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Life Span Approach to Growth and Human Development: A Broad General Overview of the Model

J. O. Okojie and Stanley Aibieyi
Psychology and Organizational Behaviour, University of Benin,
Institute of Public Administration and Extension Services, Benin City,
Nigeria.
E-Mail:Joel_Okojie@Yahoo.Com.,
Institute Of Public Administration and Extension Services,
P.M. B. No 1154, Benin City, Nigeria.
E-Mail:Saibieyi@Yahoo.Com

ABSTRACT

The traditional approach to the study of development emphasizes extensive change in childhood. But today, it is no longer fashionable to study development within this narrow confine of framework without reference to the theoretical approach that asserts that growth and development begins at conception and continues throughout life. This perspective which is known as the life span perspective, is chronicled in this article. In doing so, it takes a bird's eye-view of some of the critical aspects of this approach and posits that the life-span model is inter alia, multidirectional; development is life long, multidimensional, plastic, multidisciplinary and contextual. Moreover, the paper holds that amongst other things, the life span approach helps us to gain an understanding of our own history, as an infant, a child, an adolescent or a young adult – Finally, the paper draws the reader's attention to the fact that by adopting the life-span perspective, we gain insights into what our lives will be like as we grow into middle age or old age, who we are, how we came to be this way and where our future will take us.

INTRODUCTION

Development is the pattern of change that begins at conception and continues throughout the human life span. It is important to know that most development involves growth, albeit, it also includes decline brought on by ageing and dying. Life-span development is linked with many different areas of psychology, neuroscience, cognitive psychology, abnormal psychology, social psychology and virtually all other areas of psychology explore how people develop in these areas.

The Historical Perspective

Interest in the development of children has a long and rich history, but interest in adults began to develop seriously only in the latter half of the twentieth century. Prior to that time, the number of people living into their sixties and seventies was small compared with the rest of the population, and development was considered to be something that happened only during childhood. Although child development is important, a complete view of development now requires that we also consider developmental changes in the adult years. In this section, we will look briefly at how the prevailing view of children and adults has changed.

Child Development

Ideas about childhood have varied. Throughout history, philosophers have speculated about the nature of children and how they should be reared. In the west, three influential philosophical views are based on the ideas of original sin, tablula rasa and innate goodness:

- According to the Christian doctrine of original sin, children are born into the world corrupted, with an inclination towards evil. The goal of child rearing is to save children from sin.
- Towards the end o the seventeenth century, English philosopher John Locke proposed that at birth each child is a tabula rasa – a "blank tablet; Locke proposed that people acquire their characteristics through experience and the childhood experience are important to determining adult characteristics. He advised parents to spend time with their children and help them become contributing members of society.
- In the eighteenth century, the concept of innate goodness was presented by Swiss-born French philosopher Jean-Jacques Rousseau. He stressed that children are inherently good. As a result. Rousseau said that they should be permitted to grow naturally with little parental monitoring or constraint.

These conflicting views formed the historical backdrop for the study of childhood and for child-rearing practices. Today, we conceive of childhood as a highly eventful and unique period of life that lays an important foundation for the adult years and is highly differentiated from them (Pittman and Diversi, 2003). Most approaches to childhood identify distinct periods in which special skills are mastered and new life tasks are confronted. We now value childhood as a special time of growth and change, and we invest great resources in caring for and educating our children. That investment includes creating government provisions for helping them when ordinary family support systems fail or when families seriously endanger the child's well-being. (Crouter & Booth, 2004).

Life–Span Development

The traditional approach to the study of development emphasizes extensive change from birth to adolescence (especially during infancy), little or no change in adulthood, and decline in old age. In contrast, the life-span approach emphasizes developmental change throughout adulthood as well as childhood (Birren and Schaie, 2001; Nussbaum and Coupland, 2004; Overton. 2003).

