

CHOMSKYAN COGNITIVISM AND LINGUISTIC: IRREPROACHABLE IDEALS FOR EDUCATIONAL PSYCHOLOGY AND DESIGNING LEARNING

By

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ABSTRACT

This paper makes an attempt to highlight the significance of Chomskyan concepts of linguistic and cognitivism in restructuring educational ideals and directions regarding learning in Educational Psychology. His specific views on educational aspects are the need of the hour in education scenario especially in the context of globalization.

This paper is attempted to:

- (i). Identify the Contributions of Chomsky in Psychology, Cognitivism and Educational Psychology.*
- (ii). Identify Chomsky's Contributions on Psychology of learning as a theory that opposes the concept of behaviourist approach.*
- (iii). Discuss the specific views of Chomsky in language learning, class room instruction, school running and educational administration.*
- (iv). Suggest Chomskyan psychology as an inevitable part of the curriculum content of Educational Psychology of teacher education of Indian Universities.*

These reflections and findings of Chomsky supported the restructuring of classroom teaching-learning process not only in language but also in science and humanity subjects. His suggestions scaffold the adoption of innovative pupil centered methods including constructivist approaches in classroom teaching.

All his views show clear-cut support for restructuring educational directions and execution of innovative changes in education in the aspects like planning of education, administration, curriculum, methods, organizing text book, classroom teaching and managing school atmosphere.

Keywords: Chomskyan Cognitivism, Education Psychology, Linguistics and Culture, Verbal or Learned Behavior, Universal Grammar, Cognitive Learning, Social Learning.

INTRODUCTION

Avram Noam Chomsky, American linguist, philosopher, political activist, author and lecturer is well known in the academic and scientific community for his works in theoretical linguistics and cognitive science. His contributions can never blend to a single scenario. He stamped his impressions in all sects including cognitive psychology and education. As it is estimated by Wolfgang, B (2006), there is no doubt to state that his ideals and ideas in education and psychology can be considered the theoretical framework for learning, a critical sector of the discipline Educational Psychology. Going through his ideals in cognitive approach of

language learning, culture and school, educational values and related areas will prove the need of how far he should be recognized in the discipline educational psychology.

Language and Culture in Chomskyan View

The relations of language, knowledge and culture can be identified throughout his theory. In his work *Language and Mind*, Chomsky (1972) clearly states that knowledge and development of language can be acquired effectively while it is closely associated with culture (culture is a complex phenomena comprised with customs practices, beliefs and values) and Culture has a reciprocal contact with language. Language is the result of culture.

At the same time the language enriches culture. Language can never be acquired effectively without its cultural background. Learning language is a social process rather than an individual process is the core of Chomskyan concept of learning. Learning with cultural actions is a new suggestion of Chomsky (Roy Arundhathi, 2003).

Learning Language

Language acquisition is a usual social phenomenon. As Chomsky (1975) asserts, language carries culture and human nature along with its acquisition and transaction. Carrying of language as an art of culture has to be adapted to schools. The provisions of social learning and learning under social systems are suggested widely in Chomsky's theories.

From this view of Chomsky, Wolfgang, B (2006) mused that Schools must move away from the traditional approaches of teaching and learning language and have to adapt with the social environment of learning. The approach must consider child as a social being with all of the highest good of social life and culture. In such an atmosphere, language learning will be effective.

Chomsky in Education Psychology, Intellectual Argument with Behaviorism

Chomsky is neither a fulltime educationist nor he has zeroed in on developing any theory of psychology. Chomsky has not developed any theory in the field of learning or personality as done by Pavlov or Skinner in behaviorism or Piaget or Bruner in Cognitivism or Vygotski in social learning. But his concepts and theories in the concerned sector have paved the way for new attempts in the field of cognitive learning. His ideas, particularly in language, have propounded a new attempt in the learning as a social and cognitive process.

In the work *Aspects of the Theory of Syntax*, Noam Chomsky (1965) opined that the theory focused up on the behavioral change occurring on learner due to stimulus cannot be read as the basic fact of learning. The S- R (Stimulus-Response) approach has no life with the social learning. They cannot with stand together. Hence the S-R theory that developed in learning can never be

applicable to different societies in which different cultural patterns are followed.

