

# Second Language Acquisition Theories: Overview and Evaluation

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This paper presents some of the most influential theories of second language acquisition. The first part of the paper outlines some general distinctions and categorizations concerning the different theories as well as criteria for the evaluation of the various theories. A critical overview follows the description of each theory and its contribution to second language acquisition research.

## INTRODUCTION

Over the past three decades a number of different theories of second language acquisition have been formed in an effort to provide explanations as to how language learning takes place, to identify the variables responsible for second language acquisition and to offer guidance to second language teachers. Each theory accounts for language acquisition from a different perspective so some criteria are needed in order to classify and evaluate each theory.

## CLASSIFICATION CRITERIA:

Theories of second language acquisition can be classified according to different criteria. According to their *form* theories can be classified along a continuum with 'deductive' on one end and 'inductive' on the other. Theories following the deductive approach contain concepts and constructs that are assumed to be true without proof. These are the axioms of the theory. Laws of logic are applied on these axioms to obtain the 'hypotheses' of the theory. If these hypotheses are empirically supported then they become the laws and facts of the theory (McLaughlin, 1987:8).

Unlike the deductive approach, the inductive approach does not begin with axioms. Instead it is empirically based. Theoretical statements are formulated after a significant amount of empirical relationships have been established. Theories that follow the inductive approach formulate hypotheses based on

certain empirical facts (McLaughlin, 1987:9).

With regard to the *content*, theories are distinguished into 'macro' and 'micro' theories. Macro theories in second language acquisition have a wide scope and cover a broad range of language learning phenomena. Micro theories deal with specific phenomena and they have a narrow scope (McLaughlin, 1987:9). For example, in the field of child second language acquisition, a macro theory would address a wide range of factors involved in the language learning process, while a micro theory would focus on a specific factor such as how children acquire a specific syntactic feature of the target language.

## EVALUATING THEORIES

McLaughlin (1987) discusses two of the most basic criteria for evaluating a theory: its 'definitional adequacy' and its 'explanatory power'.

The term 'definitional adequacy' refers to the concepts of a theory and their correspondence to some external reality. That is, the concepts of a theory should be defined in such a way so that ambiguity and confusion are eliminated and different people can interpret them in the same way (McLaughlin, 1987:12). The explanatory power of a theory is measured by the correspondence of the theory to the facts that the theory is supposed to explain. In order to enhance the definitional adequacy of theories, theoretical concepts are treated as synonymous with the operations that are

necessary for their measurement resulting in 'operational definitions' (McLaughlin, 1987:13). For example the operational definition for the term 'listening ability' is the score that a learner achieves on a test designed to measure his/her listening comprehension.

Furthermore, a theory should also have explanatory power. It should not only describe certain phenomena but also offer explanations as to 'why' a certain phenomenon occurs. Here it is important that theorists do not over-estimate the truth-value of their theory (McLaughlin, 1987:14).

Finally, a theory is validated by what it suggests and predicts as well as by what it affirms explicitly. In assessing the validity and usefulness of a theory one should consider the theory's correspondence to the facts and internal coherence as well as the predictions that the theory makes - researchers are always interested in and look for theories that can generate hypotheses (i.e. predictions) (McLaughlin, 1987:17). In the next section of this paper, a number of influential theories in second language acquisition are outlined.

## **THEORIES OF SECOND LANGUAGE ACQUISITION**

Second language acquisition theories were developed along the lines of first language acquisition theories. Over the past three decades, studies in linguistics have focused on second language acquisition investigating how a second language is acquired, describing different stages of development and assessing whether second language acquisition follows a similar route to that of first language acquisition. A number of theories of second language acquisition were formulated, either deductively or inductively, and research in the second language classroom flourished.

### **The Monitor Model**

Stephen Krashen's model is one of the most influential and well-known

theories of second language acquisition. In the late 1970s Krashen developed the Monitor Model, an 'overall' theory of second language acquisition, that had important implications for language teaching. Here are the five central hypotheses underlying the Monitor Model:

*i) The Acquisition versus Learning Hypothesis.* Acquisition is a subconscious process, much like first language acquisition, while learning is a conscious process resulting into "knowing about language" (Krashen, 1982:10). Learning does not "turn into" acquisition and it usually takes place in formal environments, while acquisition can take place without learning in informal environments (Krashen, 1976, 1982).

