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Theories and Complexity of Second Language Acquisition

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Abstract

Skill building hypothesis are always in rivalry with other powerful Second Language Acquisition (SLA) theories for instance the comparison of the most powerful hypothesis – Comprehension Hypothesis against its skill-building rivals – Output and Interaction hypothesis. The output of any target language depends on the editing of the output of the acquired language. This research paper also attempts to argue the explanation of SLA in the light of recognized attempts. The article attempts to take a different perspective that leads to a deeper and broader SLA process. The inherent ability, contributing factors and conditions make SLA an evidence based complex system. To prove this prospect, different SLA theories have been reviewed for their SLA treatment as all of them have posed a different perspective on Second Language Acquisition. The learning experiences of the second language learners have been studied in the light of multiple hypothesis such as Acculturation, Behaviorism, Connectionism, Interaction, Universal Grammar, Comprehension, Output hypothesis etc. Throughout, from researching the topic to its finalization

the SLA has been considered for its complexity as explained through different theories / hypothesis.

Keywords: Second Language Acquisition (SLA), Complex System and Hypothesis.

Introduction

Complexities of Second Language Acquisition are many as the Second Language Acquisition (SLA) process requires acquisition of vocabulary of target language and learning grammar structures to develop target culture awareness and communication skills. White is of the view that cognitive and affective domain elements are equally important for Second Language Acquisition¹. Affective domain refers to the feelings or emotions (e.g. self-esteem, self-confidence, competitiveness and anxiety) where anxiety being the most crucial language learning factor. Linguistic and cognitive elements do not necessarily make up the complete scenario of Second Language Acquisition (SLA). The motivation and urge to learn increase language learning effectiveness which asks for the understanding of anxiety factor. The complexity resides in the relationship between anxiety of the learner and the foreign language which reflects feelings of tension, worry, apprehension, nervousness and autonomous arousal of nervous system². Language is surely impaired due to the worry, nervousness and apprehension. Spielberg writes that the individual experiencing nervousness, apprehension and worry refers to anxiety³. Anxiety is discussed in debilitating and facilitative aspects as it can also pose positive effects. The explanation of the phenomenon has never been the target of SLA theories. Unlike other learnings the language learning is not linear. One cannot predict it under any SLA model. SLA theories are in abundance. At least forty SLA theories have been proposed⁴. These theories have ignored the crucial aspects (grammar, semantics, pragmatics, etc.) and have merely discussed the syntactic structures (structures of prediction, modification, complementation and coordination) of target language. The brief overview of Second Language Acquisition and their contemporary tendency has been seen as an emergent phenomenon. The number of hypothesis and theories on Second Language Acquisition is huge. For the consumption of the house, here in this research paper, I have selected six of them: Comprehension Hypothesis, Output Hypothesis, Interaction Hypothesis, Acculturation, Behaviorism and Sociocultural Theory. The selected hypotheses and theories have cause huge impact in the field of Second Language Acquisition.

Comprehension Hypothesis

Krashen, in his attempt to explain Second Language Acquisition, worked on the basis of Chomsky's assumptions considering language as an innate faculty and propounded a proposal which proved influential as it emphasized the difference between learning and acquisition. Initially the proposal was named as monitor model but later it was renamed as input hypothesis⁴. It focused on the data responsible for feeding acquisition. Recent developments considered acquisition as a

¹ L. White, "Second Language Acquisition and Universal Grammar," Cambridge University Press, Cambridge, 2003.

² Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern language journal*, 70(2), 125-132.

³ Kim, J. A., Szatmari, P., Bryson, S. E., Streiner, D. L., & Wilson, F. J. (2000). The prevalence of anxiety and mood problems among children with autism and Asperger syndrome. *Autism*, 4(2), 117-132.

