

Programme : B. A

Subject : Psychology

Semester : 3

University : University of Mysore

Ethological Theories of Development

Konrad Lorenz's Ethological theory

Ethology emerged as an important view because of the work of European zoologists, especially Konrad Lorenz (1903-1989). Ethology stresses that behavior is strongly influenced by biology, is tied to evolution, and is characterized by critical or sensitive periods. The study of the behaviour of animals in their natural habitat, usually proposing evolutionary explanations. Ethology is concerned with the adaptive, or survival, value of behavior and its evolutionary history. Its roots can be traced to the work of Darwin. Two European Zoologists, Konrad Lorenz and Niko watching diverse animal species in their natural habitats, observed behavior patterns that promote survival.

Lorenz (1935) investigated the mechanisms of imprinting, where some species of animals form an attachment to the first large moving object that they meet. This process suggests that attachment is innate and programmed genetically.

He took a large clutch of goose eggs and kept them until they were about to hatch out. Half of the eggs were then placed under a goose mother, while Lorenz kept the other half hatched in an incubator, with Lorenz making sure he was the first moving object the newly hatched goslings encountered. The naturally hatched baby goslings followed their mother, while the incubator hatched ones follow Lorenz.

To ensure imprinting had occurred Lorenz put all the goslings together under an upturned box and allowed them to mix. When the box was removed the two groups separated to go to their respective 'mothers' - half to the goose, and half to Lorenz.

The best known of these is *imprinting*, the early following behavior of certain baby birds, such as geese, that ensures that the young will stay close to the mother and be fed and protected from danger. Imprinting takes place during an early, restricted time period of development. If the mother goose is not present during this time but an object resembling her in important features is, young goslings may imprint on it instead. Observations of imprinting led to a major concept in human development: the *critical period*. It refers to a limited time span during which the individual is biologically prepared to acquire certain adaptive behaviors but needs the support of an appropriately stimulating environment. Many researchers have conducted studies to find out whether complex cognitive and social behaviors must be learned during certain time periods. For example, if children are deprived of adequate food or physical and social stimulation during their early years, will their intelligence be impaired? If language is not mastered during early childhood, is the capacity to acquire it reduced?

The term *sensitive period* applies better to human development than does the strict notion of a critical period. A *sensitive period* is a time that is optimal for certain capacities to emerge and in which the individual is especially responsive to environmental influences. However, its boundaries are less, defined than are those of a critical period. Development may occur later, but it is harder to induce.

Imprinting does not appear to be active immediately after hatching, although there seems to be a critical period during which imprinting can occur.

Hess (1958) showed that although the imprinting process could occur as early as one hour after hatching, the strongest responses occurred between 12 and 17 hours after hatching, and that after 32 hours the response was unlikely to occur at all.

Imprinting has consequences, both for short-term survival, and in the longer term forming internal templates for later relationships. Imprinting occurs without any feeding taking place.

Lorenz and Hess believe that once imprinting has occurred, it cannot be reversed, nor can a gosling imprint on anything else.

Bowlby's Attachment Theory

Attachment theory in psychology originates with the seminal work of British psychoanalyst John Bowlby (1969), in the 1930s John Bowlby worked as a psychiatrist in a Child Guidance Clinic in London, where he treated many emotionally disturbed children. Child's relationship with their mother in terms of their social, emotional and cognitive development. According to Bowlby infants have a universal need to seek close proximity with their caregiver when under stress or threatened

John Bowlby (1969) argued that infant smiling, babbling, grasping, and crying are built-in social signals that encourage the parent to approach, care for, and interact with the baby. By keeping the mother near, these behaviors help ensure that the infant will be fed, protected from danger, and provided with the stimulation and affection necessary for healthy growth. The development of attachment in humans is a lengthy process involving changes in psychological structures that lead the baby to form a deep affectional tie with the caregiver. Bowlby (1979) believed that this bond has lifelong consequences, affecting relationships "from cradle to grave".

Observations by ethologists have shown that many aspects of social behavior, including emotional expressions, aggression, cooperation, and social play, resemble those of our primate relatives. Recently, researchers have extended this effort in a new area of research called evolutionary developmental psychology. It seeks to understand the adaptive value of species-wide cognitive, emotional, and social competencies as those competencies change with age.

Evolutionary psychologists are not just concerned with the biological basis of development. They are also interested in how individuals learn because learning lends flexibility and greater adaptiveness to behavior. The evolutionary selection benefits of

behavior are believed to be strongest in the first half of life-to ensure survival, reproduction, and effective parenting. As people age, social and cultural factors become increasingly important in generating and maintaining high levels of functioning.

Stages of Attachment

Babies are born equipped with behaviour like crying, cooing, babbling and smiling to ensure adult attention and adults are biologically programmed to respond to infant signal. He viewed the first 3 years are very sensitive period for attachment

The 4 phases of attachment

- ❖ Pre-attachment Phase (Birth to 6 weeks)
- ❖ Attachment in making Phase (6 weeks-6 to 8 Months)
- ❖ Clear cut Attachment Phase (6-8 months to 18 months-2 years)
- ❖ Formation of Reciprocal Relationship (18 months-2 years and on)

Fraley, (2010) research on Bowlby's theory of attachment showed that infants placed in an unfamiliar situation and separated from their parents will generally react in one of three ways upon reunion with the parents:

- Secure attachment: These infants showed distress upon separation but sought comfort and were easily comforted when the parents returned;
- Anxious-resistant attachment: A smaller portion of infants experienced greater levels of distress and, upon reuniting with the parents, seemed both to seek comfort and to attempt to "punish" the parents for leaving.
- Avoidant attachment: Infants in the third category showed no stress or minimal stress upon separation from the parents and either ignored the parents upon reuniting or actively avoided the parents.

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