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# UNIT 17 GESTALT AND COGNITIVE-FIELD PSYCHOLOGY OF LEARNING

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## 17.1 INTRODUCTION

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The second major family of contemporary learning theories is Gestalt-Field psychology, also called cognitive-field, which originated in Germany during the early part of 20th century. Its four leaders were Max Wertheimer (1880-1943), Wolf Gang Kohler (1887-1967), Kurt Koffka (1886-1941), and Kurt Lewin (1890-1947). Gestalt is a German word for which the closest English translation is an organized whole "configuration" or a "pattern".

In subsequent years other names such as organismic, field phenomenological and cognitive field psychology have evolved and become associated with gestalt-field psychology. The position of Gestalt psychology was formally stated by the German – Philosopher-psychologist – Max Wertheimer in 1912. The central idea behind his thinking was that an organised whole is greater than the sum of its parts. For example, a triangle is greater than the sum of the three line segments that form it. This is because of its gestalt. According to gestalt psychology learning phenomenon is closely related to perception, and, therefore, they define learning as reorganisation of the learner's perceptual or psychological world.

Gestalt psychology emerged as a reaction to mentalistic concepts advocated by Herbart and other traditional psychologists on one side and the molecular or atomistic approach to understanding of human behaviour as propounded by Watson, Thorndike, and others on the other. Wertheimer and other gestalters vehemently criticized the behaviouristic view that everything we see or think is an assemblage of tiny pieces like those of jigsaw puzzles. Instead they advocated that we see objects as wholes. They further advocated that our perception is meaningful when we perceive them as wholes rather than mere accumulation of sensations, images, or ideas. We learn not by associating bits of experiences but by forming new gestalts.

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## 17.2 OBJECTIVES

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After going through this unit, you should be able to:

- relate perception with learning;
- understand the different laws of perception and draw out their relationship with learning;
- explain the purpose and uses of cognitive-field psychology;
- draw the difference between cognitive field theories of learning and the S.R. theories;
- elucidate understanding of perception as a relativistic - interactional approach;
- identify and define the key constructs of cognitive field psychology with the help of diagram (s); and
- discuss learning as an insightful process.

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## 17.3 GESTALT PSYCHOLOGY AND LAWS OF PERCEPTION

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Wertheimer and his associates formulated a series of “laws”, called the laws of perception. These laws are identified by concepts *pragnanz*, *similarity*, *proximity*, *closure*, *good continuation*, and *membership character*. Law of *pragnanz* is in fact the basic law of perception which includes the other laws to explain it. According to the basic law of *pragnanz* if a perceptual field is disorganized, when a person first experiences it, he /she imposes an order on that field in a “predictable” way. The predictable way follows the remaining other five laws. *Similarity* means that similar items (dots for instance) tend to form a group in perception. *Proximity* means that perceptual groups are favoured according to nearness of their respective parts. *Closure* means that closed areas are perceptually more stable than unclosed ones. *Good continuation* is closely related to closure; it means that in perception one tends to continue straight lines as straight lines and curves as curves. According to the law of *membership character* a single part of a whole does not have fixed characteristics. It gets its characteristics from the context in which it appears. For example, a patch of colour in a painting derives its quality from the context – the surrounding picture pattern – rather than from anything inherent in itself. Similarly the behaviour of a child will be determined from the contexts he/she happens to be in. If the child is in the company of his/her peers, away from the influence of parents his/her behaviour will be different than when he/she is sitting on a dining table with other members of the family. The viewer while perceiving the field imposes an organisation that is characterized by stability, simplicity, regularity and symmetry.

Kohler and Koffka the other two colleagues of Wertheimer publicized the Gestalt psychology in United States. Kohler is known for his experiments on chimpanzees.

Through his celebrated study (*The Mentality of Apes* 1925), he set out to test Thorndike's hypothesis of trial and error - that learning is a matter of trial and error in which correct responses are gradually stamped in. *Kohler* observed that in addition to what may be called *incidental learning his apes displayed some kind of insightful learning*. *Koffka* (1924) in his book "The growth of Mind" criticized Thorndike's trial and error hypothesis and other ideas of behaviourism.

