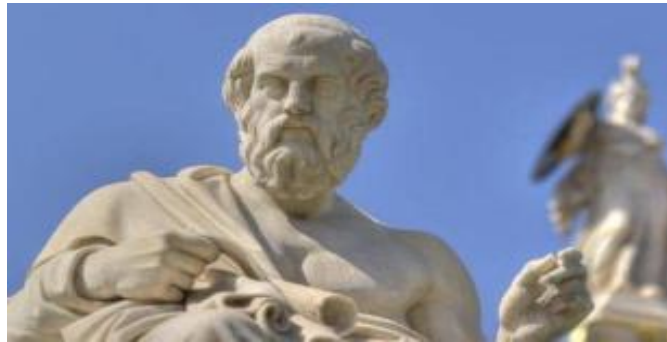


UNIT - IV: THEORIES OF LANGUAGE LEARNING

Plato's problem theory of language – Cartesian theory of language production – Locke's theory of tabula rasa – Skinner's imitation theory of language acquisition – Chomsky's universal grammar theory – Schumann's cultural theory – Kraghen's monitor theory – Piaget's views on language learning – Vygotsky's cultural tools for language learning.

Plato's problem theory of language



Who is Plato?

- Born 427 B.C died 347 B.C
- Son of wealthy aristocrat
- He is student of Socrates and the teacher of Aristotle

Plato's problem theory of language

- The writings of Plato stretch all the way back to the beginnings of Western philosophical thought.
- Plato cited problems critical to modern linguistic thought.
- In the nature versus nurture debate, Plato tended to side with nature, believing that knowledge was innate.(a priori-from what is before)
- People come into the world knowing things they aren't taught.
- Plato believed that some knowledge, including language, was innate. This was why most people can talk early on in life.
- Plato felt things should be considered from the early stages of life.
- From this point, linguists decided whether or not we're actually already born with the abilities to speak a language, or if we have to learn everything on our own.
- Therefore, Plato viewed language as innate.

Plato's problem

- Human beings don't live a long time and yet they are able to accomplish so much in that limited time.
- This is known as, "Plato's Problem."
- This was his answer to what has become known as Plato's Problem, or as Bertrand Russell summarizes it: "How comes it that human beings, whose contacts with the world are brief and personal and limited, are nevertheless able to know as much as they do know?"
- Being born with this knowledge from the very start is the answer to this question.
- Language is a part of that knowledge.

Cartesian theory of language production



Meaning of Language Production

It is the production of spoken and written language

Cartesian Theory says that " The general features of grammatical structures are common to all languages and reflect certain fundamental properties of mind"

He says

- Language acquisition is simple and easy process
- Like Plato he believed in the innateness of Language
- He says that the creative aspect of language differentiates language of animals and humans

Steps in Language Production

➤ **Conceptualization**

We must conceptualize what we wish to communicate

➤ **Formulation**

Formulating thought into linguistic plan

➤ **Articulation**

Executing the plan through the muscles in the speech system

➤ **Self-monitoring**

Finally we can monitor our speech, assessing whether it is what we intended to say and whether we said it the way we intended to

Descartes the French Philosopher and mathematician argued that productivity, namely our ability to generate unlimited number of new thoughts and ideas from the previous ones derives from a single undividable source in the human soul. To Descartes, learning a language meant finding similarities between ones own native language and the target language.

Locke's theory of Tabula Rasa

John Locke (1632-1704)

- The "State of Nature"
- *Tabula rasa*



Tabula Rasa (1632-1704)

- Theory of John Locke
- British Philosopher and medical researcher

- He propounded that child's mind is like a clean slate as we go through life, our experiences write knowledge on that slate
- He also argues that we learn everything through our senses
- Eg: while learning a language every step in our journey towards fluency may feel like writing new information in our mind as if it were a blank slate
- The child who is an active organism needs to be fully and actively developed
- It is the education that stimulates the dormant child to think and discover his potentials
- All knowledge comes from outside ourselves through sensory experience rather than through innate knowledge that we have at birth.
- This naturally carried over to language theory. Locke rejected the idea that there was an innate logic behind language.
- He says that brain is blank at birth, then with experience and environmental influence the brain develops.

