

DEVELOPMENTAL PSYCHOLOGY

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Summary

Developmental psychology is a branch of modern psychology that studies the ontogenetic development of individual human beings, which includes all stages of development from the prenatal until old age and death. There have been two major discussions in the theoretical issues of human development: 1) the interplay between biological inheritance and social environment, and 2) whether psychological development is continuous (quantitative) or discontinuous (qualitative). The longitudinal and cross-sectional methods are two preferred designs in the study of human development, but, combining the advantages of both, a cross-design paradigm has been proposed.

The study of human development started with John Locke in England and Jean-Jacques Rousseau in France. Other influential contributors to the field were Charles Darwin, Wilhelm Preyer, G. Stanley Hall, Louis W. Stern, Karl and Charlotte Buhler, Alfred Binet, Lewis Terman, Sigmund Freud, John B. Watson, B.F. Skinner, Albert Bandura, Arnold Gesell, Jean Piaget, Eric Erikson, and Lev Vygotsky. The major theories that have shaped developmental psychology are psychoanalysis (Freud), behaviorism (Watson), genetic epistemology (Piaget), and the theory of the historical-cultural developmental process of the mind (Vygotsky).

The current areas of research in developmental psychology are 1) life-span development, 2) developmental system theory and theory of developmental biology, 3) developmental behavioral genetics and research into cognitive neuroscience, and 4) applied developmental psychology. In the future, along with more cooperation with

relevant disciplines, especially developmental biology, the new issues pertinent to applied developmental psychology will emerge and certainly stimulate thinking about human development.

1. Introduction

By definition, living involves being in constant development. Developmental psychology is interested in the scientific study of ontogenetic development, that is, all stages of development from the prenatal until old age and death. It probes the fundamental theories of growth and development as well as the psychological functions involved in the process of development. In the past, researchers were primarily interested in the developmental stages of childhood and adolescence. This particular field of developmental psychology has typically been termed “child psychology.” In essence, developmental psychology as we know it today emerged from child psychology. Today, child psychology is considered only one of many aspects of developmental psychology (see *Developmental Psychology: Main Problems and Modern Tendencies*).

Two major discussions have always been of concern to theories of human development. The first is the interplay between biological inheritance and social environment: in other words, the nature versus nurture controversy (see *Psycho-Genetics and Genetic Influences on Behavior*). In the past, theorists typically held oppositional views, arguing that development is determined either solely by innate factors such as genetic inheritance and physiological maturation or by environmental factors such as nurturing and learning. Today, few are extreme believers in either genetic inheritance or environment. In fact, theorists agree that both factors are important and that they function interactively to determine individual psychological development. Contemporary discussions now focus on the functions as well as on the relative contributions that genetic predisposition and social environment may exert on psychological development. The second discussion is whether psychological development is continuous or discontinuous. The issues are whether psychological development reflects quantitative or qualitative changes, whether all individuals move through common stages of psychological development, and whether children’s mental functions are qualitatively different from that of adults. In essence, the proponents of both major theoretical areas in developmental psychology have generated their own views.

Developmental psychology is interested in the scientific study of sensory and motor development as well as in cognitive, linguistic, emotional, and social development. Cognitive development and social development have been at the forefront of theory and research. Jean Piaget’s genetic epistemology and information processing theories have inspired many studies on children’s perception of the outside world as well as children’s cognitive and socialization processes. Socialization involves individual learning of socially acceptable behaviors and moral standards, acquisition of social experience, the formation of values and beliefs, as well as the development of personality and identity of individuals as independent members of society. Frequently studied topics in social development and socialization include pro-social behaviors, anti-social behaviors, sexual roles, self-consciousness, identity, moral development, family influences, peer

pressures, and the effects of mass media on child and adolescent psychological development. Development is typically divided into stages: infancy, childhood, adolescence, adulthood, and late adulthood. Research on infant and childhood psychological development has always received much attention. Only in the last quarter of the twentieth century has the process of aging started to receive special attention, sparking much research on the psychological development inherent to late adulthood. In comparison, late young adulthood and adulthood have received little attention.