### 17.3.1 What is Perception?

In the 1950s the emphasis was on conditioning, particularly the operant conditioning. But as 1970s approached an increasing number of psychologists turned their attention to perception and memory again. These two categories represent the intake and the storage of information. Edward C. Carberette and Morton P. Friedman in their work "*Handbook of Perception*" give a comprehensive account of perception and related phenomenon.

Perception is a process through which the living organism maintains contact with the environment. This contact is maintained, in the case of humans, through complex system of sense organs and a muscular structure through which the sense organs can be directed to receive information from particular parts of the environment.

The essential features of perception can be demonstrated by a reader to himself/herself by leafing through the pages of an encyclopedia until a page is turned that presents a picture. Look at the picture for half a second and then turn the page quickly. If you do that you will pick up some general features of the picture. You will be able to tell whether it is a scene of the countryside, a factory, or a human figure. If it is a human figure, by chance, you will notice some central object in the picture rather than a mass of detail. If the picture was exposed for more than half a second you would have certainly started to scan various sections of the picture. Thus you can demonstrate for yourself the selective nature of perception.

In our present era of research on learning the focus of the work is on perception and memory. The former involves the intake of information and latter relates to storage. These two, the perception and memory, are intimately related, for what is perceived depends upon what is already stored. The mechanism of perception maintains contact between the organism and the environment. While perceiving the organism does not give equal emphasis to every stimulus that impinges on the sense organ. The perceiver recognises only a part of that to which he/she is exposed. The perceptual field is commonly divided into a central area, which is highly structured and constitutes the focus of attention, and the peripheral areas in which there is very little structure. The terms figure and ground have long been used to make the distinction.

What one perceives is related to what one expects to perceive, and what one expects to perceive depends upon what one has remembered. That is, perception is dependent upon memory. When the incoming information is structured in a way that it leads to adaptive behaviour, it is called veridical perception. The perceptions of the child are less veridical than those of adults.

There is overwhelming evidence to indicate that learning may take place through perceptual exposure to the world. At one time psychologists thought that learning took place only when a response was followed by some kind of feedback or reinforcement, but that does not seem to be the case. Perceptual learning does take place without any form of feedback or reinforcement. One can learn in a situation merely by being there.

Kurt Lewin, working in tune with the spirit of gestalt psychology added a number of new concepts and coined new terminology mostly borrowed from physics. To the field psychology, he gave the name *Topological* and *Vector psychology*. Lewin's theory also contributed to the concurrent cognitive field psychology.

### Check Your Progress 1

Note: Write your answers in the space given below.

1) What is meant by the term Gestalt?

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2) Name the different laws of perception.

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## 17.4 COGNITIVE-FIELD APPROACHES TO LEARNING

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### 17.4.1 Meaning of Cognitive-Field Psychology

The cognitive-field theory of learning is closely related to and derived from cognitive and field psychological theories of learning. The cognitive aspect of the cognitive-field theory deals with the problem of how people gain an understanding of themselves and their environment, and how, using their cognitions they act in their environments. A *psychological field* consists of the simultaneous, concurrent interrelationships of a person and his psychological environment in any given situation. Therefore the central idea of the theory is that all psychological activity of a person at a given time is a function of the totality of coexisting factors that are mutually interdependent.

Bigge and Hunt (1980) explained this point further in relation to diverse fields: an astronomer uses field to describe the universe and predict the orbit of stars. A biologist relates the cells to their location in the growth "field". A physicist uses field in his/her study of the structure of an atom. Similarly a cognitive-field oriented psychologist uses field to mean the total psychological world in which a person lives at a given time. It includes psychological past, present, and future, also certain concrete or imaginative levels of psychological reality, all interpreted as simultaneous aspects of current situation.

Cognitive field psychologists draw heavily on the field psychology of Kurt Lewin (1890-1947). Although, Lewin had focussed not on psychology of learning but on psychology of motivation and perception, he was concerned about the application of his theory to learning. Lewin used the comprehensive concept of *life space*. Life space includes everything one needs to know about a person's psychological environment at a given time.

Lewin's field psychology is more exactly known as *Topological* and *vector psychology*. In developing his psychology he borrowed ideas and concepts from other disciplines especially geometry and physics. The concept of *topology* has been borrowed from geometry and *vector* from physics.