Chomsky's review of B. F. Skinner's *Verbal Behavior* challenged the behaviorist approaches to studies of behavior and language dominant at the time and contributed to the cognitive revolution in psychology (Mac Kenneth, 1970). Chomsky has notably imprinted his views in psychology in his criticism against the so-called behaviorism. Behaviorism is an approach describing learning as change in behavior due to trial and error, conditioning and or practice. Behaviorists least consider social influence or cultural influence (these factors are significantly considered by Chomsky) in behavioral change.

The behaviorist theories, which occurred in primary place learning theories and hence considered as the greatest basement of Educational Psychology for decades were soundly challenged by many other theoretical ideals like cognitive psychology, social learning and critical pedagogy. Chomsky has prominent place in substituting S-R theory by cognitivism and social learning as the approaches of learning (Mac Kenneth, 1970). But how far this fact is recognized by curriculum developers in teacher education is doubt full. The teacher Educational Scenario in India, which withstands Educational Psychology as a compulsory subject, yet fails to post Chomsky on apt position, is the present picture.

Contributions those can be identified with Educational Psychology through Chomsky's Linguistics

Chomskyan linguistics, beginning with his *Syntactic Structures* challenges structural linguistics established in language learning and introduces transformational grammar. Ideas of Chomsky those can significantly identify with the areas of dealing of Educational Psychology are described under the coming titles.

Verbal behavior and learning

"Verbal behavior", in his conceptual essays "Reflections of Language, Chomsky (1975) defined as learned behavior. This makes for a view of communicative behaviors much larger than that usually addressed by linguists.

The major facts of Chomsky regarding verbal behavior

can be identified as follows;

- The verbal behavior can purposively make use to enrich the meta-cognitive awareness. It is factual that meta-cognitive awareness is the basic element in any learning, which is compounded with social learning.
- Verbal behavior of learner can be utilized as a factor supporting the development of meta-cognitive awareness.

Explanation and Argument

Individuals are hypothesized to have an innate knowledge of the basic grammatical structure common to all human languages. This innate knowledge is often referred to as universal grammar. This innate knowledge is the meta-cognitive awareness to build the edifice of learning a language.

By this view it can be briefed that with a limited set of grammar rules and a finite set of terms or words, humans are able to produce an infinite number of sentences, including sentences no one has previously said. All children possess learned or verbal behavior and this can work as a support to ascertain meta-cognitive awareness for learning any language or content.

Possibilities or Claims regarding Universal Grammar

- The grammatical principles underlying languages are innate and fixed.
- Differences among the world's languages can be characterized in terms of parameter settings in the brain, which are often likened to switches of a supply unit. (Hence the term principles and parameters, given to this approach).

In this view, a child learning a language need to acquire only the necessary lexical items (words, grammatical morphemes, and idioms), and determine the appropriate parameter settings, which can be done based on a few key examples (Lyons John, 1970). This can be used as a basic new approach of learning not only language but also science and humanities.

Explanation and argument

This idea of language learning is innovative in psychology of learning. Undoubtedly this can be adopted as direction

for learning and instruction. Hence educational psychology that deals with language development can make new approach with these ideas.

This view argues that the swiftness at which children learn languages may get slow, unless children have an innate ability to learn languages. Similar steps followed by children all across the world when learning languages and the fact that children make certain characteristic errors as they learn their first language, whereas other seemingly logical kinds of errors never occur are also pointed out as motivation for innateness (Royaumont, 1980).

Contributions to Psychology and Identified Factors with Educational Psychology

Chomsky's work in linguistics has had major implications for modern psychology. For Chomsky linguistics is a branch of cognitive psychology. Genuine insights in linguistics mean associated understandings of aspects of mental processing and human nature (Roy Arundhathi, 2003). His theory of a universal grammar of languages has major consequences for understanding how language is learned by children and what, exactly, their ability to use language is. Many of the basic principles of this theory are now generally accepted in psychological circles.

According to James Mc Gilvray (2005) Chomsky focused on questions concerning the operation and development of innate structures of language use by which one may be capable of creatively organizing, cohering, adapting and combining words and phrases into intelligible utterances. One of the major contributions of Chomsky in psychology of learning is the cognitive strategy instruction (CSI). The fundamentals of cognitive strategy instruction can be read from Chomsky's following ideas (James Mc Gilvray, 2005).

