

Psychological Perspectives on Language Acquisition: Implications for Second Language Instruction

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The canon of second language instruction has never been static, thanks to the research and studies in second language acquisition (SLA) and the intervention of other related disciplines such as anthropology, sociology, theoretical linguistics, and psychology. This paper is an attempt to have a bird's eye view on the implications of psychology as an independent discipline and psycholinguistics as a sub-discipline in second language pedagogy. The history of SLA theory records a corresponding development, equally strong as far as the pedagogy of second languages are concerned, namely sociolinguistics which gave new dimensions to language teaching especially adult second language learning. However, this paper tries to confine itself to the contributions of psycholinguistic studies and research of the last half century— to be precise, since the 1960s ever since Noam Chomsky's cognitive code learning theory started gaining prominence in the discipline and popularity in second language pedagogy. During this half a century, even an Indian village classroom witnessed certain remarkable changes in the teaching and learning of English as a second language (ESL). The impact of the Behaviorist School of Psychology in language learning may continue, as in the case of learning content subjects; but teaching community in general has started making a clear distinction between learning to use a language and learning the content of a subject using that language. Moreover, the role of cognition in language learning has now been established for ever, as a result the teaching- learning processes have tended to be more humanistic in nature.

Even those teachers who had had only a formal initiation into a pre-service certification programme will be aware of the interfaces in which their own discipline namely pedagogy and a related but younger discipline called psychology interact. Psychology as a science has recent origin.

“It has only been very recently, within the last century or so, that we have dared to explore the most proximal portion of our universe – the human mind. It is no accident, that the oldest science is astronomy and the newest is psychology, for distance not only prompts curiosity, it also fosters observational objectivity (Scovel, 1998).

Psycholinguistics, no need to say, is still younger and at the same time fast developing

too, as a branch of science. In the mid-twentieth century, wherein inquiries about the philosophical foundations of language underwent serious changes, the nature of language learning too became sharper and more scientific and the contributions made by scholars working in the interfaces of theoretical linguistics, psychology, pedagogy, anthropology and other disciplines were reckoned so seriously that an independent discipline known as psycholinguistics started emerging.

“In the last fifty years or so, scientists interested in this most proximal piece of nature have carved out a field of enquiry which has begun to yield answers about the structure of the mind, and they have

arrived at these answers, in part, by using evidence from a uniquely human possession-speech and language. The use of language and speech as a window to the nature and structure of the human mind is called psycholinguistics (Scovel, 1998).

Within this field, Developmental Psycholinguistics as a sub-discipline examines how speech emerges over time and how children go about constructing complex structures of their mother tongue. It is developmental psycholinguistics which serves as a springboard to second language acquisition which is the concern of this paper.

Theories of language learning as such never was popularly known or discussed till the mid-twentieth century, therefore serious discussions on second language teaching and learning were almost unknown to academics. This transition period has been described by Rod Ellis as follows:

“In the fifties and sixties there was no field of enquiry that could be labelled ‘second language acquisition’. There was no attempt to develop an explicit theory of classroom language learning... Ideas about language learning during this period were derived in part from linguistic theory and in part from a general theory of learning (Ellis, 1990).

This general theory of learning which was based on psychological principles of learning was considered to be in terms of behavioral outcomes. Ellis continues:

The linguistic theory (of that time) was that propounded by structural linguists. A language was seen as a set of formal patterns that could be described rigorously without reference to meaning. The learning theory was that propounded by behaviorist psychologists. Learning was treated as a process of habit-formation that could be described in terms of stimulus-response associations, often linked together in complex chains (Eills, 1990).

One can notice a combination of two reductionist views on the nature of language and that of learning. This merging may be accidental, but it has had very serious implications for second language instruction. The effects of these views are still predominant in the Indian second language classrooms where memorization, pattern practice, rote learning and the explicit teaching-learning of rules together is called instruction, not only in schools but in universities too.