*ii) The Monitor Hypothesis.* Learning has the function of monitoring and editing the utterances produced through the acquisition process (Krashen, 1982:15). The use of the Monitor is affected by the amount of time that the second language learner has at his/her disposal to think about the utterance he/she is about to produce, the focus on form, and his/her knowledge of second language rules (Krashen, 1981:3-4).

*iii) The Natural Order Hypothesis.* There is a natural order of acquisition of second language rules. Some of them are early-acquired and some are late-acquired. This order does not necessarily depend on simplicity of form while it could be influenced by classroom instruction (Krashen, 1985). Evidence for the Natural Order Hypothesis was provided by a series of research studies investigating morpheme acquisition orders.

*iv) The Input Hypothesis.* According to Krashen, receiving comprehensible input is the only way that can lead to the acquisition of a second language. If a learner's level in a second language is *i*, he/she can move to an *i+1* level only by

being exposed to comprehensible input containing  $i+1$  (Krashen, 1985).

v) *The Affective Filter Hypothesis*. Comprehensible input will not be fully utilized by the learners if there is a 'mental block', i.e. the 'affective filter', that acts as a barrier to the acquisition process (Krashen, 1985).

Krashen's Monitor Theory is an example of a macro theory attempting to cover most of the factors involved in second language acquisition: age, personality traits, classroom instruction, innate mechanisms of language acquisition, environmental influences, input, etc., but not without limitations. Despite its popularity, the Monitor Theory was criticized by theorists and researchers mainly on the grounds of its definitional adequacy. Gregg (1984) rejects the most fundamental of Krashen's Hypotheses, the acquisition-learning dichotomy. Following a string of arguments, Gregg concludes that under normal conditions the Monitor cannot be used and since it is the only way in which learning can be utilized, there is no need to talk about two different ways of gaining competence in a second language.

Criticism was also expressed by McLaughlin (1987). McLaughlin acknowledges Krashen's attempt to develop an extensive and detailed theory of second language acquisition but finds it inadequate in that some of its central assumptions and hypotheses are not clearly defined and thus are not readily testable (e.g. the acquisition-learning dichotomy is based on "subconscious" and "conscious" processes respectively, which have not been clearly defined by Krashen although he operationalized them in his studies (see Krashen, Butler, Birnbaum, & Robertson (1978) for an investigation of grammaticality judgments based on "feel" and "rule" for subconscious and conscious acquisition respectively), while other assumptions aiming to enhance the explanatory power of the Monitor Theory

are not based on well-established theories and research (e.g. the Natural Order hypothesis). Furthermore, the role assigned to unconscious learning was found to be overestimated and exaggerated. Instead subsequent studies drew attention to the role of consciousness in second language learning and how much learners notice and what they think as they learn second languages.

Despite the various criticisms, Krashen's Monitor Theory of second language acquisition had a great impact on the way second language learning was viewed, and initiated research towards the discovery of orders of acquisition.

### **Interlanguage Theories**

The term interlanguage was first used by Selinker (1969) to describe the linguistic stage second language learners go through during the process of mastering the target language. Since then, 'interlanguage' has become a major strand of second language acquisition research and theory. This section outlines the three main approaches to the description of interlanguage systems.

According to Selinker (1972) interlanguage is a temporary grammar which is systematic and composed of rules. These rules are the product of five main cognitive processes:

i) *Overgeneralisation*. Some of the rules of the interlanguage system may be the result of the overgeneralisation of specific rules and features of the target language.

ii) *Transfer of Training*. Some of the components of the interlanguage system may result from transfer of specific elements via which the learner is taught the second language.

iii) *Strategies of Second Language Learning*. Some of the rules in the learner's interlanguage may result from the application of language learning strategies "as a tendency on the part of the learners

to reduce the TL [target language] to a simpler system” (Selinker, 1972:219).

iv) *Strategies of Second Language Communication*. Interlanguage system rules may also be the result of strategies employed by the learners in their attempt to communicate with native speakers of the target language.

v) *Language Transfer*. Some of the rules in the interlanguage system may be the result of transfer from the learner’s first language.