In addition to Lewin there are other thinkers who significantly contributed to cognitive field psychology. Some of these include G.W. Allport, Albert Ames Jr., G. Rogers, J.S. Bruner, A.W. Combs, John Dewey, Rollo May, Donald Snygg, Edward, C. Tolman and others.

## 17.4.2 Purpose of Cognitive-Field Psychology

The purpose of cognitive field psychology is to formulate relationships which one can use, with reasonable certainty, to predict the behaviour of an individual in a particular life space. In order to understand such relationships one needs to consider the psychological environment as a pattern of interdependent facts and functions. Cognitive field psychology is in a way interpersonal social psychology which one can use to effectively understand people as interacting persons. In the interaction process a person and his/her psychological environment are considered interdependent variables and not simply as dependent or independent variables. The cognitive field psychology was thus developed for helping teachers understand other people, especially the students. In addition, this psychology is extremely helpful to understand the self.

Within the cognitive-field theory of learning, what is important is an interactional process with which a person attains new insights or cognitive structures or changes the old ones. According to the cognitive field psychologists there is no reality which is completely independent of our experiencing it. Things in themselves have no meaning, meaning is assigned to them only as a result of interaction between person and the environment. The cognitive psychology of learning describes how a person gains understanding of himself/herself and his/her universe so constructed that his/her self and the psychological environment compose a totality of mutually interdependent, coexisting factors.

## 17.4.3 What is Insight?

Insight is the grasp of a situation that often goes deeper than words. To have insight into a situation is to realize its meaning, a basic sense of or a feeling for relationships, a feeling for pattern in a life situation. Learning according to cognitive-field psychologists is a change in insight or cognitive structure. A child or a youth in a learning situation is not unfolding according to nature, neither is one being passively conditioned always to respond in a desired manner. Rather one is always differentiating and restructuring oneself and one's psychological environment. One is thus, gaining or changing one's insight. Learning then is a dynamic process whereby through interactive experience insights or cognitive structures of life spaces are changed. Insights or cognitive structures are answers to questions like how something is made up, what is related to what, how one does something, of what good a thing or action is, and what one should be doing. Insight or cognitive structure may be preverbal or non-verbal. One may gain insight before one has words to express it.

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## 17.5 SPECIAL FEATURES OF COGNITIVE-FIELD THEORY

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There are certain features of the cognitive field theories which are distinctly different from the S-R conditioning theories. The most important of these features are:

- cognitive-field theories lay emphasis upon psychological functions rather than objects;
- they focus upon contemporaneous situation;
- they adopt relativistic - interaction approach;
- the interpretation of intelligent behaviour is purposive.

These features are briefly explained in the following section.

### 17.5.1 Emphasis on Psychological Functions

According to cognitive field theorists a fallacy committed by the behaviourists is their tendency to describe the character of an activity only by its physical aspects and to

neglect the great effect of psychological setting. To be psychological in one's pursuit a cognitive field psychologist looks at the world through the eyes of the learner. So the cognitive field psychologists emphasize psychological functions, relationships, and events as contrasted with physical objects and their movements.

A psychological interpretation of life opens the way for extensive use of systematic constructs. Whereas a behaviourist makes his/her generalization on the basis of objective data, a cognitive-field psychologist deliberately uses constructs that go beyond the observable data. A construct is an invented idea. It is not directly observable but is formed from the observed data. A 'need' defined psychologically is an example of a construct. As such it is not observable, yet it is a crucial functional concept in the study of human activity.

### **17.5.2 Focus on Contemporaneous Situations**

The behaviourists as we understand, use historical approaches to study human behaviour while the cognitive-field psychology is ahistorical approach. Whereas the former is the study of the past of individuals in order to predict their future, cognitive field psychology studies the present of person to apprehend their present and thereby predict their future.

They always begin with a description of the current situation as a whole, the psychological field or the life space, and study the various aspects of the situation. Aspects of the field are not viewed as isolated elements or mutually exclusive but as always interdependent. A psychological field is contemporaneous, which literally means, all at one time. It is a construct of such nature that it contains everything psychological that is taking place in relation to a specific person at a given time.