A thirty-page article which appeared in 1959 became instrumental in the collapse of the strong theoretical edifice built by behaviorists. Noam Chomsky’s Review of B.F. Skinner’s seminal volume *Verbal Behaviour* reinforced his emphasis on the role of human mind in learning language. His 1957 volume *Syntactic Structures* and the 1965 volume *Aspects of the Theory of Syntax* together helped in re-viewing language and language learning from an entirely different perspective. Chomsky’s approach of defining language deviated considerably from that of structuralists whereas his theory of language learning strongly reacted against the behaviorist school of psychology. It was this combination in Chomsky that led to the revolution in the field of second language acquisition (SLA) research.

Cognitivist or mentalist theories emphasized the importance of innate knowledge and the learner’s contribution in the form of a mental grammar known as universal grammar (UG) towards the processes of language learning. Secondly, by rejecting the notion of behaviorism, the new theory put forward the existence of an abstraction called competence in the learner which precedes his rather concrete, actual performance. A third proposition of cognitive theory was that errors are part of development, whereas in behaviorism errors were to be avoided since they were thought of blocking the learning progress. Another

feature of language learning identified by mentalism was that there seems to be a natural sequence of acquisition for many grammatical features. Furthermore it was also proved that the processes of acquiring a second language more or less closely followed those of first language acquisition.

If these are some of the basic tenets of mentalism regarding the learning of a language, the very definition of language too underwent change. In behaviorism, language was a set of observable behavior, which can be fragmented further and thus can be mastered. Cognitivists consider language in its totality and perceive two stages in its existence: the pre-natal stage and the post-natal stage. Behaviorism never took into consideration the former stage since they were only considered with the contribution of the linguistic environment in which the child is born and the contribution of the environment in terms of providing input. Mentalism favours the existence of a mechanism called 'language acquisition device' (LAD) prior to birth in a child and it is this language processing 'black box' which enables the child to receive input (the language it is exposed to) after being born.

This postulation of mentalists is popularly summarized as 'language is genetically acquired and culturally transmitted'. That is to say, language is 'species specific' in the sense that it is a gift only human beings are endowed with; therefore it cannot be compared with any other property shared by other beings. Language is 'species uniform' in the sense that the distribution of the innate faculty for generating language is uniform or equal among all the members of the species called human and at the same time, which language is being possessed by the newborn is a matter of cultural transmission, that is to say determined by the linguistic environment.

It can be pointed out in this context that human mind which had been ascribed very little role in the processes of learning

language in the behaviorist paradigm gets a predominant role to play according to cognitive learning theory. As a result, since the last decades of the last century, remarkable changes started taking place in language pedagogy. Both the philosophy of language which defines what language is and the that part of psychology which studies language learning processes together gave an entirely novel framework for teaching languages especially second languages. Applied linguistics as a discipline emerged during this period and second language acquisition became a major area of research.

A further subdivision developed within the discipline of second language acquisition, namely learnability research.

Applications of formal learning theory to the problem of human language learning can be described as an exercise in which three parties—linguists, psychologists and learnability researchers – cooperatively construct a theory of human language learning...(Bertolo. 2001).

Bertolo draws a parallelism between these three theorists on the one side with three others on the other, who work on constructing a house. They are the architect, the rich patron and the engineer respectively.

"Linguists would correspond to the architect: based on their study of human languages or on more speculative reasons, they specify what they take the possible range of variation among human languages to be. Psychologists would correspond to the patron: they collect experimental data to show that it is not just that humans learn the languages of the linguistic community in which they are brought up... .Finally, learnability researchers correspond to the engineer: some theories of language variation they would be able to rule out directly, by showing that no conceivable mechanism could single out a correct hypothesis from such a large and dense range of choice; some other theories they would pronounce tenable, but only

under certain assumptions on the resources available for learning, assumptions that need to be empirically validated by work in developmental psycholinguistics (Bertolo, 2001).

Learnability theory offers a framework for analyzing the components of a learning problem in language. They are: (i) What is being learnt? (ii) What kind of hypotheses is the learner capable of entertaining? (iii) How are the data from the target language presented to the learner? (iv) What are the restrictions that govern how the learner updates his/her conjectures in response to the data? (v) Under what conditions, exactly do we say that a learner has been successful in the language learning task?

