

## Love Becomes Flesh: Creating Attachment

We begin life with the task of getting to know those around us and learning to feel safe in their presence. Babies come equipped with an array of reflexes designed to help them bond, attach, and communicate their needs. At the same time, adults come equipped with a variety of caretaking instincts that influence their behaviors, emotions, and neurochemistry. The neural circuits of the social brain are referred to as '*experience-dependent*' because they are shaped by the child's interaction with caretakers. These same social brain networks remain plastic (flexible) throughout life and are the very ones that adults rely upon to nurture one another, be good caretakers, and keep their brains alive. Because of this, when we nurture our children, we not only build their brains but we rebuild our own as well. Playing together triggers neural plasticity and neurogenesis in both brains, so as in companion planting, we need children as much as they need us.

Being a member of a complex society requires a brain equipped to learn and process a vast amount of social information and adapt to an evolving constellation of relationships. As social animals, our brains are built through reciprocal interactions that connect us via the social synapse. That is, the space between us; the medium through which we are linked together into the larger organisms of family, tribe, society, and the human species. For humans, relationships are our first and most important environment.

From the first moments of life, we learn about the world through the attention and care we receive. The availability and quality of early caretaking shape our brains, and with sufficient nurturance, set us on a course for psychological and physical health. As we grow, our brains convert these experiences into the ways we relate to others, the feelings we have about ourselves, and our implicit expectations for the future. How we bond and stay attached to others is at the core of the health and longevity of the brain.

Attachment is a general term used to describe the physical, emotional, and conceptual connections that link us to one another. Although attachment to your children, spouse, family, and friends are all somewhat different, they utilize overlapping biological processes that make us feel good when we are together, and lonely and discouraged when we are apart. Attachments are important for all of us throughout life. When a woman holds her great-grandchild, each is stimulating the other's brain to release chemicals that enhance wellbeing, support neural growth, and improve immunological functioning. Attachments in the form of intimate relationships, friendships, and community involvement promote health, vitality, and survival.

Formal research into human attachment began with anthropologist and psychoanalyst, John Bowlby, for whom it was clear that both primate and human children thrive under the care of consistent and attentive adults. Bowlby's work and the research he inspired demonstrated some of the links between early attachment and wellbeing in adulthood. It also showed the importance of consistent caretakers and physical contact for children, and resulted in changes in child care in hospitals and orphanages.

According to Bowlby (2000), attachment schemas are unconscious memories of our experiences in early relationships that stay with us for the rest of our lives. They are stored in networks of our unconscious memory and impact our development, the quality of our relationships, and our ability to regulate our emotions. Securely attached children seem to have internalized their parents as sources of comfort, leading them to feel safe as they explore their worlds. The resulting states of mind, brain, and body serve as a secure emotional base from which to establish subsequent relationships.

The transposition of maternal attention into brain structure occurs in the human brain. The brain is a social organ, built at the interface between experience and genetics; where nature and nurture become one. Genes begin by serving as a template to organize the general structure of the brain and trigger sensitive periods of development. Later, through a process called 'transcription', genes orchestrate the ongoing translation of experience into neural material as the brain adapts to its environment. "Through the biochemical alchemy of template and transcription genetics, experience becomes flesh, loves takes material form, and our relationships with others become a part of our inner worlds" (Cozolino, 2006).

Getting to know another person well, especially our own children, can be a real challenge. Sure, we can know someone's likes and dislikes; we might even get good at guessing what they might be feeling. But ultimately, everything we know about someone else is influenced by our own needs and personal biases, some conscious, most not. With strangers, obvious differences and clear boundaries serve as reminders that we need to be wary of our assumptions, but with someone as close as our own children, boundaries can blur.

Our unconscious conflicts and needs seem to project most powerfully on those in whom we have our largest emotional investments, especially our children and grandchildren. As living extensions of our bodies, hearts, and egos, they activate our fears and fantasies, and stir up our inner demons. It can take years for parents to realize that their children are separate individuals with their own strengths and weaknesses, likes and dislikes, and hopes and dreams – if they ever do. All too often, parents damage or destroy relationships with their children because they cannot accept that their children are different from themselves. According to neuropsychologist, Louis Cozolino, "After love, you need to remember that your children are not you. Each of us is an experiment of nature that needs to discover its own expression. As parents, our job is to help our children by providing them with the emotional and material resources that allow them to discover themselves."

The implications of the social construction of the human brain are vast, extending from the importance of those sweet moments of mutual gaze between a grandmother and grandson to the communication and cooperation between nations. My hope is that as the evidence of the impact of early experience mounts, it will become clear that we need to invest more in our children and our children's children. I also suspect that this growth in awareness will accompany a parallel appreciation for the need to keep people of all ages connected for the benefit of elders, children, and those in between.