The principle of contemporaneity means that psychological events are activated by conditions that prevail at the time behaviour occurs. There is a kind of continuity of life space in the past, present and even the future. The past psychological fields do have their trace or residue in the present field which influences a person's behaviour. Trace is a region or condition of the present life space that has similarity to a characteristic of earlier life spaces. Furthermore, the goals of an individual, as psychological facts lie in the present, constitute an essential part of the current life space. The contents of the goal lie in the future and may never occur, yet they constitute as aspect of the present life space and hence, influence it. A person's psychological field that exists at a given time contains the views of the individual about his/her future and his/her past. So any psychological past or psychological future is a simultaneous past of a psychological field or life space that exists at a given time. So, psychologically there is no past or future except as it enters into the present.

### **17.5.3 Relativistic-Interactional Approach**

When a person perceives what is "out there", he/she does not develop a photographic image of exactly what is "out there". Instead he/she views, selects, combines, separates and places into context the objects of his/her experience. Furthermore, it is only through viewing of patterns of experience as a whole that he/she comes to understand, and thereby to explain his/her experiences (Bigge and Hunt, 1980). Psychologically speaking, our perception of the world is neither an objective physical nor objective social representation, or a *one-to-one* correspondence between such aspects of the world and our experience of them. There is no known way that a person can experience the absolute nature of things-in-themselves. What a person does experience is that which he/she makes of what he gains from his/her environment as he/she pursues his/her vicarious goals. Accordingly, cognitive-field theory represents a relativistic, as opposed to an absolutistic mechanistic way of viewing human beings and their learning process.

The basic principle of relativism or interactionism is that nothing is perceivable or conceivable as a thing-in-itself. Every thing is perceived or conceived in relation to other things. A thing is perceived as a *figure* against a *background*, experienced from a given angle or direction of the environment: Reality is thus defined not in objective, physical terms but in psychological perceptual ones.

The term interaction is commonly used by both behaviouristic and cognitive field theorists in describing the person-environment process through which reality is perceived. But in defining the term *interaction*, the two learning families distinctly differ. Interaction for the S-R conditioning theorists means the serial alternating reaction, first of the organism and then of the environment. But for field psychologists it implies that the interaction of a person and his/her environment is simultaneous and mutual, both participate at the same time. The alternating reaction in behaviouristic psychology is passive. The person is regarded as the passively waiting receiver of the stimuli. Similarly the environment is also passively waiting for the reaction (response) of the individual. The behaviourists think of interaction as involving only physical processes, that is, material objects reacting to other material objects. It is just like interaction of molecules in a chemical compound, a chain of causes and effects; stimuli are causes and responses are effects.

But for the cognitive field psychologists, the interaction refers to the relationship between a person and the psychological environment in which the person purposefully tries to give meaning to the environment. Here the psychological concept 'person' is much broader than the biological concept 'organism'. The interaction is the *simultaneous mutual reaction* (SMR) of the person and his/her environment. Perception in such a situation is a cognitive experiential process. It does not mean mere consciousness. A child playing in the yard behaves differently when his/her mother is at home than when she is out. Our behaviour or interaction depends upon our perceptions. Two persons observing the same phenomenon or event occurring 'out there' may behave or react differently, because they perceive the event differently. When the second child, for example, comes in the family, the first child sizes up, perceives the situation. Whether the first child feels rejected depends not upon the physical stimuli as such that he/she receives from the parents but upon what he/she makes of the relationship of the parents, and the second child. The important question is not, 'Do the parents actually favour child number two?', but rather, 'Does child number one "see" the child number two as favoured over himself/herself?' In this situation the parents and the other child are key aspects of each child's and parents' psychological environment. The way child number one perceives the situation has important bearing upon the environments of child number two and the parents.

The cognitive field psychologists thus conceive of "experience" as being dependent upon the perceptions of the individual. They regard experience as rooted in insightful behaviour. It is a psychological event that involves a person's acting purposefully in anticipation of the possible consequences of such actions. So experience is also interaction of a person with ones perceived environment. This is what Dewey meant when he said, "An experience is always what it is because of transaction taking place between an individual and what, at that time, constitutes his environment".