Recent changes in human life expectancy have changed the way life-span development is viewed. Although it took 5,000 years to extend human life expectancy from 18 to 41 years of age, in the twentieth century alone, life expectancy increased by 30 years, thanks to improvements in sanitation, nutrition, and medicine. Today, for most individuals in developed countries, childhood and adolescence represent only about one-fourth of the life span (Schaie and Willis, 2002)

There is a dramatic increase in the over 65 age group since 1900 and projects continued increase through 2040. A significant increase also will occur in the number of individuals in the 85- and-over and in the 100 and over age categories. In 2000, there were 77,000 American centenarians (persons 100 years of age or older), and this number is projected to increase to more than 800,000 in 2050. For instance baby girl born in the United States today has a 1-in-3 chance of living to be 100 years of age.

Although we are living longer, on the average, than we did in the past, the maximum life span of humans has not changed since the beginning of recorded history. The upper boundary of the life span (based on the oldest age documented) is 122 years, and as indicated by researchers our only competition from other species for the maximum recorded life span is the Galapagosturtle.

For too long we believed that development was something that happened only to children. To be sure, growth and development are dramatic in the first two decades of life, but a great deal of change goes on in the next five or six (or seven or eight) decades of life. Consider these descriptions of adult development:

"The next five or six decades are every bit as important, not only to those adults who are passing through them but to their children, who must live with and understand parents and grandparents. The changes in body, personality, and abilities through these later decades are great. Developmental tasks are imposed by marriage and parenthood, by the waxing and waning of physical prowess and of some intellectual capacities, by the children's flight from the nest, by the achievement of an occupational plateau, and by retirement and the prospect of final extinction (Sears and Feldman. 1973, pp v-vi)"

As the older population continues to increase in the twenty-first century, the increasing number of older adults who will be without either a spouse or children (traditionally the main sources of support for older adults) has become a cause for concern (Bennett, 2004; Berado, 2003; Bonanno, Wortman, and Nesse, 2004). In recent decades. American adults are less

likely to be married, more likely to be childless, and more likely to be living alone than earlier in the twentieth century. As these individuals become older, they will have even greater need for social relationships, networks and supports.

Characteristics Of The Life-Span Perspective

The belief that development occurs throughout life is central to the life-span perspective, but according to life-span development expert Paul Baltes (1987, 2000, 2003), the life-span perspective should be thought of as lifelong, multidimensional, multidirectional, plastic, multidisciplinary, and contextual, and involves growth, maintenance and regulation. Let's look at each of these concepts.

Development is life long: In the life span perspective, early adulthood is not the endpoint of development; rather, no age period dominates development, researchers increasingly study the experiences and psychological orientations of adults at different points in their lives.

Development is multidimensional: Development consists of biological, cognitive, and socio-emotional dimensions. Even within a dimension, such as intelligence, there are many components, such as abstract intelligence, nonverbal intelligence, and social intelligence.

Development is multidirectional: Throughout life some dimensions or components of a dimension expand and others shrink. In language development, when one language (such as English) is acquired early in development, the capacity for acquiring second and third languages (such as French and Spanish), decreases later in development, especially after early childhood (Levelt, 1989). In socio-emotional development, individuals begin to have more contact with opposite-sex peers during adolescence. As they establish emotional or sexual relationships, their relationships with friends might decrease. In cognitive development, older adults might become wiser by being able to call on experience to guide their intellectual decision making (Baltes and Kunzmann, 2003). However, they perform more poorly on tasks that require speed in processing information (Li and others, 2004; Madden, 2001; Salthouse, 2000).

Development is plastic: A key developmental research agenda is the search for plasticity and its constraints (Kagan and Herschkowitz, 2005; Maurer, 2001; Prickaerts and others, 2004). Plasticity means the capacity for change. For example, can intellectual skills still be improved through education for individuals in their seventies or eighties? Or might these intellectual skills be fixed by the time people are in their thirties so that further improvement is impossible? In one research study, the reasoning abilities of older adults were improved through retraining (Willis and Schaie, 1994). However,

developmentalists debate how much plasticity people have at different points in their development; possibly we posses less capacity for change when we become old (Baltes, 2003; Baltes and Smith, 2003; Singer, Lindenberger, and Baltes, 2003.

