of negative outcomes ranging from manifest distress behaviors to clearly evident psychopathological disorders. I draw on two examples, one from England and the other from the United States.

Michael Rutter, a distinguished British child psychiatrist, has been a leader in the search to understand factors that influence adaptive and maladaptive behaviors in children exposed to multiple stressors. Some 20 years ago, Rutter and his colleagues studied children on the Isle of Wight and compared their findings with those derived from a similar inquiry in an underprivileged inner borough of London. Rutter described six family variables that were significantly associated with subsequent psychiatric disorders in the children from the London setting. These included:

- severe marital discord,
- low socioeconomic status,
- overcrowding or large family size,
- parental criminality,
- maternal psychiatric disorder, and
- the admission of the child into foster care.

The significant consequences of cumulative stressors on children's adaptation can be seen in the following results. Those children who were exposed to none of the six stressors or to only one, despite the poor economic status of the family, showed only a 1% increase in psychiatric disorders when compared with a group in which these stressors were absent. Exposure to two stressors resulted in a fourfold increased risk for psychiatric disorders in the children. Three stressors further increased the probability of a negative outcome, while four or more stressors raised the incremental rate for disorder to 21%. These findings suggest that a confluence of stress factors can truly burden many children in our lowest socioeconomic strata.

Sameroff, Seifer, and their colleagues in Rochester, New York have demonstrated similar results in research conducted over a span of 15 years. Their research confirms the power of multiple risk factors in determining outcome. They too found a similar tendency for multiple elements to cohere in many of the disadvantaged families studied.

These investigators chose 10 stressful family factors:

- a history of mental illness in the mother,
- high maternal anxiety,
- mother's rigidity in attitudes, beliefs, and values with regard to her child's development,
- few positive maternal interactions that would foster a child's development,
- unskilled occupational status of the head of the household,
- minimal maternal education,
- disadvantaged minority status,
- reduced family support,
- stressful life events in the family, and
- large family size.

Sameroff et al first observed these children quite intensively in infancy. When the children were 4 years old, these investigators secured measures of their intelligence and adaptive functioning. The results were striking. The authors reported that each risk factor cost a child some four IQ points relative to children with normative development. While this is a simplification of the authors' findings, their goal was to describe the cumulative impact of multiple risks in terms of intellectual consequences as well as social/emotional outcomes in the children. In referring to the fostering or hindering of a child's competency, the investigators emphasized the negative environmental context of poverty, the limited reserves these families have in coping with stress, and the limited resources available to be dispersed among family members including parental limitations in the lack of flexibility in dealing with and understanding their children's needs.

Nine years later, when the children were 13 years
old, a follow-up investigation suggested that the same relationships within the family and the patterns of their social environment demonstrated a pattern of continuity as evidenced by a paucity of environmental support, restricted parenting, limited opportunities for a child's development, and comparable evidence that the greater the number of risk factors, the greater the impact on the child's cognitive and social/emotional development.

RESILIENCE

Studies of children exposed to environmental and familial deficits provide evidence that, although seemingly paradoxical, leads to the conclusion that a significant portion of children as well as adults adapt to such stressors as indexed by positive behavioral patterns and favorable outcomes. One might frame a question not typically sought in stress research: What characterizes these adaptive persons exposed to cumulative multiple stressors?

Specifically with regard to the Rutter study, one could ask: What characterized the children who did not develop a psychiatric disorder despite cumulative stress, but rather moved along a trajectory of more competent functioning? For the Sameroff et al study, one could ask: What has happened over time to the children who escaped cognitive and social/emotional deficits despite their risk status based on their mothers' psychiatric disorder?

Knowledge about these intriguing subgroups represents what is now termed resilience or stress resistance. However, these terms are not synonymous with the term invulnerability. It is difficult to advance the concept of children's invulnerability if one accepts the dictionary definition that invulnerable implies "unassailable under any condition."