⁴ S. D. Krashen, "The Input Hypothesis: Issues and Implications," Longman, London, 1985.

result of mental process and it has been referred as hypothesis model. Other hypotheses are closely related to comprehension hypotheses. It does not deal with the conscious learning but with the subconscious acquisition⁵. The outcome requires comprehensible input as a result of predictably ordered emergence of grammatical structure. Language acquisition is hindered through a strong affective filter – anxiety. Anxiety prevents the input to access the brain where language acquisition occurs. The perspective of Krashen’s model is linear that establishes cause and effect relation between input and language acquisition. It also advocates the predictably ordered acquisition of grammatical structures. The theory purely discusses the acquisition of grammatical structures with a visible lack of research-based evidence⁶. The comprehension hypothesis makes a sense within its existence but this sense cannot be verified contrary to those which consider language learning as a pure social practice.

Output Hypothesis

Krashen’s radical stance on the input has been negated by Swain as he advocated output hypothesis. Output hypothesis has also been termed as lingualization⁷. Learners can observe their production through constant practice essential for the Second Language Acquisition (SLA). Her difference lies in the learners’ stimulation in order to move from strategic processing, semantic and open-ended non-deterministic which prevail in the comprehension of the complete grammatical processing essential for accurate language production⁸. According to her ‘*Noticing*’ is mandatory in second language acquisition. She hypothesized that output also serves two other functions which are testing and triggering of hypothesis. Triggering hypothesis is also a metalinguistic function. Learners’ may output the language just to experience what works and what does not work. It is kind of reflection on the language while negotiating meaning to differentiate between language form and meaning being expressed. Lapkin and Swain has also used think-aloud in order to see the impact of the thought process of the learners⁹.

Interaction Hypothesis

Hatch and Long also posed resistance against Krashen’s Input Hypothesis as they defended interaction hypothesis. Attempts to explain Second Language Acquisition have been made differently for interaction hypothesis¹⁰. Both were of the view that Second Language Acquisition cannot be alone explained by input. Hatch also disagreed with the sequence of learning that states that learners learn structures first and discourse later. According to her, there is a reverse possibility as one learns verbal interaction, conversation through which development of syntactic interactive

⁵ S. D. Krashen, “Applying the Comprehension Hypothesis: Some Suggestions,” Paper Presented at 13th *International Symposium and Book Fair on Language Teaching (English Teachers Association of the Republic of China)*, Taipei, 13 November 2004.

⁶ V. Cook, “Linguistics and Second Language Acquisition,” St. Martin’s Press, New York, 1993.

⁷ M. Swain, “Languaging, Agency and Collaboration in Advanced Second Language Learning,” In: H. Byrnes, Ed., *Advanced Language Learning: The Contributions of Halliday and Vygotsky*, Continuum, London, 2006. pp. 95-108.

⁸ M. Swain, “Communicative Competence: Some Roles of Comprehensible Input and Comprehensible Output in Its Development,” Newbury House, Rowley, 1985, pp. 235-53.

⁹ M. Swain and M. Lapkin, “Problems in Output and the Cognitive Processes They Generate: A Step towards Second Language Learning,” *Applied Linguistics*, Vol. 16, No. 3, 1995, pp. 371-391.

¹⁰ M. H. Long, “The Role of the Linguistic Environment in Second Language Acquisition,” In: W. Ritchie and T. Bhatia, Eds., *Handbook of Second Language Acquisition*, Academic Press, San Diego, 1996, pp. 413-468.

structures occurs. In another empirical research conversation between native and non-native speakers were studied; it showed that more modifications are available in the interaction than in the native speakers' input¹¹. The positive role of modified input has not been rejected but the modifications in the interactions are found successful in Second Language Acquisition. Long also suggested that meanings' negotiation, especially which triggers interactional adjustment by non-native speakers or facilitates acquisition, competent interlocutor, internal learner capacities, selective attention and productive output. Theories are less effective than interactionist approaches as interaction invokes innate and environmental factors which explain learning of a language¹². It is suggested that the language must be viewed as a matter of discourse instead of taking it as a syntactic matter. Free and controlled conversations provide data on interactionist research.

Acculturation

Schumann proposed another theory which is environmental oriented through his known longitudinal using syntactic aspects with a total of six learners among which two each were included from children, adolescents and adults¹³. He used questionnaires to observe spontaneous conversations in the period of three months. The data was evaluated quantitatively. The learner who performed less mostly remained distant from the social or psychological perspectives from target groups. This view describes that the Second Language Acquisition is a result of acculturation which defines the language acquisition as a result of target group social and psychological interaction with the learner. Learners will be successful in language acquisition through acculturation if the social and psychological distances between the learners and target groups are less as they communicate in second language.