Selinker’s description of the interlanguage system has a cognitive emphasis and a focus on the strategies that learners employ when learning a second language. A different approach to the theory of interlanguage was adopted by Adjemian (1976) in his attempt to describe the nature of the interlanguage systems. Adjemian argues that interlanguages are natural languages but they are unique in that their grammar is permeable (Adjemian, 1976). He also differentiates between the learning strategies that learners employ and the linguistic rules that are “crucially concerned in the actual form of the language system” (Adjemian, 1976:302). Adjemian (1976) concludes that the description of these linguistic rules that will reveal the properties of the learner’s grammar should be the primary goal of linguistic research.

The third approach to the description of interlanguage was initiated by Tarone (1979, 1982). She describes interlanguage as a continuum of speech styles. Learners shift between styles according to the amount of attention they pay to language form- from the superordinate style in which attention is mainly focused on language form to the vernacular style in which the least attention is paid to language form. The new target language forms first appear in the more careful style and progressively move towards the vernacular style. The

systematic variability of interlanguage systems is reflected to the variable effect which the different tasks and different linguistic contexts have on the learners’ use of syntactic, phonological and morphological structures (Tarone, 1982). Even though Tarone does not deny that other theories can provide explanations of second language acquisition, she argues that “any adequate model of SLA [second language acquisition] must take IL [interlanguage] variation into account” (Tarone, 1990:398).

Different approaches were employed for explaining the acquisition of interlanguage and how learners discover and organize form-function relationships in a second language. Ellis (1985) argues that learners begin with forms which are used in free variation during the early stages of second language acquisition (non-systematic variability) until more organizing and restructuring has taken place (systematic variability). In contrast to Ellis’s claims, the functional approach to the analysis of interlanguage argues that discourse functions develop before grammatical functions and evidence is provided of the acquisition of function occurring without the acquisition of form (Pfaff, 1987).

The role of the mother tongue (L1) in the acquisition of the target language (L2) was re-examined under the scope of the interlanguage theory and predictions were made about when the influence of L1 is greatest. Zobl (1980a, 1980b) investigated the L1 influence on L2 acquisition and argued that it is “the formal features of L2 that control the formal aspects of its acquisition, including the activation of L1 transfer” (Zobl, 1980a:54, 1980b).

The approaches to the study of interlanguage, as described above, agree on two basic characteristics of interlanguage systems: interlanguages are systematic (systematicity either in the form of learning strategies the learners employ or linguistic rules that govern the learners’

grammars), and dynamic (interlanguages keep changing until the target language system is fully acquired). The scope of these approaches is also common: interlanguage is seen as a kind of interim grammar gradually progressing towards the target language grammar. Morpheme studies were employed to describe the systematicity of interlanguage systems and also the various stages of interlanguage development until the target form is acquired. The interlanguage theories were inductively derived from studies following Error Analysis, the view that by analyzing learners' errors we can predict the linguistic stage that a learner is at. However, Error Analysis as a mode of inquiry was limited in its scope and concentrated on what learners did wrong rather than on what made them successful (Larsen-Freeman & Long, 1992:61). In that respect, interlanguage theories are limited in their explanatory power.

### **Universal Grammar Theories**

Universal Grammar (UG) theories are based on Chomsky's claim that there are certain principles that form the basis on which knowledge of language develops. These principles are biologically determined and specialized for language learning (Chomsky, 1969, 1980, 1986). Originally, UG theory did not concern itself with second language learning. It referred to the first language learner. Its principles though were adopted by second language researchers and were applied in the field of second language acquisition. UG was used in order to provide explanations for the existence of developmental sequences in interlanguage and to support the view of interlanguage as a natural language which is subject to the constraints of the Universal Grammar (Hilles, 1986:45). The use of UG for language transfer, fossilization and L2 pedagogy was also suggested. Evidence was provided that adults have some sort of access to knowledge of UG, and this knowledge is used in the development of

foreign language competence (Bley-Vroman, Felix, & Ioup, 1988).

A model very similar to Chomsky's Universal Grammar was proposed by Felix (1985). The 'Competition Model' consists of two subsystems: the Language-Specific Cognitive System (LSC-system) and the Problem-Solving system (PSC-system) and it is responsible for the differences in the learning processes employed by children and adults. It is argued that the children's learning process is guided by the LSC-system, while adults employ the problem solving module which then enters into competition with the language-specific system. Even though the LSC-system is governed by principles similar to the principles of the Universal Grammar, the principles of the PSC-system are largely unknown (Felix, 1985:70).