Apart from learnability theory, a few other major areas on which psycholinguists try to shed more light are learner autonomy, self access learning, collaborative learning, form-focused learning and consciousness-raising. All the above areas of research have been profoundly influencing second language pedagogy and as a result, that part of the learner's cognition which actively interacts with language learning processes has been more intensely studied from the perspective of classroom instruction. For example, teaching of reading is no more a matter of how to teach young learners to read a second or foreign language, but the study begins with how native language users are engaged in the process of meaning making and how the nature of meaning itself undergoes change under different circumstances which lead to different types of reading; from glancing through the newspaper headlines at the breakfast table to reading a few articles or chapters for writing an assignment. At all these levels, the pedagogy of second language instruction investigates how and how much the mind interacts with the text, how much of the mind and the text get involved in this mediation, how the learner's schemata interfere in the negotiation of meaning, how from the stage of conceptualization human

mind works out till the stage of articulation or production (what pragmatics tells us about language learning).

Perhaps the most recent among the related disciplines, and incidentally the most important source from which second language pedagogy gained significant theoretical insight is psycholinguistics. It was in the 1980s Stephen D. Krashen who proposed a model called Natural Approach for learning a second language. The main tenets put forward by Krashen and his associate Terrell are based on five hypotheses. They are (i) the acquisition / learning hypothesis, (ii) the monitor hypothesis, (iii) the natural order hypothesis, (iv) the input hypothesis and (v) the affective filter hypothesis.

Since second language pedagogy still revolves around the discussions of Natural Approach, in some way or other, it will be relevant to discuss it in some detail here. First, the terms 'acquisition' and 'learning' which had been used hitherto as synonymous, began to be treated as two distinct modes of mastering a second language. The former process is "the natural way for a child to build her natural competence," which is mainly an unconscious effort and which enable the learner "to develop language proficiency through being involved in its use for communication." (Tickoo, 2003). That is to say, mother tongue is mastered through the process of acquisition. "Learning on the other hand is a conscious process that relies on gaining the mastery of rules. It results in the explicit knowledge about the forms of language" (Tickoo, 2003). The consciously acquired knowledge about the rules of using a language need not (and does not) necessarily result in the knowledge of using that language, though it is likely to lead to the use. This distinction between first language acquisition and second language learning gave a clear insight into further research during the last quarter century.

The second, namely the monitor hypothesis, is based on the first. It states that the knowledge gained through the learning can only act as a corrective device or it monitors wherever the real utterance triggers from the acquired system.

Thirdly, the natural order hypothesis states that “the acquisition of grammar(both morphology and syntax) follows a predictable natural development. This order is true of both first and second language acquisition”(Tickoo, 2003).

The most popularly discussed among the five may be the input hypothesis. A language is best acquired by the learner through getting exposed to the sufficient quantity of the comprehensible input. For this to take place, the input should be not only just rich, but it must be of the slightly higher order in the learner’s linguistic development. The ancestry of this much discussed hypothesis can be traced back to Lev Vygotsky, the Russian psychologist who died at a rather young age in the early twentieth century and whose works were available to readers only after his death. Vygotsky’s postulation needs to be discussed at some length, which appears later.

An acquirer can move from stage *i* (where *i* is the acquirer’s level of competence) to a stage *i*+1 (where *i*+1 is the stage immediately following *i* along some natural order) by understanding language connecting *i*+1 (Krashen & Terrell, 1983).

According to the last hypothesis namely the affective filter hypothesis which forms the basis of natural acquisition, the environment in which stress is low acts as a richer resource of language acquisition, because a low affective filter helps in acquiring language better.

Let us come back to Vygotsky’s theoretical construct. Writing way back in the

early decades of the twentieth century, Vygotsky laid the foundation of what today popularly known as social constructivism which is currently the most advanced theory of education in general. He argues that the origin of any higher order mental function lies outside the individual—in psychological tools and interpersonal relations. Through the mediation of the psychological tools, humans regulate themselves from outside.

Each function in the child’s cultural development appears twice: first, on the social level, and later, on the individual level; first between people (inter psychological), and then inside the child (intra-psychological) (Vygotsky, 1978).

This oft-quoted statement can be considered a milestone in the language acquisition studies as far as researchers are concerned, because this is a landmark verdict on the roles of the two forces which dominate language acquisition, and this statement acts as a signpost indicating where the two forces meet and blend—the psychological and the sociological aspects of language learning.

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