In John Lockes view, blank slate theory states

- He argued against the concept of hereditary, royalty and aristocracy
- He argued against slavery
- Argued equality of all people - any uniqueness seen among ethnic group sexes and individuals were not innate but from experiences, Lockes believed discrimination based on these qualities was irrational.

Sensation and Reflection

Locke believed there were two types of experience: external and internal. He called external experience “sensation” referring to human beings interaction with objects in the real world including the color, motion and number of such objects. He referred to internal experience as “reflection” referring to acts of mind such as knowing, believing, remembering and doubting.

Simplicity and Complexity

Locke proposed that all sensation and reflection fell into the categories of being either simple or complex. A simple idea is one which centers on one element such as whiteness. A complex idea is one which combines several simple elements, as an apple contains the simple concepts of whiteness, redness and roundness.

Skinner's Imitation theory of Language Acquisition



- In the middle of the 20th century, B.F Skinner took Lockes ideas of sensory input and ran with them.
- According to Skinner an organism performs an act and if it is rewarded, that act is repeated and becomes a habit, if that act is penalized or punished it fades away.
- Rewarding the correct response and fixing it is the essence of 'Theory of operant conditioning' proposed by B.F.Skinner, a famous behaviourist.

He applied this theory of operant conditioning to the process of language acquisition. He says that language is acquired through operant conditioning otherwise known as reinforcement and imitation. He says that children learn to speak by copying the words and sounds heard around them and by having their responses strengthened by the repetitions, corrections and other reaction that adult provide.

- B.F Skinner believed that children learn language through operant conditioning, in other words children receive rewards for using language in a functional manner.
- For Eg: A child learns to say the word "drink" when she is thirsty. She receives something to drink which reinforce her use of the word for getting a drink and she will continue to do so.

He believed that acquisition of language composed of four elements:

- ❖ Stimulus
- ❖ Response

- ❖ Reinforcement
- ❖ Repetition

He believed in Positive Reinforcement and Negative Reinforcement.

- ❖ Positive Reinforcement
“ I will give you a Cookie if you do your homework” The child will do the homework in order to be rewarded
- ❖ Negative Reinforcement
“ You have to give me a cookie if you don’t do your homework” the child will do the homework in order to avoid having to give away a cookie”

Children learn to speak by imitating the words and noises heard around them. Children strengthen their responses by the repetitions, corrections and other reactions that adults provide, thus language is practice based. Thus children learn language step by step by imitation, repetition, memorization and reinforcement.

Chomsky’s Universal Grammar Theory

Famously, Noam Chomsky argues against many of Skinner’s Theory of Behaviorism with his own Theory of Universal Grammar (the 1950s). This was pretty much the antithesis of Skinner’s theory. Chomsky believed in at least some innate ability in humans for language and a limited number of ways to organize language in our minds. His proof was the fact that there are some universal elements in all languages.

Essentially, we’re all born with the ability to learn languages as a result of a Language Acquisition Device (LAD). This is a theoretical component of the mind that allows anyone to acquire a language. Building off of the nativist theory of language and some of the previous ideas of thought covered here, it shows that people have a capacity to learn a language in everyone from birth.

There is some truth to this. Babies, for instance, have the ability to hear and make any sounds made from any language up until a certain point in development. Also, babies are language-learning machines. They acquire an exceptional amount of knowledge about language in the first years of their lives compared to other topics (like math, reading, abstract thought, etc.). And young children can develop accent-free language abilities up until a certain point as well.

There’s the issue of the poverty of stimulus, or that children simply cannot be exposed to every aspect of language in their environment. Despite this, there are

some grammatical mistakes children never make. For instance, you'll never hear a child mix up word order like this, "Doing are you how?" Instead of, "How are you doing?" These mistakes simply don't happen.

