

# THE IMPACT OF PSYCHOSOCIAL FACTORS ON DEVELOPMENT

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## Summary

Psychiatry has a long history of using a biopsychosocial framework for understanding the human condition. While much of the current focus within the discipline is on unraveling the biological elements of human behavior, emotion, and cognition, we must not lose sight of the importance of the psychosocial variables that play a critical role in influencing psychological development. The totality of the environment—from the microenvironment of the womb, to the family environment, to the larger societal macroenvironment—is involved in shaping development. With this knowledge, it behooves us to do all that we possibly can to create the best possible opportunities to enhance the development of all children. It will take the presence of strong community-based leadership to build healthy neighborhoods within which families will have a better chance of raising mentally healthy children. And governmental organizations must have the political will to provide their citizens with the basic psychosocial supports that facilitate the formation of healthy families, and mediate healthy psychological development for all.

## 1. Introduction

The last two decades of the twentieth century focused on biological psychiatry, perhaps minimizing the role of psychosocial factors on psychological development. The explosion of neuroscience and genetic research revealed much information about the biological underpinnings of psychiatric disorders, and led to the development of biological interventions as a major part of psychiatric treatment. However, the biological research has also revealed that the environment plays an important role in the expression of the inherited traits in a given person. Now, instead of continuing the old debate about nature versus nurture, we must understand how nature and nurture interact

in development. At best, we can state that with any biological predisposition, the environment of the home in which a child is raised, and the larger social environment outside of the home, all influence the development of that child. This article will identify critical factors that influence development and will provide some recommendations targeted towards populations rather than towards individuals.

## 2. Environment and Genes

It is now accepted in the scientific community that our environment shapes the expression of our genes and that specific experiences of interactions with the environment affect the laying down of the neural circuitry of the developing brain. Cravioto and Arrieta address this issue in their discussion of malnutrition in childhood: Heredity and environment do not summate as additive combinations; rather, the quantitative effect of either one is dependent on and interacts with the contribution given by the other factor . . . Accordingly, mental growth would be modified to the degree to which conditions of life associated with depressed social position function directly to modify the growth and differentiation of the central nervous system and indirectly to affect the opportunity for obtaining, and the motives for profiting from, experience.

In his brilliant article recommending a new framework for integrative psychiatry, Eric Kandel, an American psychiatric researcher and Nobel prize winner, discussed the critical role of the environment in influencing brain development and summarized his conclusion as follows: This distinctive modification of brain architecture along with a unique genetic makeup, constitutes the biological basis for individuality.

Kandel further discussed the concept of the transcriptional function of genes, which refers to the job genes have to produce proteins that direct the expression of the genes in the context of environment. Kandel concluded that this function is, in fact, highly regulated, and this regulation is responsive to environmental factors.

Twin and adoption studies have provided sound scientific evidence to support the impact of environment in development. Reiss and his colleagues have posited that it is the combination of genetic factors, shared environment, and nonshared environments that influence psychological development in siblings. The *shared environment* refers to the environmental factors that were the same for all siblings (e.g. socioeconomic and cultural factors, the same parents, the same community, religion etc.). The *nonshared environment* refers to children's unique interactions with their parent(s), other siblings, other family members, authority figures, peers, etc. Additionally, the nonshared environment includes children's own perceptions and interpretations of events in their environment (see *Developmental Psychology: Main Problems and Modern Tendencies*). The groupings that Reiss and his colleagues used for study and analysis were (i) monozygotic twins who share the same genetic pool, (ii) genetically unrelated step-siblings who shared the same environment, and (iii) twins raised apart who had the same genetic endowment, but not the same shared environment.

The authors refer to the heritability/environment equation, and describe a developmental trajectory in which parents matter most during childhood: "We have found that the

family's response to heritable characteristics in its members allows the expression of a range of genetic influences." Peers' influence becomes important during adolescence and spouses gain significance in adulthood. Their research on adolescent development showed that the genetic and nonshared environments were the most important in accounting for differences in siblings' psychological attributes. An interesting finding was that while some genetic factors played an important role in early adolescence, their specific influence waned, and was replaced by other genetic factors, in later adolescence. This finding definitely argues for the concept of critical periods, and the need to take a developmental perspective in understanding personality development. The authors concluded that the nonshared factors had most influence on most domains of adolescent functioning, and that the psychoanalytic perspective, which takes into account the individual's perspective and interpretation of events, can best explain the influence of the nonshared environment.

Studies have shown that children who received more warmth and acceptance from their mothers were less likely to have behavioral problems and had more self-esteem, and that children who were harshly punished were more likely to experience more aggression towards themselves and others. Recent findings in brain research indicate that traumatic childhood experiences actually alter individuals' brain structure and functioning, prompting individuals to react to some otherwise normal events as if they herald reenacting of the trauma. One physically abused child known to this author had been suspended from the school bus because of hitting a bus aide. While exploring with him what had happened to lead up to his action, he said, "She looked at me!" With further probing, he revealed that the manner in which the bus aide looked at him had reminded him of how his mother would look at him just before physically abusing him. This case validates the statement by Reiss and colleagues that physical or sexual abuse influence a child's ability to decode social cues accurately and react appropriately.

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### **Biographical Sketch**

**Dr. Marilyn Benoit** is a board-certified child and adolescent psychiatrist and a board-certified adult psychiatrist. She is a Fellow of the American Academy of Child and Adolescent Psychiatry and in October 2001 became the president of this academy (with a membership of 6500 child and adolescent psychiatrists). She has had a distinguished career in academic psychiatry. Presently she is on the faculties of Georgetown and Howard University Medical Schools in Washington, D.C., where she also has a private practice, and is an active advocate for children by serving on many national committees.