Development is multidisciplinary: Psychologists, sociologists, anthropologists, neuroscientists, and medical researchers all study human development and share an interest in unlocking the mysteries of development through the life span. Research questions that cut across disciplines include:

- What constraints on intelligence are set by the individual's heredity and health status?
- How universal are cognitive and socio-emotional changes?
- How do environmental contexts influence intellectual development?

Development is contextual: The individual continually responds to and acts on contexts, which include a person's biological makeup, physical environment, cognitive processes, historical contexts, social contexts, and cultural contexts. The contextual view regards individuals as changing beings in a changing world. Baltes and other life-span developmentalists, (Baltes, 2000, Schaie and Willis, 2002) argue that three important sources of contextual influences are (1) normative age-graded influences (2) normative history-graded influences, and (3) non normative life events.

Normative age-graded influences are biological and environmental influences that are similar for individuals in a particular age group. These influences include biological processes such as puberty and menopause. They also include socio-cultural, environmental processes such as entry into formal education (usually at about age 6 in most cultures) and retirement (which takes place in the fifties and sixties in most western countries).

Normative history graded influences are common to people of a particular generation because of the historical circumstances they experience. Examples include economic impacts (such as the Great Depression in the 1930s), war (such as world war II in the 1940s and the Vienam war in the 1960s and 1970s), the changing role of women, the current technology revolution, and political upheaval and change (such as the decrease in hard-line communism in the 1990s and into the twenty-first century) Modell and Elder, 2002).

Nonnormative life events are unusual occurrences that have a major impact on the individual's life and usually are not applicable to many people. Such events might include the death of a parent when a child is young, pregnancy in early adolescence, a disaster (such as a fire that destroys a home), or an accident. Nonnormatie life events also can include positive events (such as winning the lottery or getting an unexpected career opportunity with special privileges).

Development involves Growth, Maintenance, and Regulation

Baltes and his colleagues (Baltes, 2003; Baltes, Staudinger, and Lindenberger, 1999; Krampe and Baltes, 2003) assert that the mastery of life often involves conflicts and competition among three goals of human development; growth, maintenance, and regulation. As individuals age into middle and late adulthood, the maintenance and regulation of their capacities takes centre stage away from growth. Thus, for many individuals, the goal is not to seek growth in intellectual capacities (such as memory) or physical capacities (such as physical strength), but to maintain those skills or minimize their deterioration.

Some Contemporary Concerns

Earlier in this paper, we examined life-span development from a historical perspective. The life-span perspective also addresses a number of contemporary concerns from infancy through old age. Let us consider some of the topics we read about every day in newspapers and magazines: gene research, child abuse, mental retardation, parenting, intelligence, career changes, divorce, addiction and recovery, the increasing ethnic minority population, gender issues, homosexuality, midlife crises, stress and health, retirement, and aging. What life-span experts are discovering in each of these areas influences our understanding of children and adults and informs our decisions as a society about how they should be treated.

The roles that health and well-being, parenting, education, and socio-cultural contexts play in life-span development, as well as their importance in social policy, are a particular focus of this reading. Here we will briefly preview these themes.

Health And Well-Being

Health and well being have been important goals for just about everyone for most of human history, Asian physicians in 2600 B.C. And Greek physicians in 500 B.C. recognized that good habits are essential for good health. They did not blame the gods for illness or think that magic would cure it – they realized that people have some control over their health and well-being. A physician's role became that of a guide, assisting patients to restore a natural-physical and emotional balance.

In the twenty-first century, we once again recognize the power of lifestyles and psychological states in health and well being (Blonna, 2005; Corbin and others, 2004; Robbins, Powers, and Burgess, 2005). In every part of this paper, issues of health and well being are integrated into our discussion of life span development.'

Some of the topics on health and well being are below:

- Drug and alcohol use during pregnancy
- Early intervention

- At-risk adolescents
- Women's health issues
- Addiction and recovery
- Loneliness
- Adaptive physical skills in ageing adults
- Coping with death

Clinical psychologists are among the health professionals who help people improve their well being. Some have a deep concern about helping adolescents who have become juvenile delinquents and/or substance abusers get their lives on track.