While his language acquisition theory definitely goes further than Skinner's theory in explaining how to learn a first language, it really doesn't apply to secondary language-learning. Instead, it simply reinforces that there are similar elements involved in learning a language. And there are issues with its application to non-western languages as well.

Schumann's Cultural Theory

John Schumann looked specifically at how immigrants learn a new language once they relocate to his Acculturation Model. The Acculturation Model (1978) looks at the sociological and psychological impact of relocation on language learners.

Instead of thinking about language-learning in terms of learning for pleasure, he examined it when it was a necessity. Immigrants, migrant workers, and their children learned a new language with far more pressure from social and psychological areas. and this pressure either resulted in success or failure.

Cultural identification, he argues, is vital to the individual. And if an immigrant's language was roughly equal socially to the language of their new home, they were more likely to learn the language. The same was true if the cultures were similar. Schumann points out 8 different factors that influence how immigrants evaluate just how closely their culture connects with another.

Schumann's 8 factors:

- Attitude Factor: If cultural groups have a positive attitude towards each other, there's a greater chance for language-learning to occur.
- Cohesiveness: The larger the group of similar language speakers, the more they interact with each other, and the less likely language-learning is to occur.
- Cultural Congruence: The more similar two groups are, the greater the chance of repeat contact between them that promotes language-learning.
- Enclosure: If there are more opportunities for learners to interact with native speakers (through schools, jobs, clubs, etc.), there will be a greater chance of language-learning.
- Integration Pattern: Is there a desire to integrate or resist the new language?

- **Intended Length of Residence:** The longer the stay, the increased likelihood of language-learning.
- **Size Factor:** If the language-learning group is too large, they will tend to group together, reducing the likelihood of language acquisition.
- **Social Dominance:** How important is it to learn this language?

He also points out the importance of attitude, culture shock, and motivation for influencing the psychological aspects of language learning. His theories were vastly different than previous language acquisition models because he looked at the individual person and not humanity as a whole.

As a language-learner, you can tie his theory to the importance of motivation behind language-learning. The more motivated you are, the more you want to learn a language, the more likely you are to succeed.

KRASHEN'S MONITOR THEORY

Stephen Krashen offers the most practical out of all these theories because his position gives you an actual strategy you can use to learn a language. The Monitor Model (1970s – 1980s) is a set of 5 hypotheses that build off of each and outline the process everyone goes through to learn a language.

While parts of the language acquisition theory have been disproven or argued against, overall, modern language-learners and instructors gravitate toward these views.

Krashen's 5 theories on language acquisition:

- **The Acquisition-learning Hypothesis:**

Speech isn't the priority. Listening is. Learners begin to understand a language by listening in an immersive environment. Only once a learner has had enough exposure to the language can they begin to speak it.

- **The Input Hypothesis:**

Language-learning comes from having access to comprehensible input, or material that's challenging but still understandable. If it's too complex, people don't learn. If it's too easy, people get bored.

- **The Monitor Hypothesis:** As we develop, we build an internal filter designed to prevent us from making mistakes. This filter can interfere with the language learning process because learning happens through mistakes.
- **The Natural Order Hypothesis:** Language has layers and complexities. People cannot understand complex syntax and grammar structures before people acquire the necessary abilities beforehand. An understanding of grammar happens naturally.
- **The Affective Filter Hypothesis:** Stress inhibits learning. To maximize language learning results, people should learn in a near-zero/zero stress environment. This will allow learners to be at ease to explore the language.

This theory lays out the differences between language learning and language acquisition. Krashen argues that we all learn language subconsciously and universally. He compares it to seeing, eating, and other uniform human activities.

