

# **Lifespan Development: Multiple Perspectives**

A. Ardila

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*The Lifespan Development of Individuals: Behavioral, Neurobiological, and Psychosocial Perspectives*, D. Magnusson (Ed.). 1996. New York: Cambridge University Press. 526 pp., \$95.00.

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The preface to this book explained that each year the Swedish Nobel Foundation selects, among a number of applications, two or three symposia to be organized as Nobel symposia. This book emanates from the symposium that was held at Sodergarn Conference Center, Stockholm, June 1994. Following an introductory chapter, which puts the rest of the book into an evolutionary perspective, the contributions are organized in six parts, ranging from "Early Development" to "Aging."

Part I includes three chapters plus a commentary. In the first chapter (Chapter 2), D.M. O'Leary examines the regional specialization of the developing cortex, with emphasis on developmental plasticity and genetic specification. Chapter 3, by J.C. Loehlin, reviews the interrelationships between genes and environment. Twin studies are especially considered. The author concludes that the genetic contribution to behavioral differences expands during individual development. O. Reynolds, in Chapter 4, discusses the main causes and outcomes of perinatal brain injury: periventricular hemorrhage, periventricular leucomania, and birth asphyxia. In the commentary section, G. Gottlieb provides a historical review of different interpretations of psychobiological development along with some comments on previous chapters.

Part II ("The Changing Brain") includes three chapters: "Neurotransmitter Receptors in the Changing Brain" by J.P. Changeux, "Learning, Memory and Synaptic Plasticity" by R.G. Morris, and finally, an analysis of relationships between brain size, behavior, and neural space (D. Purves and colleagues). A commentary section is offered by G.M. Edelman and G. Tononi.

Part III begins with F.E. Weinert and J. Perner's review of cognitive development and individual differences. In the next chapter, Williams syndrome is considered by U. Bellugi, E.S. Klima, and P.P. Wang in order to illustrate the dissociation between spatial and verbal abilities: here verbal abilities are spared, while spatial abilities are impaired. Finally, W. Klein examines language development. Comments by A. Damasio and H. Damasio at the end of this part present some contemporary issues in cognitive neuroscience, with emphasis in theoretical developments.

In Part IV ("Biology and Socialization"), R.B. Cairns, R.W. Goy, and R.A. Gorski examine socialization, with emphasis in hormonal influence. In Part V, R.A. Hinde, J. Kagan, and M. Rutter analyze social competence. Interrelations between biology and culture are evaluated in the initial chapter, and social behavior and psychopathology are further considered.

The psychology of aging is the topic of P.B. Baltes and P. Graf's initial chapter in the final section. The last two chapters on aging are written by J. Hardy, and D.G.

Morgan and M.N. Gordon respectively. In the commentary section some conclusions about biological and psychological aspects of aging are presented by C.E. Finch.

The book integrates facts and theories about lifespan development. Even though the book emphasizes the genetic and biological aspects of development, neuropsychologists can find Part II's discussion of cognition and development especially interesting. However, a neuropsychological perspective of lifespan development is not presented.

The book is informative and well illustrated. It can be useful as a reference book. The commentary sections at the end of each part are most interesting, even though they are not always well articulated with the rest of the papers. Too many topics are included and, necessarily, the chapters are short and not as detailed as one might wish. However, it has to be kept in mind that this book is a collection of papers presented in a symposium.

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