



HEALTH MATTERS

Research On The Brain Unveils The Life Of The Mind

(NAPSA)—Advances in neuroscience and the behavioral sciences are changing what people have always believed about the development of the brain and how it contributes to who we are—and how we treat mental illness.

At birth, a child's brain is a work in progress. The initial framework with the capacity for joy, happiness, shyness, and fear is laid down in development, determined by "nature" or the genetic blueprints from the parents.

From there, the structure of the brain is shaped by nurture and early experience. Experience can enhance or reduce the mental and emotional capacities in the framework.

For example, infants and toddlers who are cuddled by loving adults develop differently in emotion, memory, and trust than those who are raised in less nurturing environments. Both nature and nurture have a powerful say in function.

"Our understanding of the developing human is very different today than how we have conceptualized its growth and development in the past," said Bennett I. Bertenthal, PhD, Professor of Psychology and Computational Neuroscience at the University of Chicago. "Biological determinants influence and shape the human,

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The findings to date are "extremely humbling," said Dr. Bertenthal. "We are beginning to see just how extraordinarily complicated the brain is and how hard it will be to truly understand how to intervene and improve the quality of life," he said.

Just as the string, woodwind, and brass sections function separately within the orchestra, and also share in the final melody, the brain functions as both a modular system with certain regions of the brain responsible for certain functions and an interconnected network with shared interactions, observed Cary R. Savage, PhD, Director, Cognitive Neuroscience Group, Massachusetts General Hospital.

"The specifics of how 'the

Brain' and what we know as 'the Mind' work together may not be entirely mapped out yet, but it is clear they do. There will be momentous clinical applications of the understanding of this link," said Cynthia M. Watson, MD, who is a private family medical practitioner as well as Clinical Preceptor, UCLA Department of Family Medicine.

She agreed about the usefulness of diagnostic tools to "guide us to early intervention and treatment and perhaps even prevention of certain disease in the future. Now by the time we know what the person has the brain has often deteriorated to such an extent that there is little to be done. As a primary care doctor, who is growing old with her parents, I am encouraged by the coming developments in approaching certain debilitating diseases."

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