As a result, learning is a far more conscious effort that needs formal correction. His theories appeal to new language-learners because it removes boring drilling and memorization along with stressful performance requirements of traditional language-learning classes off the menu for students. And in the end, it makes learning a language feel more organic and smoother than what most people remember from their high school and other language classroom experiences.

8. Piaget's view on Language learning

Language development occurs in all children with normal brain function, regardless of race, culture or general intelligence. In other words, the capacity to acquire language is a capacity of the human species as a whole. So any theory of language acquisition must account for what children do and do not do in the course of achieving adult linguistic competence.

Children clearly need to be exposed to linguistic data in order to eventually attain adult competence. The relation of human language to other cognitive and social kind of knowledge, and how it changes during development is an important issue in discussing language acquisition theory. Just as lot of current work on

language acquisition is influenced by Chomskyan theory of language, so Jean Piaget's views on child development cast a powerful shadow over the area.

Piaget describes himself as a genetic epistemologist who has a desire to specify the way in which children come to understand the workings of physical world or of logico-mathematical systems.

He believes that the child constructs an understanding of the way the world works, largely by his own actions. His intelligence at any time is a product both of his environment and of certain mental structures interacting with each other. He is concerned with human behavior as it reflects underlying organization.

Piaget's discussion of organization is especially useful in helping to resolve the conflict between the two traditional views of the infant:

- The view of the newborn child as an amorphous lump waiting to be manipulated by his environment.
- The view of him as a complex device carrying within himself a Lull blueprint for his future development.

Piaget concluded that the child passes through a series of stages. Each stage is characterized by certain properties of the child's thought and each child has to pass through the stages in a fixed order, although the rate at which he does so may vary from one child to another. The major stages are:

1. The sensorimotor stage (from birth to 18 months)
2. The pre- operational stage (18 months to 7 years)
3. The stage of concrete operations (7 years to 11 years)
4. The stage of formal operations (11 years and over)

Through these stages the child develops his cognitive ability which plays an important role in language acquisition. If, as Chomsky claims, special structuring capacities are necessary for acquiring language, Piaget would see them as product of development during the first years or two of life, rather than as inherited complete.

Piaget would regard language learning as sharing the general features characteristic of all learning, as the behaviorist do. Unlike the behaviorists, however, he would not describe learning as consisting of the formation of simple habits.

Piaget distinguishes two types of organization

1. The organization which determines the general way in which the human being will interact with his environment and learn from it. The principles which govern how learning takes place he calls “functional invariants”

2. The organization which is the product of that interaction.

For Piaget, the central process of learning, the ‘functional invariants’ include assimilation and accommodation. According to this view the child is born with a very limited set of behavior patterns or schemata, which he seeks to assert on any object he encounters.

For instance, he will try to suck blankets and fingers as well as nipple or a teat. This process, whereby the child seeks to encompass an available object into an activity; schema, is called assimilation. While trying to assimilate these objects to his schema the infant, discovers that he has to open his mouth in a different way to suck different objects, so his schema becomes differentiated as a result of interaction with environment. This process is called accommodation.

In Piaget’s view, one product of the early period of development is the growth of the symbolic function. Before words are acquired actions are used by the infant to indicate recognition of objects and to represent intended activities in advance of performing them. In early childhood, however, anticipation and representation remain tied to concrete events which the child has experienced.

However, as the range and complexity of his mental structures develop through the internalization of action, the child’s thought processes will become more flexible.

During the course of this development the child’s thought process from systematic, interrelated wholes rather than developing piecemeal. A subtle stage will be followed by some development which disrupts the system, and cognitive functioning will be in a state of flux until some higher level of organization is achieved.

Piaget calls these subtle stages states of equilibrium’ and he sees the whole course of development as a dynamic equilibrium’. Each successive state of equilibrium is more elaborate than the last, and consequently more capable of assimilating new experience and accommodating to it without disturbing the stability of the whole structure. This whole process is seen as self-motivating. The child

enjoys exercising schemata while they are in the process of development. Motivation is intrinsic; there is no reinforcement by an external agent to govern what is learned. The child's own mental structures govern what is, attended to and how the new information is construed.