By contrast, the term resilience provides metaphorically the dictionary definition of the properties in this emergent area of research: the tendency to "rebound or recoil," "to spring back," "the power of recovery." These descriptors emphasize changes that take place in some individuals who find themselves in stressful circumstance—namely, the emphasis is on an ability (or abilities) that enables the stressed person to "spring back" to a prior prestress level of adaptation.

Because this concept is so intriguing, one is forced to ask why resiliency research has been so neglected over time? I have been led to conclude that the neglect, in part, is a function of the segregation of our sciences. Psychiatry is focused on both the development and the description of psychopathology, while developmental psychology and developmental biology have fixed their agendas on normative development. The potential linkage of these and related disciplines (e.g., neurobiology and the neurosciences, behavioral and molecular genetics, personality study, and sociology) lies in the study of both normative and non-normative development. This emergent field is known as developmental psychopathology.

One aspect of this area of study is individuals who are viewed as "atypical" in the sense of their departure from expectations, such as individuals who despite the presence of disabling risk factors appear to function well, while others may develop a psychopathological disorder despite the absence of risk factors in their personal, familial, or environmental backgrounds.

Both groups are atypical in terms of outcome, but the former leads to the search for protective factors while the latter demands a more pervasive analysis of biological (including genetic), psychological, and sociocultural risk factors.

The first type of research emphasizing resilience under stress is of rather recent origin while the second emphasizes an assumption of concealed risk. In other words, if the stressor is not immediately evident in a maladaptive child, then one goes searching for concealed risk elements. Conversely, if positive adaptation is present in the context of manifest stressors, the challenge that is posed is a search to identify not readily evident protective factors in the person or the environment. One must be prepared, however, for those mysteries in the human condition that are reflected in non-solutions to such searches.

WHY RESILIENCE RESEARCH?

The concept of resilience has a special hold on our imagination for multiple reasons. First, our nation's history and the national ethos serves a conception of "up from poverty." Second, the construct of resilience is compatible with the traditions of a nation comprised largely of former immigrants yearning to be free. Third, the Horatio Alger stories of pride, energy, and personal initiative merge with overwhelming adversity, and this too is part of the national legend. One should note, however, that such myths are detrimental in today's America, for it leads us to view those who fail to come "up from poverty" as both unworthy and blame-worthy.

FACTORS IDENTIFIED WITH RESILIENCE

In the mid 1980's, I turned to a somewhat slim literature in an effort to identify the attributes—
Identification of the dynamics of resilience exhibited by those who are locked into poverty has been neglected in research on resilience.

personal, familial, and societal—that appeared to correlate with children who were adaptable under stressful circumstances.* Three factors emerged:
- **Individual Factors.** Individual factors are reflective, in part, of temperament indicators such as activity level, reflectiveness in meeting new situations, responsiveness to others, and cognitive skills as adduced from IQ test measures.
- **Familial Factors.** Familial factors, despite the family's poverty status or the presence of marked marital discord, are marked by warmth, cohesion, a concern by parents for the well-being of their children, and the presence of some caring adult in the absence of responsive parents. This responsibility might be borne by a supportive grandparent.
- **Support Factors.** Support factors are evidenced by a person, possibly external to the family who provides external support, who is used by the resilient child. This person could be a strong maternal substitute, a supportive and concerned teacher, or the presence of an institutional structure such as a caring social agency, or a social worker, an involved school system, or a church that serves to foster the child's ties to the larger prosocial community.

Recently, in summarizing her 30-year longitudinal study of The Children of Kauai, Professor Emmy Werner16 confirmed this triad of supportive elements for disadvantaged children in a different cultural setting and further elaborated the constellation of factors. She wrote:

Three types of protective factors emerge from our analyses of the developmental course of high-risk children from infancy to adulthood: 1) dispositional attributes of the individual, such as activity level and sociability, at least average intelligence, competence in communication skills (language, reading), and an internal locus of control; 2) affectional ties within the family that provide emotional support in times of stress, whether from a parent, sibling, spouse or mate; and 3) external support systems, whether in school, at work, or church, that reward the individuals' competencies and determination, and provide a belief system by which to live.