Behaviorism

Stimulus Response (SR) theory is the offshoot of behaviorism that has understood the language as a set of structures and the matters of habit formation as acquisition. Behaviorism accounts for the produced stimuli and linguistic environment without ignoring internal mechanism. The mechanical repetition makes learning an automatic and observable behavior that is acquired through stimulus and response. Language acquisition thus becomes the automatic acquisition of linguistic habits. Behaviorism is the inductive discovery of patterns that is rule governed behavior instead of product of mental processes¹⁴. The atmosphere of the learner is the surrounding environment. The criticism on behaviorism is that it helps pronunciation and rote-memorization¹⁵. Behaviorism has given birth to interlanguage studies, contrastive analysis, error analysis and comparison between first and second language as produced by second language learners.

¹¹ M. H. Long, "Input, Interaction and Second Language Acquisition," In: H. Winitz, Ed., *Native Language and Foreign Language Acquisition Annals of the New York Academy of Sciences* 379, New York Academy of Sciences, New York, 1981, pp. 259-278.

¹² D. Larsen-Freeman and M. H. Long, "An Introduction to Second Language Acquisition Research," Longman, New York, 1991.

¹³ J. H. Schumann, "The Acculturation Model for Second Language Acquisition", In: R. C. Gingras, Ed., *Second Language Acquisition and Foreign Language Teaching*, Center for Applied Linguistics, Washington, 1978, pp. 27-50.

¹⁴ M. Johnson, "A Philosophy of Second Language Acquisition," Yale University Press, New Haven, 2004.

¹⁵ D. Larsen-Freeman and M. H. Long, "An Introduction to Second Language Acquisition Research," Longman, New York, 1991.

Sociocultural Theory

Vygotskian thoughts lead to the development of sociocultural theory of Second Language Acquisition that claims language learning a socially internalized process. This socially mediated process fundamentally stands on the principle of mediation where language is a cultural artifact mediating social and psychological activities. Collaborative activities in the childhood help children to make meanings being a member of any given culture which is a purely sociocultural perspective¹⁶. Studies have also advocated the use of sociocultural theory for the second language acquisition (SLA) as the sociocultural theory sets its base in the perspective of non-separation of an individual from social interaction as humans are fundamentally social beings¹⁷. Language learners learn the language by imitating as they observe the use of language in the social setting. Learners also level up their language expertise by interacting with social actors. Vygotsky's scaffolding is another concept which has been borrowed in assistance of language learning for instance from peers, relatives, teachers, etc. These enable language learners to enhance their performance on language learning activity.

Complexity of Language Acquisition

Understanding language learning phenomenon is paradoxical. One cannot reject all the theories because all make their point with reason but seem unbalanced in describing Second Language Acquisition as a whole instead of discussing a part of it. As language learning is not linear which is why it cannot be deemed as hypothesized for other models. Even a slight difference in the initial stage can cause big variations in the outcomes. Previous efforts when put together provide a wider canvas of understanding Second Language Acquisition phenomenon. The creativity zone lies in the maximum potential of learning when combined with maximum models and making maximum possible connections. Many research fields have been influenced by complexity and chaos in Second Language Acquisition. Freeman has seen striking similarities among SLA, language and complexity¹⁸. Her arguments present Second Language Acquisition as a complex, dynamic and non-linear phenomenon referring to a dynamic change¹⁹.

According to Thornbury, other complex systems also share some of their features with language and language learning²⁰. Grammar responds to the incoming data and restructures itself. The language learning is emergent, adaptive, self-organizing, non-linear and feedback sensitive. Van Lier pointed that it cannot be claimed that environmental stimuli cause learning or it is genetic but the learning is an outcome of complex interactions between language learner and environment²¹. The interaction system of Second Language Acquisition includes numerous factors such as

¹⁶ R. Mitchell and F. Myles, "Second Language Learning Theories," 2nd Edition, Arnold, London, 2004.