#### 17.5.4 Purposiveness of Intelligent Behaviour

A human being is born as a very complex biological organism in a social environment. Throughout life he/she learns by trying various acts and seeing what happens. Thus through one's purposive living an individual develops as a person or a self. The form of the development of selfhood depends upon the learning resulting from the purposive interaction of the person and his/her psychological environment. Within the cognitive-field psychology, purposive is virtually a synonym for intelligent; it signifies an intentionality that need not be conscious. When an individual is behaving purposively, he/she is pursuing his/her goals in the light of the available insights, he/she is behaving

intelligently. The goals towards which the individual strives psychologically exist in ones present *life space*. The phenomenon of goal has its essence in expectation, not in its actual realization. Although the content of the goal may be in the future, or may not occur at all, the goal as a psychological fact necessarily lies in the present life space. For example, a student's goal to become a teacher is a goal towards teaching as the student now sees it.

The purposiveness of the cognitive field psychology is immanent in - operating within, not transcendental to - not extending beyond the world of experiences; it prevails in work a day life situations. Purposiveness so construed simply means that individuals act in such a way as to achieve their goal or goals, satisfy their wants or desires in the quickest and easiest way that they think possible under existing conditions. To quote Dewey, "Every intelligent act involves selection of certain things as means to other things as their consequences".

### Check Your Progress 2

**Note:** Write your answers in the space given below.

- 1) What is the difference between a socio-physical and a psychological environment?

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- 2) What is the most essential purpose of cognitive field psychology of perception and learning?

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- 3) What is the basic idea behind "insight"?

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- 4) Define the special features of cognitive-field theory of learning.

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- 5) How is human behaviour purposive?

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## 17.6 KEY CONSTRUCTS OF COGNITIVE-FIELD PSYCHOLOGY OF LEARNING

The key ideas (constructs) contained in cognitive field psychology can be put into five pivotal concepts and a number of auxiliary one. The essential idea of field psychology is that the meaning of its constructs are mutually interdependent. Each depends for its meaning upon the meaning of all the other. The pivotal concepts are *life space*, *topology*, *vector*, *person* and *psychological environment*. Life space, which is considered the principal construct, is an individual's psychological world or contemporaneous situation, which includes the person and his/her psychological environment.

### 17.6.1 Concept of Life Space

The concept of life space constitutes an instrument whereby one may objectively study human activity by being, to some degree, subjective. Life space is a model of psychological reality or functional relationships developed for the purpose of describing what is possible and what is impossible for the person studied and of anticipating or predicting what he/she is likely to be thinking and doing now, as well as what his/her subsequent thoughts and actions would be.

A life space represents not the physical objects as such, but functional and symbolic relationships. Hence it includes not only presently perceived objects but also memories, language, myths, art, and religion. In fact there is no one life space but a continuously overlapping series of life spaces. It is the total psychological world, in which a person lives. It includes person's precepts, knowledge, beliefs, attitudes, and his/her time perspective.

A diagrammatic representation of life space and other related constructs is given in Fig. 17.1 but you should remember that it is only figurative.

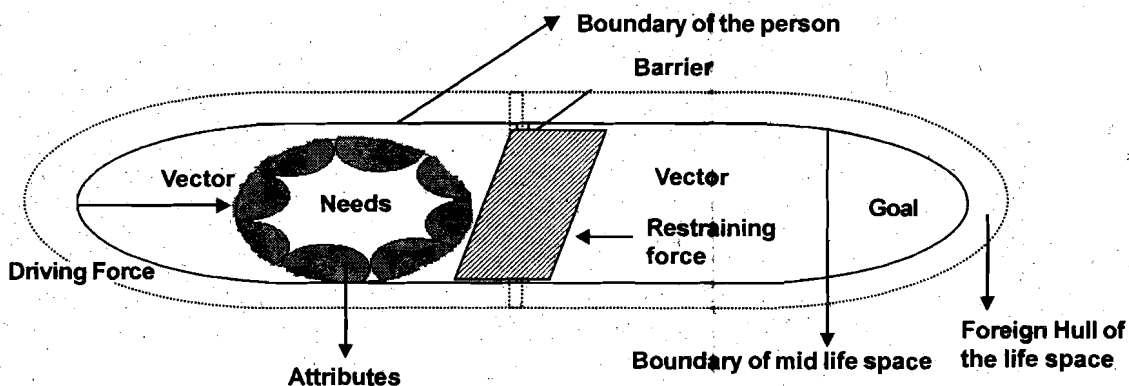


Fig. 17.1: Diagrammatic representation of life space and other related constructs  
(Source: Bigge and Hunt, 1980)

Since life space is figurative we should guard against making physical things of the psychological constructs, for the purpose is to symbolize relationships, particularly functional in nature. For example, we should not think of the psychological person as biological organism or of a psychological environment as the physical environment.