First is that the mind is "cognitive", or that the mind actually contains mental states, beliefs, doubts, and so on.

Second, is that most of the important properties of language and mind are innate. The acquisition and development of a language is a result of the unfolding of innate tendencies generated by the experiential input of the external environment.

Third is that the concept of 'modularity'- a critical feature of the cognitive architecture of mind. The mind is composed of an array of interacting, specialized subsystems with limited flows of inter-communication.

Chomsky's ideas have had a strong influence on researchers of education investigating the acquisition of language in children. Even the critics never set off the significance of Chomskyan Linguistic. It is profoundly accepted to the education sector that deals with learning. It has been claimed that Chomsky's critique of Skinner's methodology and basic assumptions paved the way for the 'cognitive revolution', a shift from being primarily behavioral to being primarily cognitive (Mac Kenneth, 1970). Theories of Jean Piaget in cognitive psychology dealing the issues in a deviated direction have scored attention in classroom learning. Chomsky, at the same time scored the attention of both classroom learning and social learning. This is his most identified contribution in Educational Psychology.

Chomsky on Educational aspects

In his educational concerns based on Linguistic, cognitivism and political theory, Chomsky has come out with specific views in language learning, class room instruction, school running and Educational Administration.

School and teaching in Chomskyan Concept

Chomsky is against to the traditional practice-oriented learning experiences and conditioned general atmosphere of schools. The school system tries to repress independence; it tries to teach obedience, he believes (James Mc Gilvray, 2005). Children are not encouraged to challenge and question. In school one is to repeat, obey, and follow orders, and so on. Wolfgang, B (2006) also finds that, in Chomskyan view, traditionally schools are designed to teach obedience and conformity and so they prevent the child's natural capacities from developing. To many, school education is a period of regimentation and control, part of which involves direct propaganda, providing a system of false beliefs. Chomsky believed to change this concept. Schools should be democratic and the way of cultural and

environmental interaction must be provided.

Teaching should not be compared to filling a bottle with water but rather to helping a flower to grow in its own way. Teaching without considering social and environmental possibilities of the learner will be worthless (Roy Arundhati, 2003). Humans are distinct from all other organisms because of the system of language, ability to learning and educability. This system is unique in essentials to human species and common to members of the species. So schools and teaching should cop with these human nature. A truly democratic classroom is one in which learner has the opportunity for meaningful and constructive participation in the formation of knowledge. Everyone in the school should be properly educated.

Any good teacher knows methods of instruction and range of materials covered are matters of small importance as compared with the success in arousing the natural curiosity of students and stimulating their interest in exploring on their own to learn (James Mc Gilvray, 2005). What students discover for them will be remembered and will be basis for further exploration and inquiry and perhaps significant intellectual contributions. Learning has to come from the inside. One has to want to learn, if he want to learn he will learn no matter what.

Explanation and Significance

Where and how to teach? Who is to teach? What methods? What will the curriculum be? – are the questions that seek sound attention in educational psychology. The clear-cut explanations of Chomsky to these questions are satisfying the quest of education psychology by and large. Paula Voshell (1988) analyses that, according to the educational theory of Chomsky, this idea is the supporting principles that scaffold entire thoughts on psychological method of learning and teaching practiced in classrooms. This is a major content of Educational Psychology in teacher education sector.

Conclusion

Chomsky has received attention in the field of Educational Psychology. But, not up to his studies deserve. While we go through the curriculum content of Educational Psychology suggested by different

universities of India, South India in particular, it can be identified that the place given to Chomsky has blended only with Language learning. The Educational Psychology of Teacher Educational scenario must give inevitable consideration to Chomsky's Cognitivism as a theory of learning like Piaget's and Bruner's cognitive constructivism or Vygotsky's social constructivism. Chomsky should be studied by student teachers of India widely, because he has come out with innovative ideas of teaching and learning predominantly suitable to the developing countries. These theories are more worthwhile because they have anti imperialistic outlook and keen attention on problems of classrooms of third world countries like India. Hence our universities and NCTE should not waste time to include Chomskyan theories of Cognitivism and psychology as compulsory part of Educational Psychology of teacher education.

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