Socio-Cultural Contexts And Diversity

The tapestry of many cultures has changed dramatically in recent years. Nowhere is the change more dramatic than in the increasing diversity of America's citizens. The diversity occurs in terms of ethnicity, gender, sexual orientation, ability/disability, national origin, and religion. This changing demographic tapestry promises not only the richness that diversity produces, but also difficult challenges in extending the American dream to all individuals (Books, 2004; Fuligni and others, 2005; Poelmans, 2005).

Socio-cultural contexts include five important concepts: context, culture, ethnicity, socio-economic status (SES), and gender. A context is the setting in which development occurs. This setting is influenced by historical, economic, social and cultural factors. Contexts include families, schools, peer groups, churches, cities, neighbourhoods, university laboratories, countries, and many others. Each of these settings has meaningful historical, economic, social, and cultural legacies (Leyendecker and others, 2005; Matsumoto, 2004; Triandis, 2001; Yang, 2005).

Culture encompasses the behaviour patterns, beliefs, and all other products of a particular group of people that are passed on from generation to generation. Culture results from the interaction of people over many years. A cultural group can be as large as the United States or as small as an African hunter-gather group. Whatever its size, the group's culture influences the behaviour of its members (Saraswathi and Mistry, 2003). Cross-cultural studies involve a comparison of a culture with one or more other cultures. The comparison provides information about the degree to which development is similar, or universal, across cultures, or is instead culture specific. For example, the United States is an achievement oriented culture with a strong work ethic. However, cross cultural studies of American and Japanese children showed that Japanese children are better at mathematics, spend more time working on mathematics at school, and do more mathematics homework than American children (Stevenson, 1995, 2000). Some of this, that warrant discussion include:

- Child-Care policy around the world

- Vygotsky's socio-cultural cognitive theory
- Gender roles in Egypt and China
- Cross-cultural comparisons of secondary schools
- Marriage around the world
- Death and dying in different cultures

Ethnicity (the word ethnic comes from the Greek word for "nation') is rooted in cultural heritage, nationality characteristics, race, religion, and language. Not only does ethnic diversity exist within a culture such as found in the United States, Nigeria and other countries diversity also exists within each ethnic group. These groups include African Americans, Latinos, Asian Americans, Native Americans, Polish Americans, Italian Americans, and so on. Not all African Americans live in low income circumstances. Not all Latinos are Catholics. Not all Asian Americans are high school mathematics whizzes. It is easy to fall into the trap of stereotyping an ethnic group by thinking that all of its members are alike. A more accurate ethnic group portrayal is diversity (Jenkins and others, 2003; Koppelman and Goodhart, 2005; Powell and Caseau, 2004; Sheets, 2005).

Among the ethnicity topics that are usually studied are:

- Similarities, differences, and diversity
- Immigration
- Support systems for ethnic minority individuals
- Ethnicity and schooling
- Value conflicts
- Being old, female, and ethnic

Race and ethnicity are sometimes misrepresented. Race is a controversial classification of people according to real or imagined biological characteristics such as skin colour and blood group membership (Corsini, 1999). An individual's ethnicity can include his or her race but also many other characteristics. Thus, an individual might be white (a racial category) and a fifth-generation, Texan who is a catholic and speaks English and Spanish fluently.

Socioeconomic Status (SES) refers to the grouping of people with similar occupational, educational, and economic characteristics. Socioeconomic status implies certain inequalities. Generally, members of a society have (i) occupations that vary in prestige., and some individuals have more access than others to higher-status occupations;(2) different levels of educational attainment, and some individuals have more access than others to better education;(3) different economic resources; and (4) different levels of power to influence a community's institutions. These differences in the ability to control resources and to participate in society's rewards produce unequal opportunities for children.