Another UG based theory, the Creative Construction theory, was suggested by Dulay and Burt (1974). According to this theory children engaged in second language learning progressively reconstruct rules for the target language speech they hear guided by 'universal innate mechanisms' which lead them to construct certain types of hypotheses about the system of the language they are acquiring until the mismatch between what they are exposed to and what they actually produce is resolved (Dulay & Burt, 1974:37). Empirical evidence from comparing the errors produced by Spanish children learning English with those produced by children learning English as their mother-tongue, showed that most of the syntax errors in English produced by the Spanish children were of the same type of errors made by children learning English natively (Dulay & Burt, 1973). Also, finding Spanish and Chinese children acquiring English morphemes in similar orders, Dulay and Burt conclude that it is the L2 system rather than the L1 system that guides the acquisition process (Dulay & Burt, 1974:52).

The effect of the mother-tongue in determining the magnitude of the second

language learning task is reflected in the model of the learning process that Corder (1978) suggested. According to this model the learner begins his/her learning task from a basic Universal Grammar (or built-in syllabus) which gradually becomes more complex in response to the learner's exposure to target language data and the communicative needs he/she is faced with. This elaboration or complexification process follows a constant sequence for all learners of a particular second language, but the progress of any particular learner is affected by the degree to which his/her knowledge of the target language in the form of mother-tongue-like features facilitates his/her learning process.

In summary, Universal Grammar theories of second language acquisition were generated in order to provide explanations for empirical evidence and they were primarily concerned with the internal mechanisms that lead to the acquisition of the formal aspects of the target language and the similarities and differences between acquiring a particular language as a first or a second language. Although researchers have used UG to generate a number of interesting hypotheses about second language acquisition, and generative theorists regard UG as the best theory of grammar because of its descriptive and explanatory adequacy (Ellis, 1994:429), empirical evidence has been restricted to the acquisition of a small set of syntactic phenomena. A general theory of second language acquisition needs to cover a wider range of phenomena (McLaughlin, 1987:108).

### **Cognitive Theories**

Psychologists and psycholinguists viewed second language learning as the acquisition of a complex cognitive skill. Some of the sub-skills involved in the language learning process are applying grammatical rules, choosing the appropriate vocabulary, following the pragmatic conventions governing the use of a specific language (McLaughlin,

1987:134). These sub-skills become automatic with practice (Posner & Snyder, 1975). During this process of automatization, the learner organizes and restructures new information that is acquired. Through this process of restructuring the learner links new information to old information and achieves increasing degrees of mastery in the second language (McLaughlin, 1987, 1990a). This gradual mastering may follow a U-shaped curve sometimes (Lightbown, Spada, & Wallace, 1980) indicating a decline in performance as "more complex internal representations replace less complex ones" followed by an increase again as skill becomes expertise (McLaughlin, 1990b).

From the cognitivist's point of view language acquisition is dependent "in both content and developmental sequencing on prior cognitive abilities" and language is viewed as a function of "more general nonlinguistic abilities" (Berman, 1987:4).

Evidence against the cognitivist theory is provided by Felix (1981) who describes the general cognitive skills as "useless" for language development (Felix, 1981). The only areas that cognitive development is related to language development is vocabulary and meaning, since lexical items and meaning relations are most readily related to a conceptual base (Felix, 1981).

A base in cognitive theory is also claimed by the interactivist approach to second language learning (Clahsen, 1987). The language processing model proposed by the interactivist approach "assumes an autonomous linguistic level of processing" and contains a general problem solver mechanism (GPS) that allows "direct mappings between underlying structure and surface forms, thus short-circuiting the grammatical processor" (Clahsen, 1987:105).

The language acquisition theories based on a cognitive view of language development regard language acquisition

as the gradual automatization of skills through stages of restructuring and linking new information to old knowledge. However, the differences between the various cognitive models makes it impossible to construct a comprehensive cognitive theory of second language acquisition and furthermore, as Schmidt (1992) observes:

“there is little theoretical support from psychology on the common belief that the development of fluency in a second language is almost exclusively a matter of the increasingly skillful application of rules” (Schmidt, 1992:377).

The last two theories dealt with in this paper, the Multidimensional Model and the Acculturation/Pidginization Theory, refer mainly to the acquisition of a second language by adults in naturalistic environments.