The preliminary findings reviewed here also suggest that such protective factors may have a more generalized effect on adaptation in childhood, adolescence, or adulthood than do specific risk factors or stressful life events such as poverty, perinatal stress, parental alcoholism or psychopathology, and teenage pregnancy.16

RESILIENCY AND POVERTY

What these findings and the growing body of a literature of resilience research cloak is the struggle of impoverished people, many of minority status, to save their children. Identification of the dynamics of resilience exhibited by those who are locked into poverty has been neglected in research on resilience. A volume by Festinger13 entitled, No One Ever Asked Us...A Postscript to Foster Care, elegantly addresses the problem.

This book focuses on the adult outcomes of 277 adults who early in their childhoods were placed in foster care in New York City because of neglect, abandonment, or parental desertion; because of the incapacity of a parent to cope, due to physical or mental illness; or because of the death of the parent. Years later, Festinger succeeded in locating a substantial proportion of her cohort in an effort to determine their adaptations in adulthood. Most had been released upon reaching their adulthood but with limited preparation for the world into which they were thrust.

Festinger compared this group with a comparison from a national survey of young adults of the same sex and age selected for study by the Institute of Social Research at the University of Michigan. Although the group of foster-reared primarily black children showed somewhat lower scholastic achievement than the control group, Festinger reported that both groups showed similar rates of employment, comparable health and symptom status, similar positive self-evaluation of their future hopes and feelings, and a comparable sense of happiness. There was no evidence in the foster-reared group of generational repetition of foster care placement or an excessive dependence on welfare or public support.

Of equal importance, the former foster group exhibited a willingness and openness to discuss their lives in the hope that others might benefit from their experiences. Many of these adults had been placed in a series of temporary foster homes as children until an adequate permanent placement was found. Others had spent their childhood and adolescence in an institutional rather than a family setting. Yet of these 277 children, only a negligible number had failed in continued on page 465
RESILIENCE IN CHILDREN EXPOSED TO EARLY CHILD ABUSE

As with many other negative life experiences, long-term studies of outcome in children subjected to physical abuse are lacking. Most studies are retrospective rather than prospective, and these often report a linkage between children who have been physically abused and a history of becoming battering parents in later life. This is not surprising. If one begins with a disordered adult cohort and looks backward to childhood, there will be a greater degree of evidence of a disordered childhood than if one begins with deviancy in childhood and prospectively studies adult outcomes. Thus, if one begins with a cohort of abused children and follows them into adulthood, there will be many diverse outcomes. However, such studies are comparatively few in number.

One such 14-year follow-up study was conducted by Zimrin in Israel. She compared two groups of abused children whose life course differed. One group had grown up to be well-adjusted adults while a comparison group showed a high degree of psychosocial pathology. Zimrin labeled the former as survivors \( n = 9 \) and the latter, nonsurvivors \( n = 19 \). After extensive interviews with these adults who were abused children, Zimrin reported findings that revealed marked differences and some similarities between these groups (Table).

It is interesting to become aware of some of the factors that characterize adaptive and maladaptive adults who were abused in childhood. The Zimrin study can be viewed as one step upward in a ladder of understanding, but a very fundamental research question remains: What are the elements in the life span that conduce to a more favorable adaptation as opposed to a negative adaptation in the adult lives of abused children? What needs to be understood are the different developmental trajectories taken by adult survivors and nonsurvivors of early abuse. What are the potential risk and protective factors that occur in the course of development from childhood to adulthood that can help to explain the diversity of outcome that follow? Longitudinal studies that fill in the 14-year span separating Zimrin's Time 1 (childhood) and Time 2 (adulthood) observations are needed. Those 14 years are critical in the developmental processes that framed such a time span. What