Children who grow up in poverty represent a special concern (Bernstein, 2004; Books, 2004; Evans, 2004; Linver and others, 2004). In a review of

research, Jeanne Brooks-Gunn and her colleagues (2003) concluded that poverty in the first few years of life is a better predictor of school completion and achievement at 18 than poverty in the adolescent years. However, she also revealed that early intervention for two or three years does not permanently reduce socioeconomic disparities in children's achievement because poor children are likely to continue facing obstacles to success, such as schools that are not conducive to learning, neighbourhoods with high levels of violence, and unsafe play areas. Thus, intervention may need to continue beyond the early child years into the elementary school years and even adolescent years to improve the lives of children living in poverty. Other researchers are seeking ways to help families living in poverty improve their well-being (Blumenfeld and others, 2005; Clampet-Lundquist and others 2004; Evans 2004; Mcloyd, 2005; Perry-Jenkins, 2004).

Whereas sex refers to the biological dimension of being female or male, gender involves the psychological and socio-cultural dimensions of being female or male. Few aspects of our development are more central to our identity and social relationships than gender (Hyde, 2004; Lippa, 2005; Maracek and others, 2003; Matlin, 2004; Poelmans, 2005). Most societies attitudes about gender are changing. But how much? The gender-related topics mostly discussed include these:

- The Mother's role and the father's role
- Parental and peer roles in gender development
- Gender similarities and differences
- Femininity, masculinity, and androgyny
- Carol Gilligan's care perspective
- Gender communication patterns
- Family work
- Gender and ageing

Social Policy

Social policy is a national government's course of action designed to promote the welfare of its citizens. The shape and scope of social policy is strongly tied to the political system. Most countries' policy agenda and the welfare of the nation's citizens are influenced by the values held by individual lawmakers, by the nation's economic strengths and weaknesses, and by partisan politics.

Out of concern that policy makers are doing too little to protect the well-being of children and older adults, life-span researchers increasingly are undertaking studies that they hope will lead to effective social policy (Bernstein, 2004; Bogenschneider, 2002; Bornstein and Bradley, 2003). When more than 15 percent of all children and almost half of all ethnic minority children are being raised in poverty, when 40 to 50 percent of all children can expect to spend at least five years in a single-parent home, when children and young adolescents are becoming parents, when the use and

abuse of drugs is widespread, when the spectre of AIDS is present, and when the provision of health care for older adults is inadequate, most nations need revised social policy. Marian Wright Edelman, president of the children's defense fund, has been a tireless advocate of children's rights (Children's Defense fund, 2004). Especially troublesome to Edelman (1997) are the indicators of social neglect that place the United States at or near the lowest rank for industrialized nations in the treatment of children.

Edelman says that parenting and nurturing the next generation of children is our society's most important function and that we need to take it more seriously than we have in the past. She points out that we hear a lot from politicians about "family values," but that when we examine our nation's policies for families, they don't reflect the politicians' words.

The family policies of the United States for example, are overwhelmingly treatment-oriented: only those families and individuals who already have problems are eligible. Few preventive programmes are available on any widespread basis. For example, families in which the children are on the verge of being placed in foster care are eligible, and often required, to receive counseling; families in which problems are brewing but are not yet full-blown usually cannot qualify for public services. Most experts on family policy believe that more attention should be given to preventing family problems (Hawkins and Whiteman, 2004; Kalil and DeLeire, 2004).

At the other end of the life span, our ageing society and older persons' status in this many society raise policy issues about the well-being of older adults (Thompson, Robinson, and Beisecker, 2004). Special concerns are escalating. For instance Health-care costs and the access of older adults to adequate health care (Hill and others, 2002). One recent study found that the health-care system fails older adults in many areas (Wenger and others, 2003). For example, older adults received the recommended care for general medical conditions such as heart disease only 52 percent of the time. Appropriate care related to Alzheimer disease and undernutrition in older adults occurred only 31 percent of the time.

The need for social welfare resources far exceeds what policy makers have seen fit to provide. Then who should get the bulk of government money for improved well-being? Children? Their parents? Older adults? Generational inequity, a social policy concern in which an ageing society is being unfair to its younger members, occurs because older adults receive a disproportionately large allocation of resources in the form of entitlement programmes such as social security and medicare, generational inequity raises questions about whether the young should have to pay to care for the old and whether an "advantaged" older population is using up resources that should go to disadvantaged children. The argument is that older adults are advantaged because they have publicly financed pensions, health care, food stamps, housing subsidies, tax breaks, and other benefits that younger groups do not have. While the trend of greater services for older adults has been occurring, the percentage of children in poverty has been rising.