The two principal aspects of a life space are *a person* and *psychological environment*. Both are surrounded by a non-psychological *foreign hull*. This non psychological environment is composed of those aspects of the person's physical social environment that are observable by the person studying a particular person but which at that particular juncture have no significance for the person being studied. So a person is within the psychological environment (every thing that one is conscious of) and both are surrounded

by a foreign hull (all those things of which the individual is not conscious at all), and if by chance things enter one's consciousness at a time they may change the entire behaviour of the individual. These non psychological things, observed only by the outsider, can at the next moment become psychological ones for the person being studied.

### 17.6.1.1 Topology of the Life Space

Topology of the life space is its psychological structure. In mathematics topology is non-metrical geometry which encompasses concepts such as inside, outside, and boundary but have no dealings with length, breadth, or thickness. Topology is concerned with the relative position of the geometric figures being considered. Topologically there is no difference between a circle, an ellipse, a regular or an irregular polygon with any number of sides. A drop of water and the earth topologically are fully equivalent. It is helpful to think of topological plane as made of a highly elastic sheet of rubber; we may stretch, twist, pull, and bend it at pleasure but the relationships it represents remain the same.

There are two basic concepts denoted by the topological space: the connectedness and part-whole relationships. Topologically things may be next to, inside, or outside one another. Size or shape has no significance in a topological figure. Two figures are topologically equivalent, if (and only if) one figure can be made to coincide with the other by an elastic motion. Topologically the three figures shown in Fig. 17.2 are equivalent.

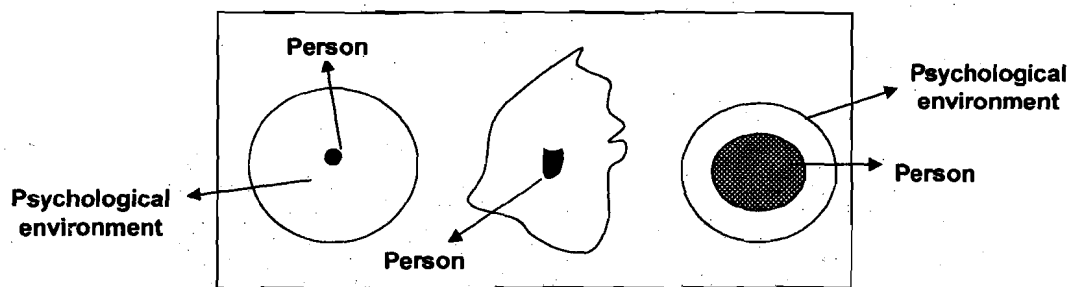


Fig. 17.2: Topologically equivalent figures  
(Source: Bigge and Hunt, 1980)

Topological ideas or terms, when applied to psychology represent the position of a person in reference to one's functional goals and the barriers to their achievement.

### 17.6.1.2 Use of Vectors in Describing Life Space

Whereas topological concepts are used to show what is structurally possible, the vectorial concepts describe the dynamics of a situation – what is happening or is likely to happen. The concept of vector is borrowed from physics (mechanics) where it is used to represent the direction and strength of a force. In psychology a vector represents a force that is influencing psychological movement towards or away from a goal.

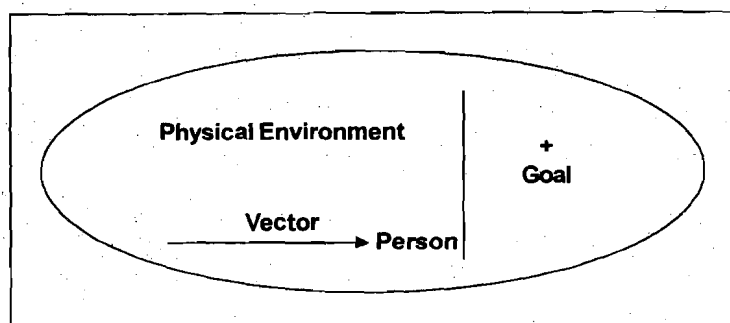


Fig. 17.3: Vector describing life space  
(Source: Bigge and Hunt, 1980)

A force is a tendency to act in a certain way or in a certain direction. A vector is a concept equivalent to and descriptive of a psychological force. If there is a single vector force, the movement will be in the direction pointed by the vector points. But if there are two or more vectors acting simultaneously in different directions the movement will be in the direction and strength of the resultant force.