### **Multidimensional Model**

In the Multidimensional Model, the learner's stage of acquisition of the target language is determined by two dimensions: the learner's developmental stage and the learner's social-psychological orientation. The developmental stage is defined by accuracy orders and developmental sequences, but within a stage learners may differ because of their social-psychological orientation, which is independent of developmental stage. Thus a 'segregatively' oriented learner uses more restrictive simplification strategies than an 'integratively' oriented learner who uses elaborate simplification strategies. The segregative learner is more likely to fossilize at that stage than is the integrative learner who has a more positive attitude towards learning the target language and a better chance of

learning the target language well (see also Clahsen, Meisel & Pienemann, 1983).

The Multidimensional Model has both explanatory and predictive power in that it not only identifies stages of linguistic development but it also explains why learners go through these developmental stages and it predicts when other grammatical structures will be acquired (Ellis, 1994:384). Although the Multidimensional Model has made important contributions to second language acquisition research, there are some problems with the “falsifiability” of its predictive framework, such as explaining how it is that learners learn whatever they manage to produce despite the processing constraints (see also Larsen-Freeman & Long, 1991:285; McLaughlin, 1987:114-115). Furthermore, the Multidimensional Model does not explain the process through which learners obtain intake from input and how they use this intake to reconstruct internal grammars (Ellis, 1994:388). In this respect the Multidimensional Model is limited.

### **Acculturation/Pidginization Theory**

According to Schumann (1978):

“second language acquisition is just one aspect of acculturation and the degree to which a learner acculturates to the target-language group will control the degree to which he acquires the second language.” Schumann (1978).

From this perspective, second language acquisition is greatly affected by the degree of social and psychological distance between the learner and the target-language culture. Social distance refers to the learner as a member of a social group that is in contact with another social group whose members speak a different language. Psychological distance

results from a number of different affective factors that concern the learner as an individual, such as language shock, culture shock, culture stress, etc. If the social and/or psychological distance is great then acculturation is impeded and the learner does not progress beyond the early stages of language acquisition. As a result his/her target language will stay pidginized. Pidginization is characterized by simplifications and reductions occurring in the learner's interlanguage which lead to fossilization when the learner's interlanguage system does not progress in the direction of the target language (for a review see McLaughlin, 1987:110-112).

Schumann's theory received limited empirical support. Among some of the criticisms that the acculturation theory received was that social factors are assumed to have a direct impact on second language acquisition while they are more likely to have an indirect one (Ellis, 1994:233). Also, pidginization is a group phenomenon, while language acquisition is an individual phenomenon. Finally, the acculturation model fails to explain how the social factors influence the quality of contact the learners experience (Ellis, 1994:234).

## **SUMMARY**

The second language acquisition theories reviewed in this paper have paid attention to different aspects of the second language acquisition process and have provided valuable background and hypotheses for numerous research studies. All of the theories regard second language acquisition as a gradual process. Whether language learners use strategies, cognitive or innate mechanisms, they still have to progress towards the target language going through various stages of development.

Although theories are primarily concerned with providing explanations about how languages are acquired, no single theory can offer a comprehensive explanation about the whole process of

second language acquisition. Each theory offers a different insight in the complex process of second language acquisition. For example, during the era of developmental studies, Larsen-Freeman (1978), in an effort to provide an explanation for the morpheme acquisition order in second language learning, concludes that the morpheme frequency of occurrence in native speaker speech is the principle determinant for the morpheme order in the speech production of second language learners. However this conclusion seen under the light of different theories of second language acquisition can provide a number of different explanations. From the cognitivist's point of view this finding is evidence that the learner, in the process of testing his/her hypotheses about the target language system, has managed due to the frequency of occurrence of a particular L2 construction to refine his/her hypothesis about a specific L2 rule. Another explanation based on the affective factors influencing second language acquisition could suggest that the learners in their effort to match the gestalt of the native speaker input to which they are exposed, acquire and produce the appropriate morphemes in their speech (Larsen-Freeman, 1978). Larsen-Freeman (1978) concludes that there is not a single explanation that could work for all learners, and that different learners may rely on different strategies when learning a second language, depending on a number of different variables such as the target language input they are exposed to, their cognitive style, their motivation, their proficiency in the target language, etc.

The large number of second language acquisition theories shows the great interest that the study of second language acquisition has produced over the past three decades. Despite their controversies, the theories of second language acquisition managed to initiate various research questions and to shed light on a number of linguistic and

cognitive processes that are part of this large jigsaw puzzle called 'second language acquisition'.

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