Bernice Neugarten (1988) says the problem should be viewed not as one of generational inequity, but rather as a major shortcoming of our broader economic and social policies. She suggests developing a spirit of support for improving the range of options for all people in all societies. Also, it is important to keep in mind that children will one day become older adults and will in turn be supported by the efforts of younger people (Williams and Nussbaum, 2001). If there were no social security system, many adult children would have to bear the burden of supporting their ageing parents and spend less of their resources on educating children.

CONCLUDING REMARKS

From the preceding discussion, it seems clear that the concept of growth and development has extended its frontiers from conception to the time we die in adulthood. As opposed to the traditional approach which emphasizes extensive change in adulthood, the life span model is eclectic, multidisciplinary, multidirectional, and so forth. It is important to state that although we are living longer on the average, than we did in the past, the maximum life span of humans has not changed since the beginning of recorded history. The upper boundary of the life span (based on the oldest age documented) is 122 years and as indicated by researchers, our only competition from other species for the maximum recorded life span is the Galapagosturtle. Furthermore, for too long, we had tended to believe that development was something that happened only to children. However, we should not lose sight of the fact that growth and development are dramatic in the first two decades of life. Also, it should be remembered that a great deal of change goes on in the next five or six (or even seven or eight) decades of life.

REFERENCES

Baltes, P. B., and Smith J. (2003) New Frontiers in the Future of Ageing: from Successful Ageing of the Young old to the Dilemmas of the fourth age. "Gerontology", 49, 123 – 135.

Baltes, P. B (1987) Theoretical Propositions of Life-Span Developmental Psychology on the Dynamics between Growth and Decline. "Developmental Psychology" 23, 611 – 626.

Baltes, P. B (2000) Life-Span Developmental Theory. In A Kazdin (ed), "Encyclopedia of Psychology. Washington, D. C and New York: American Psychological Association and Oxford University Press.

Baltes, P. B (2003) On the Incomplete Architecture of Human Antogony: Selection, Optimization, and Compensation as Foundation for

Developmental Theory in U.M Stavdmger and U. Lindenberger (eds) "Understanding Human Development" Boston, Kluwer

Baltes, P. B and Kunzmann V. (2003) Wisdom " Psychologist 16, 131 – 132.

Baltes, P. B. Standinger, V. M., and Lindenberger, U (1999) Lifespan Psychology: Theory and Application to Intellectual Functioning. "Annual Review of Psychology", 50, 471 – 507.

Bennett, K. M. (2004) Why did he die? The Attributions of cause of death among Widowed in later life: "Journal of Health Psychology, p, 345, 353.

Bernstein, J. (2004). The low-wage labour Market: Trends and Policy implications. In A. C. Crouter and A Booth (eds), "Work Family Challenges for low-income families and their children" Mahwah, NJ: Erlbaum.

Berado, F. M. (2003) Widowhood and its Implication. In C. D. Bryant (Ed), "Handbook of Death and Dying. Thousand Oaks, CA; Sage.

Birren, J.E., and Schaie, K. w. (eds) (2001) Handbook of the Psychology of Ageing". (5th ed) San Diego: Academy Press.

Blumenfeld, P.C, Modell, J., Bait Ko, T., Secade, J., Fredricks, J. Freedl J., and Paris, A. (2005). School engagement of inner city students during middle childhood. In C.R Cooper, C. T. G Call, W. T. Baftko, H. M. Davis and Co Chatman (eds) "Developmental pathways through middle childhood. Mahwah, NJ. Erlbaum.

Blonna, R. (2005) "Coping with Stress in a Changing World" (3rd ed). New York: McGraw – Hill.