¹⁷ J. Lantolf and S. Thorne, "Sociocultural Theory and Second Language Learning." In: B. VanPatten and J. Williams, Eds., *Theories in Second Language Acquisition: An Introduction*, Lawrence Erlbaum, Mahwah, 2007, pp. 201- 224.

¹⁸ D. Larsen-Freeman, "Chaos/Complexity Science and Second Language Acquisition," *Applied Linguistics*, Vol. 18, No. 2, 1997, pp. 141-165.

¹⁹ D. Larsen-Freeman, "Second Language Acquisition and Applied Linguistics," *Annual Review of Applied Linguistics*, Vol. 20, 2000, pp. 165-181.

²⁰ S. Thornbury, "Uncovering Grammar," Macmillan Heinemann, London, 2011.

²¹ L. Van Lier, "Interaction in the Language Curriculum: Awareness, Autonomy, and Authenticity," Longman, London, 1996.

political strategies, learning strategies, motivation, etc. Complex model also admits the existence of the language sustenance and innate mental structures which are acquired through automatic linguistic habits and repetition. Second Language Acquisition systems moves with the help of help of personal affiliations and culture. For such SLA systems interaction, input and output are of crucial importance for language learners as they trigger sociocultural and neural connections.

Language has to be taken as non-linear system which is dynamic and constitutes of interrelated sociocultural, bio-cognitive, political and historical elements. Society enables herself to think and act through this system. Language is not static but it is constant moving system which is influenced through interacting elements which help language evolve. The constant and dynamic interaction among moments of turbulence, alternating stability and subsystems keep language developing. Human are also complex and different, they differ in contexts so do in the mediation of SLA processes through human cultural artifacts and agents. Similar settings may produce different learning experiences. Language learners may respond differently to similar circumstances. Educational contexts are struggling to create equilibrium for not language teaching but about the language that leads to strict policies, adjustment of status quo, resistance to change and rigid hierarchies²². Auto-organizing SLA system can overcome learning deficiencies where teacher does not steer the language acquisition but the learners are empowered beyond contextual boundaries. The ability of overcoming political, social and economic constraints by the language learners will decide their pace of language acquisition as these agents limit their learning capacities. Interlanguage dynamicity develops through mediation between learners' experiences and second language cultural production during interactions with proficient speakers. These experience cause necessary shift by disturbing the order to keep Second Language Acquisition occurring.

Conclusions

The theory of Second Language Acquisition is complex to understand that explains the certain and sudden progress of a learner for language acquisition because stability and change occurs during the process. Unpredictable consequences can be related to negligible stimuli because the same learning strategies do not produce similar outcomes for all language learners. The outcomes can be positive or negative and sometimes unpredictable due to the complexity of the system of the application of certain SLA hypotheses or theories. Such as, the comprehension hypothesis makes a sense within its existence but this sense cannot be verified contrary to those which consider language learning as a pure social practice; learners' may output the language just to experience what works and what does not work – Output Hypothesis; Interaction Hypothesis suggested that the language must be viewed as a matter of discourse instead of taking it as a syntactic matter and Sociocultural theory claims language learning a socially internalized process. Thus, understanding language learning phenomenon is paradoxical. One cannot reject all the theories because all make their point with reason but seem unbalanced in describing Second Language Acquisition as a whole instead of discussing a part of it. As language learning is nor linear which is why it cannot be deemed as hypothesized for other models. Formal contexts help teachers to activate learning

²² D. L. Gilstrap, "Strange Attractors and Human Interaction: Leading Complex Organizations through the Use of Metaphors," *Complicity*, Vol. 2, No. 1, 2005, pp. 55-69.

mechanisms but it also results in the creation of certain barriers. Learners empowerment and autonomy can help in removing these insurmountable barriers. Teachers are responsible to create possibilities which promote interaction among native speakers, competent speakers and language learners. Chaos must be provoked by disturbing comfort zone of the language learners through social process which encourages interactions among speakers facilitating small changes which will ultimately create significant observable effects in second language acquisition.

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