



Developmental psychology: Nature vs Nurture for Competitive Exams

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- The branch of psychology that studies how growth and physiological/ psychological/social changes take place over the life span also called Life-span Psychology; it is concerned with the changes in cognitive, motivational, and psycho physiological, and social functioning that occur throughout the human life span.
- During the 19th and early 20th centuries, developmental psychologists were concerned primarily with child psychology.

Development

- “The process of growth and differentiation”
- Development refers to the progressive changes in size, shape, and function during the life of an organism by which its genetic potentials (genotype) are translated into functioning mature systems (phenotype).
- Most modern philosophical outlooks would consider that development of some kind or other characterizes all things, in both the physical and biological worlds.

Human Development

- Biological sense: progressive change in size, shapes, and functions, of the body during the life span; the genetic potentials are translated into functioning adult systems
- Psychological sense: The ways by which physical, cognitive and psychosocial characteristics change over life span; such development is complex, systematic and age- related
- Developmental changes can be quantitative and easy to measure such as height and weight and the expansion of vocabulary
- Developmental changes can be qualitative i.e., changes in kinds that are more complex and involve “leaps” in functioning. These distinguish a crawling baby from a walking child, a nonverbal child from a talking child, self- absorbed adolescent from a mature adult
Psychological changes include the growth of:
 - Learning
 - Cognition
 - Intelligence
 - Emotional maturity

- Creativity
 - Sociability
 - Morality...and much more
- These small leaps are based upon small series of steps that we continue to take throughout our life span

Issues of Interest to Developmental Psychologists

Is development continuous or discontinuous?

- Some psychologists believed that human functioning does not undergo fundamental changes but instead changes gradually in its efficiency and working capacity; initially a child spoke a few words but gradually these words become longer and more complicated, increasing the child's ability to remember and use them in sentences.
- Other psychologists maintain that changes in development reflect psychological processes that mediate human functioning.
- These are qualitatively unique stages, in which the evolution of one stage may depend on the traits of the preceding stages. e.g. Roger Brown, psychologist, maintains that in the process of language acquisition, a child progresses systematically in five steps or stages.
- Each stage has its own set of rules and skills from which a higher level of language acquisition takes place. Jean Piaget maintained that cognitive development occurs in a series of steps in which the child acquires and uses unique sets of cognitive processes that allow the child to think in identifiable ways.

Is development general or specific?

- Many aspects of functioning show simultaneous changes; a co-occurrence of change in different situations.
- Changes occur in specific areas of functioning that do not occur in other level of functioning.
- Development may remain isolated in specific domains. e.g. Video game mastery in young boys

Is development stable or changing?

- In some respects development is stable and stays there for very long, whereas in some ways it keeps moving.
- Temporal aspect: degree of stability or change across the lifespan

- Situational aspect: degree of stability or change across a wide variety of experiences. e.g. Aggressive behavior in children

Human's active or passive beings?

- Psychologists maintain that humans are active recipients as well as participants in their course of development.
- Man seeks to understand the strategies that he can adopt in order to influence development
Jean Piaget emphasized the active participation of the child in acquiring cognitive skills___ acquisition of knowledge and ability to use it effectively.
- Some philosophers believed that humans are passive beings whose development is entirely dependent on the environmental stimuli/ forces. These conditions may be internal i.e. food, water, companionship etc or external i.e. previously experienced reward or punishment.
- These psychologists tend to view differences in the patterns of development in which an individual is exposed to different environmental situations

Nature Versus Nurture

- Nature means hereditary influences.
- Nurture refers to environmental influences, in child development.
- Once, it was assumed that these were significant forces that operated independently of each other.
- In the 17th century the French philosopher René Descartes set out views which held that people possess certain inborn ideas that are long lasting and color people's approach to the world.
- The British philosophers Thomas Hobbes and John Locke, on the other hand, took a more empirical approach and emphasized the role of experience as fully contributing to behavioral development.
- Since the days of Descartes, Hobbes, and Locke, the empirical "nature" approach has led to a lot of debate; many followers and many opponents.
- Mid to late 1800's, through to the early 1900's the nature approach was the sole standpoint; consistent with the scientific discoveries of the role of inheritance and natural selection by

Mendel and Darwin

- The psychological argument developed later; Francis Galton "Hereditary Genius" (1869); "gifted individuals" tended to come from families, which had other gifted individuals. He went on to analyze biographical dictionaries and encyclopedias, and became convinced that talent in science, professions, and the arts, ran in families.

- Galton went even further arguing that it would be "quite practicable to produce a high gifted race of men by judicious marriages during several consecutive generations".
- Eugenics: "the study of the agencies under social control that may improve or repair the racial qualities of future generations, either physically or mentally."

Studies to Determine the Relative Importance of Nature or Nurture

i. Twin Studies

- Studies making use of twins, identical or fraternal...reared apart and reared together
- The case of Gerald Levey and Mark Newman, twins reared apart, who had not seen each other before: When method, both were bald, 6 and a half feet tall, volunteer fire fighters, 250 pounds in weight, had droopy moustaches, wearing key rings on right side of their belts, liked to wear aviator style dark glasses; both had interest in similar subjects, had jobs in the supermarket, and liked tall, slender women with long hair; had similar hobbies, liked Chinese food and same drinks; showed similar mannerism, laugh similarly, and loved to fight fire.

Research on Nature- Nurture, Focusing on Environmental Issues

- Research looking for possible environmental causes for certain traits/ behaviors
- These include prenatal studies, and studies involving manipulation of the environmental factors e.g. nutrition, exercise, drugs, pollution etc
- These involve comparing actual history: surveys etc.

Limitations of Nature-Nurture Research

- Ethical considerations in research with humans
- Not all animal research can be applied to humans

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