Bonanno, G. A, Wortman,C. B., and Nesse, R. M. (2004) Prospective patterns of Vesilence and maladjustment during widowhood. "Psychology and Ageing" 19, 260 – 271.

Books, S. (2004) "Poverty and schooling in the U. S Mahwah, NJ. Frlbaum.

Bogenschnelder, K. (2002) Family Policy Matters Mahwah, NJ: Erlbaum.

Bornstein, M. H, and Bradley, R. H (eds) (2003) "Socioeconomic Status, Parenting, and Child Development" Mahwah, N: Erlbaum.

Brooks Gunn, J., Currie, J., Emide, R. E., and Zigler, E. (2003) Do you believe in magic? What we can expect from early childhood intervention programmes. SRCD "Social Policy Report" 17 (1) 3 – 15.

Children's Denfence Fund (2004) "State of Americas Children". Washington, DC: Author.

Corbin, C. B. Welk G. J., Lindsey R., and Corbin, W. R. (2004) "Concepts of Fitness and Wellness". (5th ed.) New York: McGraw-Hill

Crouter, A. C, and Booth, A (eds) (2004) Work –Family Challenges for Low-Incomes Families and their Children". Mahwah, NJ: Evlbaum

Corsini, R. J. (1999). "The Dictionary of Psychology" Philadelphia: Brunner/Maze.

Clampet-Lundquist, S., Edin, K., London, A, Scott, E. and Hunter, V. (2004). "Making a way out of no way": How mothers meet the basic family

needs while moving from welfare to work. In A. C Crouter and A. Booth (Eds), "Working challenges for low income families and their children." Mahwah, NJ: Erlbaum

Edelman, M. W. (1997 April) "Children, Families and Social Policy" Paper presented at the meeting of the society for Research in child development, Washington DC.

Evans, G. W. (2004). The Environment of childhood poverty "American Psychologist" 59, 77 – 92.

Hawkins, D. N. and White-Man, S. D. (2004) Balancing work and family: Problems and solutions with low-income families. In A. C. Crouter and A. Booth (eds) "work-family challenges for low-income parents and their children. Mahwah, NJ. Erblaum.

Hill, R. D. Thorn B. L. Bowling, J. and Morrison A. (eds) (2002)"Geriatric Residential Care" Mahwah, NJ: Erlbaum.

Hyde, J. S (2004) "Half the Human Experience" (5th ed) Boston: Houghton, Mifflin.

Linver, M. R., Fuiani, A. J. Hernandez, M., and Brooks –Gunn, J. (2004). Poverty and Child development in P. Allen-Meares and M. Fraser (Eds.) "Intervention with children and adolescents. Boston: Allyn and Bacon.

Lippa, R. A. (2005) "Gender, Nature and Nurture" (2nd Ed), Mahwah, Erilbaum.

Kagan, J. and Herschkowltz, N. (2005) "A Young Mind in a Growing Brain" Mahwah, NJ: Erlbaum

Kalil, A., and Deleire, T. (eds) (2004)" Family Investments in Children's Potential. Mahwah NJ: Erlbaum.

Krampe, R. T. and Baltes, P. B (2003). Intelligence as Adaptive Resources Development and Resource Allocation: A new look through the lens of Soc and expertise. In RJ Sternberg and E. L Grigorenko (eds) "Perspectives on the Psychology of Abilities, Competencies and Expertise" New York.

Levelt, W.J.M (1989) "Speaking: from intention to articulation" Cambridge, M. A MIT Press

Li, S. C. Hommel, B., Ascherskben G., Rinz, W., and Baltes, P. B. (2004) Transformations in the Couplings Among Intellectual abilities and Constituent Cognitive processes across the life-span "Psychological Science" 13, 155 – 163.

Madden, D. J. (2001) Speed and Timing Behavioural Processes. In J. E. Birren and K. W. Schaie (eds) "Handbook of the Psychology of Ageing" (5th ed) San Diego: Academic Press.

Margcek, J., Kimmel, E. B., Crawford, M. E., and Have –Muston, R. (2003). Psychology of women and gender. In I. B. Weiner (ed) "Handbook of Psychology" (vol. 1. New York. Wiley).

