

A second factor influencing individual motivation is curiosity. This is an individual factor because a person's curiosity can be aroused without involving other people. Curiosity is stimulated when something in the physical environment attracts our attention or when there is an optimal level of discrepancy between present knowledge or skills and what these could be if the learner engaged in some activity. Novelty and interest are good synonyms for the motivational use of curiosity.

There are two types of curiosity that can stimulate intrinsic motivation:

i) **Sensory curiosity** occurs when physical factors such as changes in tone of voice, light, or sound attract the attention of learners.

ii) **Cognitive curiosity**, on the other hand, is evoked when learners believe that it may be useful to modify existing cognitive structures.

Curiosity is defined as a need, thirst or desire for knowledge. The concept of curiosity is central to motivation. The term can be used as both a description of a specific behaviour as well as a hypothetical construct to explain the same behaviour. It is believed that curiosity is a motivational prerequisite for exploratory behaviour. The term curiosity is used both as a description of a specific behaviour as well as a hypothetical construct to explain the same behaviour. Exploration refers to all activities concerned with gathering information about the environment. This leads to the conflict and question of whether exploratory behaviour should be defined in terms of the movements that an animal or human performs while exploring or in terms of the goal or purpose of the behaviour observed.

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The feeling of *loss of control* is one of the most powerful *anti-motivating* factors in education. Drive theories differ on whether they view curiosity as a primary or secondary drive. Some research has shown that unsatisfied curiosity tends to intensify over some interval as do other drives such as hunger and thirst.

What makes people curious? Why do individuals explore the unknown? The research in these areas is inconclusive and often contradictory. Are curiosity and exploration motivations or drives? Can curiosity and exploration be operationally defined independent of one another? A clear distinction between these two may not always be possible.

Loewenstein (1994) points out four central

issues of curiosity:

- definition and dimensionality,
- cause,
- voluntary exposure to curiosity, and
- situational determinants.

He adds a fifth issue of superficiality and intensity since he states that curiosity can arise, change focus or end abruptly.

Loewenstein believed that despite its transience, curiosity can be a powerful motivational force. Langevin (1971) conducted research in the area of curiosity and classified measures of curiosity into two categories.

- i) Curiosity is viewed as a **motivational state** and measured with behavioural indices.
- ii) Curiosity is viewed as a **personality trait** that is assessed by personality measures.

It has been suggested that curiosity is not a unitary construct. At the conceptual level there are numerous definitions of curiosity which tend to encompass a broad range of characteristics. Fowler (1965) stated that boredom is generally a prerequisite for curiosity (exploration).

Several forms of curiosity related behaviour such as search behaviour, movement toward an unknown object and asking questions are included in the area of motivational psychology. However, curiosity does not fit well into the conceptual framework developed along the traditional pathways of behavioural sciences.

- i) The conception of an intrinsically motivated behavioural system, which cannot be linked to a reducible drive raises serious questions about motivational psychology since the 1950's.
- ii) The idea of curiosity was rediscovered when laboratory researchers wondered about the maze activities of the lab rat when none of the drive states such as thirst or hunger were aroused.
- iii) The curiosity phenomena cannot be investigated without reference to the natural environment of an individual.

Before 1950 curiosity was seen in the light of its social function as for example, the eagerness or greed to get to know something new for the sake of newness, and in early psychological literature the term curiosity had a negative connotation. The scientific term "curiosity" is more neutral.

William James (1890) pointed out to two kinds of curiosity.

- i) He emphasised the biological function of curiosity as a mechanism of instinct driven behaviour that serves in approaching new objects. Approach and exploration are described as being characteristic forms of behaviour.
- ii) The second kind of curiosity pointed out by James is "scientific curiosity" and "metaphysical wonder" with which "the practical instinctive root has probably nothing to do" rather "the philosophical brain responds to an inconsistency or a gap in its knowledge".

In the psychoanalytical literature Freud views curiosity as a derivative of the sex drive. The partial impulse of looking motivates the child's great interest in all things and all events that have to do with sexuality. Whereas the looking impulse and curiosity are primarily sexual in origin, the child's exploratory interest and desire for knowledge can be considered to be a by product of cognitive development. Due to social pressure, sexual exploration is later abandoned. Blarer proposed curiosity to be intrinsic to the individuals perceptions and world experiences and thus Blarer's view is the basis for the intrinsic motivation viewpoint in curiosity theory.

Curiosity and Culture

There is evidence for cross-cultural similarities in exploratory behaviour (Dragun, 1981). However, cultures generally vary both in attitudes towards exploration and information seeking as well as in the range of situations allowing the expression of the various manifestations of exploration and curiosity, this is especially true for the sensation seeking motive. Zuckerman (1994) defines sensation seeking as “the seeking of varied, novel, complex and intense sensations and experiences, and the willingness to take physical, social, legal, and financial risks for the sake of such experiences.” Berlyne also conducted research on cross cultural comparisons in the area of curiosity. His findings showed that there is a high similarity of demand characteristics of stimuli in two cultures of widely differing historical antecedents and technological development. Also, different cultures from various geographical regions show evidence for cross-cultural similarities in exploratory behaviour. More research is needed to study curiosity behaviour in its own cultural context to gain a better understanding of the functional relationships between various environmental and social facilitators and inhibitors of curiosity in a given society.

Children like to explore their environments without much encouragement from parents. The organisms are motivated to interact with new or novel objects and learn in the process. We must remember that interest in novel things diminishes with repeated exposure. Humans show a preference for complexity. Human exploratory behaviour is highly systematic with each individual becoming accustomed /habituated to a certain level of complexity he/she is motivated to explore stimuli that are slightly more complex. Interacting with stimuli in the environment increases competence or the ability to process information. We all are aware that animals explore to help ensure their survival and motivation is to know everything that might affect one's survival. Having new skills or competence, we discover new or different aspects of that object.

Level of arousal is basic mechanism underlying exploratory and play behaviours. Person experiencing low arousal will seek to increase arousal, whereas persons experiencing high arousal will seek to lower arousal. New information is governed by the ability of the new stimulus to elicit arousal. If there is greater discrepancy, there is also greater arousal and thus we can state that

Greater discrepancy = Greater arousal

Exploration is a person environment interaction in which the environment provides a challenge to the individual. The individual develops wide range of competencies. Exploration decreases or stops altogether when the individual is anxious. Emotional animals explore less but show that when they have been tamed, their tendency to explore increases.