

Brave New World Has Found Our Children

By Miriam Voran for the *Valley News* (published July 8, 2005 in the *Valley News* under the title "Better Living Through Brain Chemistry? Are We Overdoing It?")

Are we losing our minds?

More children are being diagnosed with bipolar disorder, a chronic psychotic mental illness characterized by extreme mood swings between depression and mania. A "bipolar child" used to be rare, but some experts now claim that kids are as likely as adults to have the disorder. They believe that one in every 100 children could have the classic illness and another five to eight suffer from milder versions of mood and behavior dysregulation. Seeing the problem as a genetic, biologically-based brain disorder, these biological psychiatrists advocate identifying bipolar kids early and aggressively treating them with drugs.

However, this new enthusiasm for pediatric bipolar has spawned debate within child psychiatry. Some psychiatrists question the labeling of children, especially preschoolers, with a chronic psychotic illness. They fear that their colleagues over-diagnose bipolar, becoming, as it has, a popular explanation for troubled children. They caution that this label is simplistic and ignores factors like temperament, attachment, parenting, and family stress.

But it's not just pediatric bipolar that we more frequently use to explain a child's struggles. Attention Deficit Disorder (ADD), depression, and anxiety disorders are all increasingly diagnosed in children and treated with medication. This trend has reached preschoolers, whose psychoactive drug use grew two- to three-fold in the early 90s. Today, according to a recent national survey, 15% of parents give their school-age children psychoactive medication. The once controversial has become commonplace.

We now live in the era of biological psychiatry, in which nervousness and unruly behavior is medicalized and viewed as coming from our genes. Here's how it goes. Adults inform the troubled child that he has a brain disorder. They reassure him that he's not to blame. But what is he to do? Well, he can take medication and maybe learn coping strategies to manage what he and his parents are told is a life-long disability.

This narrow biological view dominates psychiatry and has permeated our culture. We have depression and anxiety "in our genes" and we suffer from "chemical imbalances." Drug advertisements promise improved parent-child interactions in just one week. Without realizing it, we have arrived at Huxley's *Brave New World*, the world of soma. The technological management of our mental life and our behavior no longer disturbs us.

We have not always believed ourselves in need of pharmacological engineering. In the late 1800s, Freud demonstrated that the psyche develops from early human experiences, that symptoms have meaning, and that self-understanding brings relief and growth. This psychological view of ourselves, and a belief in the "talking cure," provided a foundation for psychotherapy for the next century.

Informed by this psychology, which we now think old-fashioned, adults told the troubled child that he had challenges growing up, that he had not yet mastered certain skills, such as thinking instead of acting. Then, in psychotherapy, he began to understand his feelings and the ways he had tried to manage them. Both parents and therapist helped the child learn more adaptive ways to handle his emotional life. Now, it has always been accepted that the child's biology colors his experience of the world and effects his regulation of

emotions. But we used to remember that every biology works best when the mind is well-ordered. In psychotherapy, the child and parents worked hard from the mind-side to help the child most effectively use his resources.

But now, the era of biological psychiatry scorns the idea of the psyche. Is this simply the march of scientific progress? Or have we backpedaled from a dynamic understanding of mind to a simplistic focus on brain? Yes, it is true that neuroscientists have discovered unique patterns in brain structure and function that accompany mental illness. Yes, behavior geneticists are searching chromosomes for the genetic "instruction manual" for our brains. Without question, today's science uncovers ever more microscopic detail about our biological "hardware."

However, neuroscience also tells a *developmental* story about our biology that contradicts these simple mechanistic views. Brain structure, especially in regions involved in emotion regulation, is shaped through the infant's experience with caregivers. Calming, soothing, and sharing excitement in face-to-face play build the infant's growing capacity to regulate feelings. Infants of chronically depressed mothers have shown patterns of brain activity which resemble those of depressed adults. At birth, these infants have shown levels of neurotransmitters and stress hormones correlated with their mothers' biochemical profiles during pregnancy. Thus, it appears that even the prenatal environment interacts with genes to shape the newborn's brain.

Animal experiments that control for genetic variation powerfully illustrate these environmental influences. For example, prenatally-stressed rats had offspring who reacted more strongly to stress. Even as adults, these offspring showed brain differences, compared to the controls from a peaceful pregnancy. But the most important, parenting could reverse the biological impact of prenatal stress. When prenatally-stressed rats received more involved caregiving via adoption, they developed typical patterns of hormone secretion and receptors as adults. Brains change through experience.

Fortunately, human brain plasticity continues throughout life. Since we learn emotion regulation, including its biological patterning, in our earliest relationships, psychotherapy provides a relationship for re-learning. In fact, psychotherapy has altered the regional blood flow in patients with schizophrenia, depression, and social phobia. After psychotherapy, depressed patients have shown regional changes in brain glucose metabolism and in thyroid hormone levels. Working from the mind side alters the brain.

This neural plasticity means there is no simple relationship between genes and brain disorders. Medication is not the only way to address brain problems. Biological processes are continually influenced by our experiences. They are far more complex than mechanistic views suggest. Yet curiously, despite the findings of developmental science, we have embraced a narrow medical model of brains and almost forgotten the psychological view.

Certainly, economics plays a role in this dramatic shift in our self-understanding. As the pharmaceutical industry and academic psychiatry have become entwined, commercial interests drive research and define emotional struggles so that they fit available drug treatments. In this era of managed care, biological treatments are attractive and seem cheaper than long-term psychotherapy.

But as consumers, we seem to prefer drugs too. Perhaps we are reacting to Freud's legacy--the psychologizing of our culture. This burden makes us forever aware of our effect on each other and our children. Parenting, which already was a weighty

responsibility, has now become a crushing load. Biological psychiatry implies a promise to remove that burden.

In the end, each of us must weigh the costs and benefits of biological and psychological treatments. Drug advertisements readily proclaim the benefits of the biochemical view, as do many parents, physicians and teachers who have seen children respond to medication. But, psychotropic drugs may also effect developing brains in ways yet unknown. In addition, a narrow biological view can obscure the power of parent-child relationships. When we work only from the brain side, children lose the chance to make sense of their emotional life, and to develop their minds through hard work. Parents lose the chance to take pride in facilitating their development. These are heavy losses.

Of course, the body and mind are one. Our emotional struggles can be addressed from the perspective of brain or of mind, and these approaches need not be mutually exclusive. In psychotherapy, we sometimes need the support of medication. However, our culture's present saturation with biological psychiatry makes us forget the mind. We have a choice. Do we see ourselves as only neurotransmitters and brain disorders? Or do we remember that we are also minds with the precious human capacity to develop through self-knowledge? Of this choice, our children need us to remain mindful.

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