Humans are born *preprogrammed to bond* with one very significant person—their primary caregiver. All infants are a bundle of emotions—intensely experiencing fear, anger, sadness, and joy. The emotional attachment that grows between babies and their caregiver is the first interactive relationship of their lives and it depends upon nonverbal communication. The bonding infants experience determines how they would relate to other people throughout their lives, because it establishes the foundation for all verbal and nonverbal communication in their future relationships.

Individuals who experience confusing, frightening, or broken emotional communications during their infancy often grow into adults who have difficulty understanding their own emotions and the feelings of others. This limits their ability to build or maintain successful relationships. Attachment—the relationship between infants and their primary caregivers—is responsible for:

- shaping the success or failure of future intimate relationships
- the ability to maintain emotional balance
- the ability to enjoy being ourselves and to find satisfaction in being with others
- the ability to rebound from disappointment, discouragement, and misfortune

Scientific study of the brain—and the role attachment plays in shaping it—has given us a new basis for understanding why vast numbers of people have great difficulty communicating with the most important individuals in their work and love lives. Once, we could only use guesswork to try and determine why important relationships never evolved, developed chronic problems, or fell apart. Now, thanks to new insights into brain development, we can understand *what it takes to help build and nurture* productive and meaningful relationships at home and at work.

**What is the attachment bond?**

The parent-child bond is the primary force in infant development, according to the *attachment bond theory* pioneered by English psychiatrist John Bowlby and American psychologist Mary Ainsworth. The theory has gained strength through worldwide scientific studies and the use of brain imaging technology.

The attachment bond theory states that the relationship between infants and primary caretakers is responsible for:

- shaping all of our future relationships
- strengthening or damaging our abilities to focus, be conscious of our feelings, and calm ourselves
- the ability to bounce back from misfortune

Research reveals the infant/adult interactions that result in a successful, *secure* attachment, are those where both parent and infant can sense the other’s feelings and emotions. In other words, an infant feels safe and understood when the parent responds to their cries and accurately
interprets their changing needs. Unsuccessful or insecure attachment occurs when there is a failure in this communication of feelings.

Researchers found that successful adult relationships depend on the ability to:

- manage stress
- stay “tuned in” with emotions
- use communicative body language
- be playful in a mutually engaging manner
- be readily forgiving, relinquishing grudges

The same research also found that an insecure attachment may be caused by abuse, but it is just as likely to be caused by isolation or loneliness.

**The attachment bond shapes an infant’s brain**

For better or worse, the infant brain is profoundly influenced by the attachment bond—a baby’s first love relationship. When the primary caretaker can manage personal stress, calm the infant, communicate through emotion, share joy, and forgive easily, the young child’s nervous system becomes “securely attached.” The strong foundation of a secure attachment bond enables the child to be self-confident, trusting, hopeful, and comfortable in the face of conflict. As an adult, he or she will be flexible, creative, hopeful, and optimistic.

A secure attachment bond shapes an individual’s abilities to:

- feel safe
- develop meaningful connections with others
- explore our world
- deal with stress
- balance emotions
- experience comfort and security
- make sense of our lives
- create positive memories and expectations of relationships

Attachment bonds are unique. Primary caretakers don’t have to be perfect. They do not have to always be in tune with their infants’ emotions, but it helps if they are emotionally available a majority of the time.

**Insecure attachment affects adult relationships**

Insecurity can be a significant problem in our lives, and it takes root when an infant’s attachment bond fails to provide the child with sufficient structure, recognition, understanding, safety, and mutual accord. These insecurities may lead us to:
- **Tune out and turn off** – If our parent is unavailable and self-absorbed, we may—as children—get lost in our own inner world, avoiding any close, emotional connections. As adults, we may become physically and emotionally distant in relationships.

- **Remain insecure** – If we have a parent who is inconsistent or intrusive, it’s likely we will become anxious and fearful, never knowing what to expect. As adults, we may be available one moment and rejecting the next.

- **Become disorganized, aggressive and angry** – When our early needs for emotional closeness go unfulfilled, or when a parent's behavior is a source of disorientation or terror, problems are sure to follow. As adults, we may not love easily and may be insensitive to the needs of our partner.

- **Develop slowly** – Such delays manifest themselves as deficits and result in subsequent physical and mental health problems, and social and learning disabilities.

<table>
<thead>
<tr>
<th>Parental Style</th>
<th>Resulting Adult Characteristics</th>
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<tbody>
<tr>
<td><strong>S</strong> Aligned with the child; in tune with the child’s emotions</td>
<td>Able to create meaningful relationships; empathetic; able to set appropriate boundaries</td>
</tr>
<tr>
<td><strong>A</strong> Unavailable or rejecting</td>
<td>Avoids closeness or emotional connection; distant; critical; rigid; intolerant</td>
</tr>
<tr>
<td><strong>A</strong> Inconsistent and sometimes intrusive parent communication</td>
<td>Anxious and insecure; controlling; blaming; erratic; unpredictable; sometimes charming</td>
</tr>
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Causes of insecure attachment

- **physical neglect** – poor nutrition, insufficient exercise, and neglect of medical issues
- **emotional neglect or emotional abuse** – little attention paid to child, little or no effort to understand child’s feelings; verbal abuse
- **physical or sexual abuse** – physical injury or violation
- **separation from primary caregiver** – due to illness, death, divorce, adoption
- **inconsistency in primary caregiver** – succession of nannies or staff at daycare centers
- **frequent moves or placements** – constantly changing environment; for example: children who spend their early years in orphanages or who move from foster home to foster home
- **traumatic experiences** – serious illnesses or accidents
- **maternal depression** – withdrawal from maternal role due to isolation, lack of social support, hormonal problems
- **maternal addiction to alcohol or other drugs** – maternal responsiveness reduced by mind-altering substances
- **young or inexperienced mother** – lacks parenting skills
The State of the World’s Children 2001
(Unicef.org, 2001)