Language development occurs in all children with normal brain function, regardless of race, culture or general intelligence. In other words, the capacity to acquire language is a capacity of the human species as a whole. So any theory of language acquisition must account for what children do and do not do in the course of achieving adult linguistic competence. Children clearly need to be exposed to linguistic data in order to eventually attain adult competence. The relation of human language to other cognitive and social kind of knowledge, and how it changes during development is an important issue in discussing language acquisition theory. Just as lot of current work on language acquisition is influenced by Chomskyan theory of language, so Jean Piaget's views on child development cast a powerful shadow over the area.

Piaget describes himself as a genetic epistemologist who has a desire to specify the way in which children come to understand the workings of physical world or of logico-mathematical systems.

He believes that the child constructs an understanding of the way the world works, largely by his own actions. His intelligence at any time is a product both of his environment and of certain mental structures interacting with each other. He is concerned with human behavior as it reflects underlying organization. Piaget's discussion of organization is especially useful in helping to resolve the conflict between the two traditional views of the infant:

1. The view of the newborn child as an amorphous lump waiting to be manipulated by his environment.
2. The view of him as a complex device carrying within himself a Lull blueprint for his future development.

Piaget concluded that the child passes through a series of stages. Each stage is characterized by certain properties of the child's thought and each child has to pass through the stages in a fixed order, although the rate at which he does so may vary from one child to another. The major stages are:

1. The sensorimotor stage (from birth to 18 months)
2. The pre- operational stage (18 months to 7 years)
3. The stage of concrete operations (7years to 11 years)
4. The stage of formal operations (11 years and over)

Through these stages the child develops his cognitive ability which plays an important role in language acquisition. If, as Chomsky claims, special structuring capacities are necessary for acquiring language, Piaget would see them as product of development during the first years or two of life, rather than as inherited complete. Piaget would regard language learning as sharing the general features characteristic of all learning, as the behaviorist do. Unlike the behaviorists, however, he would not describe learning as consisting of the formation of simple habits.

Piaget distinguishes two types of organization

1. The organization which determines the general way in which the human being will interact with his environment and learn from it. The principles which govern how learning takes place he calls “functional invariants
2. The organization which is the product of that interaction.

For Piaget, the central process of learning, the ‘functional invariants’ include assimilation and accommodation. According to this view the child is born with a very limited set of behavior patterns or schemata, which he seeks to assert on any object he encounters. For instance, he will try to suck blankets and fingers as well as nipple or a teat. This process, whereby the child seeks to encompass an available object into an activity; schema, is called assimilation. While trying to assimilate these objects to his schema the infant, discovers that he has to open his mouth in a different way to suck different objects, so his schema becomes differentiated as a result of interaction with environment. This process is called accommodation.

In Piaget’s view, one product of the early period of development is the growth of the symbolic function. Before words are acquired actions are used by the infant to indicate recognition of objects and to represent intended activities in advance of performing them. In early childhood, however, anticipation and representation remain tied to concrete events which the child has experienced. However, as the range and complexity of his mental structures develop through the internalization of action, the child’s thought processes will become more flexible.

During the course of this development the child's thought process from systematic, interrelated wholes rather than developing piecemeal. A subtle stage will be followed by some development which disrupts the system, and cognitive functioning will be in a state of flux until some higher level of organization is achieved. Piaget calls these subtle stages states of equilibrium' and he sees the whole course of development as a dynamic equilibrium'.

Each successive state of equilibrium is more elaborate than the last, and consequently more capable of assimilating new experience and accommodating to it without disturbing the stability of the whole structure. This whole process is seen as self-motivating. The child enjoys exercising schemata while they are in the process of development. Motivation is intrinsic; there is no reinforcement by an external agent to govern what is learned. The child's own mental structures govern what is, attended to and how the new information is construed.