Since vectors are forces which may act in different directions within the topological space, these are described to have valences of the different environmental regions or functional parts of a life space. The vectors represent the attracting or the repelling powers of regions; they maybe either +ve or -ve depending on their attracting or repelling properties respectively. The vector is represented by an arrow that shows the direction, strength and point of application of the respective force. Further, a vector may represent either a driving force or a restraining force. Driving force may be the tendency of the individual to move towards or away from the goal. The restraining force represents barrier or obstacle to the psychological locomotion. It opposes the driving force. Both the driving and restraining forces arise from, the needs, abilities of the person studied, from the actions of other person(s), and from impersonal aspects of the situation.

### 17.6.2 Psychological Person

The psychological person occupies the position at the centre of the psychological field. The psychological person, however, cannot be identified with the biological person in any circumstance. A person is a purposive behaving self. It represents all that is contained in expressions 'I', 'my', 'me', 'mine'. It is synonymous with 'self', with all the needs aspirations, goals, expectations, abilities, traits, or attainments that one has at a given time. Every individual at a given time is thus a distinctly different psychological person than any other. In the widest possible sense a person or self is the total configuration of all that he/she calls or thinks of as his/her. This can include one's body, speech, clothes, home, parents, siblings, reputation, attainments etc.

Psychologically a person is composed of a *motor-perceptual stratum*, and an instrument to realize the inner personal stratum. The inner-personal stratum represents the needs, interests, goals, expectations, and the preference of the person. Functionally the inner-personal stratum is located at the centre (inner most part) of the psychological person, whereas the motor-perceptual stratum lies between the inner-personal stratum and the psychological environment, and represents the cognitive and manipulative abilities of the person.

### 17.6.3 Psychological Environment

There is a clear difference in the meaning of the term environment as conceived by the cognitive-field psychologists from that of the behaviourists. According to S-R-conditioning theorists (behaviourists), environment consists of all physical and social surroundings of a person which can be objectively observed in physical terms. Obviously such surroundings can be physically observed or perceived.

The cognitive-field psychologists, on the other hand, think of persons' environment as psychological. A person's psychological environment consists of every thing, function, and relationship, that at a given time, surrounds the person and has a meaning for oneself. It is that part of the physical and social environment to which one is psychologically related. A psychological environment is thus what the person makes of ones physical social environment. What one "makes of" means the way he/she perceives it and gives meaning to it. It is not what is "out there" in a purely physical sense. Anything that might be present physically in the environment, but of which the individual is not cognizant remains in the "foreign hull" of the life space. However, if the individual interacts with it negatively or positively, it no longer remains in the foreign 'hull of the individual's life space and becomes a part of the psychological environment. Unless anything is perceived by the individual it is not a part of the life space or psychological environment even though it is physically existent in the environment.

The psychological environments of different individuals are different, even though they live in the same socio-physical environments. For example, the behaviours of two equally intelligent persons when confronted with the same objective facts may differ drastically, because each one has different purposes and experiential background.

### Check Your Progress 3

Note: Write your answers in the space given below.

1) What is life space?

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2) Explain the concept of foreign hull giving examples.

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3) Define the concept of psychological environment of a person.

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## 17.7 LEARNING: A CHANGE IN INSIGHT

According to cognitive field psychologists an individual in a learning situation is not unfolding according to nature. Neither he/she is being passively conditioned or shaped to respond in a desired manner. On the other hand, one is differentiating and restructuring oneself and one's psychological environment. In this process the individual is gaining or changing insights. Learning is therefore a dynamic process in which, through interactive experience, cognitive structures undergo transformation and new insights are gained. These changes in insights or cognitive structures may be preverbal, or non-verbal. One may gain insight before one has words to express it, or one may achieve insight which is or can be verbalized, or one may accomplish insight that does not get verbalized at all. The fact that animals solve problems by formulating a series of cognitive structures is an evidence of non-verbal changes in insights (Kohler's experiments with chimpanzees). It is an insightful process when a cricketer gets the feel for the correct swing of his bat, when a little girl discovers how to dress herself, when a child gets an idea of carry over in addition or multiplication, or when a college student understands Burtrand Russell's 'Our knowledge of the External World'.