<table>
<thead>
<tr>
<th>Intergroup Adult Differences</th>
<th>Nonsurvivor Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>A sense of control of one's destiny</td>
<td>A sense of fatalism and submission</td>
</tr>
<tr>
<td>High self-image</td>
<td>Low self-image</td>
</tr>
<tr>
<td>Good cognitive performance</td>
<td>Poor cognitive performance</td>
</tr>
<tr>
<td>Expression of hope in fantasy</td>
<td>Absence of expression of hope</td>
</tr>
<tr>
<td>Belligerent behavior</td>
<td>Yielding and pliable behavior</td>
</tr>
<tr>
<td>Absence of self-destructive behavior</td>
<td>Self-destructive behavior</td>
</tr>
<tr>
<td>Existence of being a supportive adult or responsibility for a dependent</td>
<td>Absence of being a supportive adult; absence of responsibility for a dependent</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intergroup Adult Similarities</th>
<th>High aggression</th>
</tr>
</thead>
<tbody>
<tr>
<td>High aggression</td>
<td>Difficulty in expressing emotion</td>
</tr>
<tr>
<td>Difficulty in establishing relationships</td>
<td>Difficulty in establishing relationships</td>
</tr>
</tbody>
</table>

*Adapted from Zimrin H.1*
coming obstacles. Belligerence, if synonymous with aggressiveness, also requires that we have knowledge of the eliciting stimuli. In a competitive culture, it can carry the message of: "Don't mess with me. I can take care of myself." Again, without thoughtful longitudinal research, the events, the processes, and the reward situations in which such a posture gains rewards or avoids punishments remain unknown. Above all, it is not known how such adaptive mechanisms are acquired, nor are the biological bases of such manifestly protective behaviors known.

RESILIENT BUT NOT INVINCIBLE

In a recent review of the resilience literature, Luthar and Zigler evaluated the issue of continuity in children's resilient behavior over time. They discussed Farber and Egeland's finding that levels of competent functioning had declined over time in abused and neglected children who were evaluated at five different points between the ages of 12 and 42 months—a decline that might have been the result of abuse or persistent deprivation. Luthar and Zigler imply that such findings in children who earlier had displayed social competence and positive affect raise a question of the robustness of the resiliency construct.

Such findings are not surprising nor do they challenge the concept. Rather, such findings underline the reality that being resilient or adaptive does not imply immunity to negative life events. If relentless cumulative stress affects most adults, then it logically follows that children are also affected by cumulative stress.

This view is underlined in Werner's finding that at age 30, when 62 of the original sample of 72 resilient children were observed to display good coping skills with adult responsibilities, a similar pattern of adequacy was not evident in terms of manifest happiness, life satisfaction, and stress-related health problems. Further, some of the resilient males in Werner's study had difficulty in committing themselves to intimate relationships in adulthood. In such instances, care must be exercised against a too rapid dismissal of the powerful resilience correlate of "competence." The maintenance of competence attributes under stress is one but not the sole indicator of the resilient person. Social and work competence, despite ongoing emotional distress, remain indicators of resilience. Sadness or unhappiness in stressful circumstances is not unexpected, but the retention of efficacy despite such affects is a hallmark of resilience. Sadness or unhappiness can be the normal consequence of loss or failure, and other forms of disruptive life events. However, these are not necessarily misidentifiers of a previously identified resilient child, nor are they necessarily the hallmark of a nonresilient adult.

SUMMARY

Functional adequacy (the maintenance of competent functioning despite an interfering emotionality) is a benchmark of resilient behavior under stress. While resilient adults can be identified as adults who once experienced a great deal of despair as children, I am not prepared to mark off the construct of resilience because such people may carry with them a realistic baggage of sadness and unhappiness. The very nature of despair that is present for children of the ghetto, the status of minority children in today's America, all have a reality that can neither be ignored or denied. Perhaps a portion of resilient behavior is the evaluative awareness of a difficult reality combined with a commitment to struggle, to conquer the obstacle, and to achieve one's goals despite the negative circumstances to which one has been exposed, which were and remain evocative of sadness.

REFERENCES