THE IMPORTANCE OF AGES 0-3 YEARS

In the first moments, months and years of life, every touch, movement and emotion in a young child’s life translates into an explosion of electrical and chemical activity in the brain, as billions
of cells are organizing themselves into networks requiring trillions of synapses between them. These early childhood years are when experiences and interactions with parents, family members and other adults influence the way a child’s brain develops, with as much impact as such factors as adequate nutrition, good health and clean water. And how the child develops during this period sets the stage for later success in school and the character of adolescence and adulthood.

When infants are held and touched in soothing ways, they tend to thrive. Warm, responsive care seems to have a protective function, to some extent ‘immunizing’ an infant against the effects of stress experienced later in life. But the brain’s malleability during these early years also means that when children do not get the care they need, or if they experience starvation, abuse or neglect, their brain development may be compromised.

The effects of what happens during the prenatal period and during the earliest months and years of a child’s life can last a lifetime. All the key ingredients of emotional intelligence — confidence, curiosity, intentionality, self-control, relatedness, capacity to communicate and cooperativeness — that determine how a child learns and relates in school and in life in general, depend on the kind of early care he or she receives from parents, pre-school teachers and caregivers. It is, of course, never too late for children to improve in their health and development, to learn new skills, overcome fears or change their beliefs. But, as is more often the case, when children don’t get the right start, they never catch up or reach their full potential.

EARLY BRAIN DEVELOPMENT: A FIRESTORM OF CREATIVITY

Have you ever observed an infant watch with heightened anticipation, then squeal with delight as his mother’s face, hidden behind her hands, suddenly appears? During this seemingly simple and repetitive game, something quite dramatic is taking place as thousands of cells in the child’s growing brain respond in a matter of seconds. Some brain cells are ‘turned on’, some existing connections among brain cells are strengthened and new connections are formed.

With brain connections proliferating explosively during the first three years of life, children are discovering new things in virtually every waking moment. At birth, a baby has about 100 billion brain cells. Most of these cells are not connected to each other and cannot function on their own. They must be organized into networks that require trillions of connections or synapses between them.

These connections are miracles of the human body, depending partly on genes and partly on the events of early life. Many kinds of experiences affect how young brains develop, but nothing is more important than early care and nurturing.

A delicate dance

A child’s brain is neither a blank slate waiting for a life story to be written on it nor a hard-wired circuit planned and controlled by implacable genes. From the first cell division, brain development is a delicate dance between genes and the environment. While genes pre-order the
sequence of normal development, the quality of that development is shaped by environmental factors that affect both the pregnant and lactating mother and the young infant. Such factors as adequate nutrition, good health, clean water and a safe environment free from violence, abuse, exploitation and discrimination all contribute to how the brain grows and develops.

The uniqueness of the human brain lies not only in its size and complexity but also in the properties that make it extraordinarily interactive with experience. Every touch, movement and emotion is translated into electrical and chemical activity that shifts the genetic momentum forward, subtly modifying the way a child’s brain is wired. Human interactions are as important to the development of brain connections as having food to eat, sounds to hear and light by which to see.

**Timing is critical**

There are periods in life when the brain is particularly open to new experiences and especially able to take advantage of them. If these sensitive periods pass by without the brain receiving the stimulation for which it is primed, opportunities for various kinds of learning may be substantially reduced.

Exactly how critical ‘critical periods’ are, and how long the windows of opportunity for specific areas of development stay open, is under debate. We know that the human brain is malleable and that its capacity for reorganization continues throughout life and can be enhanced by interventions. But there is wide consensus that during early childhood the brain is taking shape with a speed that will never be again equaled.

**Developmental prime time**

The brain’s malleability also means that there are times when negative experiences or the absence of good or appropriate stimulation are more likely to have serious and sustained effects. When children do not get the care they need during developmental prime times, or if they experience starvation, abuse or neglect, their brain development may be compromised. Many children living in emergency, displaced or post-conflict situations experience severe trauma and are under exceptional and unresolved stress, conditions that are particularly debilitating for young children. Only a few synapses fire, while the rest of the brain shuts down. At these young ages, a shutdown stalls the motor of development.

**Prevention is best**

Although it is never too late to intervene to improve the quality of a child’s life, early interventions have the most significant effects on children’s development and learning. Children’s development can be enhanced with appropriate, timely and quality programs that provide positive experiences for children and support for parents. There are a wide range of successful interventions - helping a young mother and father to understand the newborn’s signals
more accurately, for example, reading a story to a group of toddlers, providing home visits to new parents.

**Lasting imprints**

Early care and nurturing have a decisive and lasting impact on how children grow to adulthood and how they develop their ability to learn and their capacity to regulate their emotions.

While it is certainly possible to develop basic skills later on, it becomes increasingly difficult. Children whose basic needs are not met in infancy and early childhood are often distrustful and have difficulty believing in themselves and in others. Children who do not receive guidance in monitoring or regulating their behavior during the early years have a greater chance of being anxious, frightened, impulsive and behaviorally disorganized when they reach school.

The brain has remarkable capacities for self-protection and recovery. But the loving care and nurture children receive in their first years — or the lack of these critical experiences — leave lasting imprints on young minds.