There are two preferred controlled observations designs used in developmental psychology: longitudinal and cross-sectional studies. In longitudinal studies, the same individuals are observed on several occasions over time. The major advantage of this approach is that it observes how specific individuals are developing over time. The changing relationship between earlier and later stages can thus be rather precisely defined. Nevertheless, longitudinal studies have disadvantages: they take decades to complete and data can be subject to error and contamination as individual participants are susceptible to the effects of learning and repeated exposure to the experimental methodology. Cross-sectional studies observe individuals of different age groups simultaneously at a particular time. This method can thus gather developmental data from different age groups in a relatively short period of time. An important drawback is that the developmental data do not come from the same individuals. Hence, conclusions may not adequately reflect the true processes involved in individuals' psychological development over time. In essence, both methods have their advantages and limitations. A limitation of both methods is generational differences caused by the simple effect of time: developmental changes that are attributable to different historical backgrounds are confounded with those attributable to normal aging, thus rendering generational differences vulnerable to being mistakenly interpreted as individual developmental changes.

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Biographical Sketches

Houcan Zhang was born in Beijing, China. After graduating from Fu-jen University, Beijing, in 1948, she was promoted to lecturer (equivalent to Ph.D. degree) in 1952, and was made chair of the Department of Psychology, Beijing Normal University.

Dr. Zhang is professor of psychology and a member of the University Administration Board of Beijing Normal University. She is adjunct professor of Jiangxi Normal University and deputy chair of the Educational Testing Research Association, Ministry of Education, China. She is a member of the Standing Committee of the Chinese Psychological Society. She is currently vice president of the International Union of Psychological Science (IUPsyS). Professor Zhang has been president of the National Association of Educational Measurement and Statistics; director of the Educational Psychology Division of the National Steering Committee of Educational Science; and vice president of the Chinese Psychological Society. Professor Zhang was a visiting scholar at the University of Pittsburgh (1981–1982); visiting scholar at the University of Michigan (1986–1987) and the University of Illinois, Champaign-Urbana, USA. She has been adjunct professor of Peking University and Hangzhou University. She was a council member of the International Test Commission (1990–1994), and a member of the executive committee of IUPsyS (1996–2000).

Aside from academic roles, Professor Zhang is a counselor of the State Council of the People's Republic of China, and a member of the Chinese People's Political Consultative Conference, serving in the capacity of senior adviser on China's education policy. Dr. Zhang was awarded first prize by the National Educational Council for her research on higher education examination reform (1990); the Zeng Xianzi Higher Educational Teaching Award (1993); the title of Distinguished Woman of Beijing (1985); and the title of Distinguished Personality of the City of Beijing (1995).

Professor Zhang is active both in Chinese psychology and in international psychology, and has wide interests in general experimental psychology, human cognition, and educational and psychological measurement. Her publications include more than 80 articles and 10 books. Her books *Statistics Applied to Psychology* (1987) and *Experimental Psychology* (1982) received awards from the Ministry of Education of China.

Xiaochun Miao is professor of psychology, East China Normal University. He was born in Shanghai, China, and graduated from the Department of Education, East China Normal University, in 1957. In

1957, Professor Miao was appointed assistant lecturer, Department of Education, East China Normal University; from 1964, he was lecturer, associate professor, and then professor, Department of Psychology, East China Normal University. Professor Miao was a visiting scholar with the Department of Psychology, Teachers College, Columbia University, USA (1980–1981) and a visiting scholar with the Department of Psychology, University of California at Berkeley, USA (1981–1982). He has been chairman of the Department of Psychology, East China Normal University; and associate editor of the journal *Psychological Science*.

Professor Miao is a member of the Standing Committee and vice chairman of the Committee on Developmental Psychology, Chinese Psychological Society. He is member of the International Society for the Study of Behavioral Development and consulting editor of the *International Journal of Psychology*. His published articles and chapters in books include “Word order and semantic strategies in Chinese sentence comprehension” (1981), “Language development in Chinese children” (1992), “Reading education in China” (1992), “The comprehension of Chinese idioms” (1994), “Sentence understanding in Chinese” (1999), and “Developmental psychology in China” and “A review of Chinese developmental psychology in the last twenty years” (2001).

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