Mattin M. W. (2004) "The Psychology of women" (5th ed) Belmont, CA; Wads Worth

Maurer, D. (2001; April) "Variations in Plasticity in Visual Development" Paper Presented at the Meeting of the Society for Research in child Development, Minnea Polis.

McLoyd, V. C. (2005) Pathways to academic achievement among children from immigrant families: A commentary. In C. R. Cooper, C.T. G. Coll W. T. Barttlo, H. M. Davis and C. Chatman (eds) "Developmental Pathways through Middle Childhood". Mahwah, NJ. Evlbaum.

Modelt, J., and Elder G.H (2002) Child Development in History: So What's New? In W.W. Hartup and R. A. Weinberg (eds) "Child Psychology in Retrospect and Prospt" Mahwah, NJ: Erlbaum.

Neugarten, B. L. (1988 August)."Policy Issues for an Ageing Society" Paper Presented at the Meeting of the American Psychological Association, Atlanta.

Nussbaur, J. e. and Coupland, J. (eds) (2004) "Handbook of Communication and Ageing Research" Mahwah, NJ: Erlbaum.

Overton, W. F. (2003), Development Across the Life-Span. In I. B. Weiner (ed). "Handbook of Psychology (Vol. vi) New York: Wiley.

Parke, R. D., and Clark-Stewart, K. A. (2003) Developmental Psychology. In I. B. Wemer (ed), "Hand Book of Psychology" (vol. 1) New York" Wiley.

Perry–Jenkins, M. (2004) The Time and Timing of Work: Unique Challenges Facing low-income families In A. C. Crouter and A. Booth (eds) "Work Family Challenges for low-income families and their children" Mahwah, NJ: Erlbaum.

Poelmans, S.A.Y. (ed) (2005). "Work and Family" Mahwah, NJ" Erlbaum.

Prickaerts, J., Hoopmans, G. Blokland, A., and Scheepens, A (2004) Learning and Adult Neurogenesis: Survival with or without Proliferation? "Neurobiology of Learning and Memory". 81, 1-11.

Pttman, K., and Diversi, M. (2003) Social Policy for the 21st Century in R. Larson, B. Brown and Mortier (Eds), "Adolescents Preparation for the Future: Perits and Promise".

Robbins, G., Powers, D., and Burgess, S. (2005) "A Wellness Way of Life" (6th ed.) New York McGraw Hill.

Salthouse, T. A. (2000) Adulthood and Ageing: Cognitive Processes and Development in A. Kazdin (ed) "Encyclopedia of Psychology" Washington, D. C. and New York: American Psychological Association and Oxford University Press.

Santrock, J. W. (2000) Life Span Development tenth edition pp 5 –

Schaie, K. W., and Willis, S. (2002), "Adult Development and Ageing" (5th edition) Upper Saddle River, NJ; Prentice Hall.

Schaie, K. W. and Willis, S. (2002) "Adult Development and Ageing," (5th ed) upper Saddle River NJ: Prentice Hall

Singer, T., Lindenberger, U., and Baltes, P. B (2003) Plasticity of Memory for New Learning in very old age: six year Longitudinal findings in

the Berlin Ageing study (BASE) "Psychology and Ageing," 18 318 – 331.

Thompson, T. L., Robinson J. D, and Beiseker, A.T (2004) The Elderly Patient – Physician Interaction. In J. F. Nussbaum and J. Coupland (eds)" Handbook of Communication and Ageing Research" Mahwah N: Erlbaum.

Wenger, N. S. and Others (2003) The Quality of Medical Care Provided to vulnerable Community dwelling older patients. "Annals of Internal Medicine 139", 740 – 747.

Williams, A, and Nussbaum, J. F. (2001) "Intergenerational communication across the life span. Mahwah, NJ. Erlbaum.

Willis, S. L. and Schaie K. W. (1994) Assessing Everyday Competence in the elderly. In C. Fisher and Lerner (eds) "Life in the Middle: Psychological and Social Development in Middle age" SanDiego: Academic Press.