Language development occurs in all children with normal brain function, regardless of race, culture or general intelligence. In other words, the capacity to acquire language is a capacity of the human species as a whole. So any theory of language acquisition must account for what children do and do not do in the course of achieving adult linguistic competence. Children clearly need to be exposed to linguistic data in order to eventually attain adult competence. The relation of human language to other cognitive and social kind of knowledge, and how it changes during development is an important issue in discussing language acquisition theory. Just as lot of current work on language acquisition is influenced by Chomskyan theory of language, so Jean Piaget's views on child development cast a powerful shadow over the area.

9.VYGOTSKY'S CULTURAL THEORY FOR LANGUAGE LEARNING

. Cultural tools shape cognitive development and can include both technical tools, which act on the environment, and psychological tools, which are tools for thinking. Thought and speech have different roots in humankind, thought being nonverbal and language being non-intellectual in an early stage. However, their development lines are not parallel - they cross again and again. At a certain moment around the age of two, the curves of development of thought and speech, until then separate, meet and join to initiate a new form of behaviour. That is when thought

becomes verbal and speech becomes rational. A child first seems to use language for superficial social interaction, but at some point this language goes underground to become the structure of the child's thinking (Schultz, 2004).

According to Vygotsky,

Once the child realizes that everything has a name, each new object presents the child with a problem situation, and he solves the problem by naming the object. When he lacks the word for the new object, he demands it from adults. The early word-meanings thus acquired will be the embryos of concept formation (Schultz, 2004).

The child requires modelling, practice and interaction in order to follow the language of his social group and then later concept development. Language is not merely an expression of the knowledge the child has acquired. There is a fundamental correspondence between thought and speech in terms of one providing resource to the other; language becoming essential in forming thought and determining personality features (Schultz, 2004).

Another psychological tool he refers to is the zone of proximal development. This means the zone of proximal development includes all the functions and activities that a child or a learner can perform only with the assistance of someone else. The person in this scaffolding process, providing non-intrusive intervention, could be an adult (parent, teacher, caretaker, language instructor) or another peer who has already mastered that particular function (Schultz, 2004). His zone of proximal development also relates to time.

That is, the zone of proximal development, or ZPD, refers to the distance between what a child can do with assistance and what the child can accomplish without assistance (Lewis, N.D.).

During the learning process, a child begins by basically copying an adult's example; the child is initially unable to achieve a given task without assistance. However the child is, at that time, capable of achieving more complex tasks with adult assistance. The difference between these two accomplishments is called the Zone of Proximal Development (Lewis, n.d.). A child's ZPD is constantly changing as he or she masters increasingly challenging tasks with time (Lewis, n.d.)
Look at a simple explanation to understand the ratchet effect better. The example is: Two stair like plates move alongside each other ultimately downwards. However,

while one of them slides down uniformly, the other one staggers up and down, with the cumulative motion still being downwards (cuttheknot.org, n.d.). One can look at the zone of proximal development in a similar way. Human growth, whether intellectual or physical can be looked upon in a similar way. Growth does not always occur at an even keel but in spurts as the child is ready for them. One child may speak at 9 months old, another at 18 months, and yet they both follow the sociocultural theory that Vygotsky was referring to.

Vygotsky's theory is called sociocultural. This means that children's mental, language and social development is enhanced by social interactions. His theory is in direct opposition to Piaget's, who saw children's development as much more solitary. Vygotsky believed that learning becomes alive for children when children interact in their environment and in collaboration (Morrison, 2009). He further believed that children seek out and interact with adults throughout their growing years. In order for these interactions to occur, students need to develop language which further enhances their cognitive development (Morrison, 2009).

Thought and speech have different roots in humankind, thought being nonverbal and language being nonintellectual in an early stage. However, their development lines are not parallel - they cross again and again. At a certain moment around the age of two, the curves of development of thought and speech, until then separate, meet and join to initiate a new form of behavior.