A person's behaviour, to a large extent, depends upon the cognitive structure of his/her life spaces. Good insight into the present life space or situation tends to provide excellent foresight into the cognitive structure of the future life spaces. To understand the dynamics of personality organization as a student of education, one needs to acquire a deep understanding of oneself, one's psychological environment, and their relationship in the current series of life spaces.

According to cognitive-field psychologists one's learning consists of:

- i) one's changes in cognitive structure;
- ii) changes in one's motivation;
- iii) gain in one's muscular control and dexterity.

A change in cognitive structure means development of perceptual knowledge. A change in motivation, is concerned with the vectorial or dynamic aspects of a situation, that is learning to like or dislike certain regions or aspects of the life space. However, it is also possible that changes in motivation can be brought about by changes in cognitive structure. For a person to change the valence of an activity, he/she must change the cognitive structure of his/her related life space.

Primarily growing into a culture through changes in one's group belongingness and ideology and one's development of muscular dexterity also require perceptual changes regarding oneself and the people around and getting the feel of performing various actions. Consequently, learning is a change in cognitive structure.

The process of change in the cognitive structure of one's life spaces occurs through differentiation, generalization and restructurization of the respective regions or aspects.

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## 17.8 LET US SUM UP

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Gestalt field psychology is cognitive psychology of learning. It emerged as reaction to both the mentalistic traditional psychology and the atomistic psychology of Thorndike and Watson, called behaviourism. Gestalt is a German word which means a configuration or a pattern. In viewing the world around us, we instead of atomistically viewing it, perceive it as a meaningful whole, not dismantled assemblage of different parts. So gestalt psychology is basically a psychology of perception. It was propounded by German psychologists Wertheimer, Kohler and Koffka. Wertheimer gave us the basic laws of perception: *pragnanz*, similarity, proximity, closure, good continuation, and membership character. As a result of perception, which is governed by these laws, insightful learning takes place which is distinctively different from associative or conditioned learning. To demonstrate insightful learning in sub human primates, Kohler conducted interesting studies on Chimpanzees. Influenced by gestalt psychology, Kurt Lewin furthered cognitive psychology by employing a terminology borrowed mainly from physics and mathematics. Lewin's theory then came to be called topological or vector psychology. The theory was given a special cognitive orientation. The cognitive field psychology of Lewin deals with the problem of how people gain an understanding of themselves and their environment. The theory centres around the idea that all psychological activities of a person at a given point of time, are a function of a totality of coexisting psychological factors that are mutually interdependent. Lewin's basic contribution was the concept '*life space*' which includes everything one needs to know about a person's *psychological environment*. The key constructs of cognitive-field psychology are topology of life space, vector, and psychological person. The life space represents the functional and symbolic relationships, and it includes person's precepts, needs, goal, knowledge, beliefs, attitudes, expectations, memories, language, myths, art, and religion. In fact what constitutes the psychological environment is also a part of life space. The psychological environment comprises everything (functions and relationships) that surround the person at a given time, and has a meaning for him/her. It is what a person makes of his/her physical and social environment. According to the cognitive-field psychologists, learning is a purposive, meaningful activity. It neither unfolds according to nature, nor is passively being conditioned or shaped to respond in a desired manner. On the other hand, it consists of differentiating and restructuring of oneself and one's psychological environment constantly giving rise to new insights. A person's behaviour depends upon the cognitive structure or insights which may be pre-verbal or non-verbal.

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## 17.9 UNIT END EXERCISES

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- 1) Briefly explain the laws of perception given by Wertheimer, especially highlighting the law of *pragnanz*.
- 2) What are the special features of cognitive-field psychology?

- 3) Explain the concept of life-space and its relation with psychological environment.
- 4) Discuss how learning is a change in insight and cognitive structure.
- 5) What is meant by simultaneous mutual reaction (SMR)? Give an example of SMR.
- 6) Differentiate the cognitive field psychology from behaviouristic psychology.
- 7) How is perception a relativistic-interactional approach?

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## 17.10 REFERENCES AND SUGGESTED READINGS

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