

Contrastive Analysis, Error Analysis, Markedness Theory, Universal Grammar and Monitor Theory and their Contributions to Second Language Learning

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Abstract

Theories of second language acquisition (SLA) play an important role in second language (L2) learning. These theories can help both language teachers and their students to understand L2 language learning process. There are various theories and approaches of SLA which try to explain how L2 learning takes place. Each theory accounts for L2 acquisition from a different perspective. This paper describes and compares five theories of L2 acquisition: Contrastive Analysis (CA), Error Analysis (EA), Markedness Theory, Universal Grammar (UG) and Monitor Theory, explains their contributions to L2 learning and shows the criticism of each theory. First, in Contrastive Analysis, the weak and strong hypotheses and types of language transfer are explained. Second, in Error Analysis, attitudes towards errors and aims, process and models of Error Analysis are described. Third, in Markedness Theory, the role of typological markedness in the explanation of L2 learning, the Markedness Differential Hypothesis (MDH) and the Structural Conformity Hypothesis (SCH) are explained. Fourth, in Universal Grammar, it is shown that L2 acquisition occurs on the basis of first language (L1) acquisition: L2 acquisition is a matter of setting the correct L2 parameters. The Language Acquisition Device (LAD) and L2 access to UG are explained. Finally, in Monitor Theory, it is suggested that comprehensible input is crucial for L2 acquisition and the five hypotheses of the theory are explained: (a) The Input Hypothesis, (b) The Learning-Acquisition Hypothesis, (c) The Monitor Hypothesis, (d) The Natural Order Hypothesis and (e) The Affective Filter Hypothesis.

Keywords: Contrastive analysis, Error analysis, Markedness theory, Universal grammar, Monitor theory, Second language acquisition, Language transfer

1. Introduction

A number of different theories and hypotheses in the field of second language acquisition (Larsen-Freeman & Long (1991) estimate around 40) have been formed in an effort to provide explanations as to how L2 learning takes place, to identify the variables responsible for L2 acquisition and to offer guidance to L2 teachers. Each theory accounts for language acquisition from a different perspective and sheds light on one part of the language learning process. However, no one theory of L2 acquisition has yet been widely accepted by researchers.

This research includes two main sections. First, it explains five theories of L2 acquisition: a description of each theory and its contribution to SLA research. These theories are Contrastive Analysis (CA) (Fries, 1945), Error Analysis (EA) (Corder, 1967), Markedness Theory (Eckman, 1977), Universal Grammar (UG) (Chomsky, 1981) and Monitor Theory (Krashen, 1985). Second, it compares these theories which are presented below in chronological order.

2. Contrastive Analysis (CA)

Contrastive linguistics develops language awareness (James, 2005; Mair, 2005). Judged by the rules of the source language (SL), learners regularly produce erroneous or ill-formed utterances. It was thought that errors could be corrected by repeating the explanations until the errors disappeared. This gave way to the idea that errors were an indication of the learner's difficulties, which could be traced back to transfer of the mother tongue (MT) habits to the target language (TL). Lado (1957, 1) states that:

(1) Individuals tend to transfer the forms and meanings and the distribution of forms and meanings of their native language and culture to the foreign language and culture – both productively when attempting to speak the language and act in the culture and receptively when attempting to grasp and understand the language and the culture as practised by natives.

In this case, errors were to be dealt with by more intensive drilling of the sound patterns and sentence structure of the TL. Errors occurred because of interference and therefore a structural comparison or contrast between the MT and the TL could predict the learner's difficulties (Broselow, 1984). The belief that almost all errors had their origin in MT interference gave rise to Contrastive Analysis (henceforth, CA) (Fries, 1945; Weinreich, 1953; Lado, 1957). CA theory developed out of behaviourism, a theory in psychology and a foreign language teaching programme (Zampini, 2008). The publication of *Teaching and Learning English as a Foreign Language* by Fries (1945) opened a new horizon in the study of SLA. Fries (1945, 9) assumes that 'the most efficient materials [for foreign language teaching] are those that are based upon a scientific description of the language to be learned, carefully compared with a parallel description of the native language of the learner'.

It was thought that the greater the differences between the structures of the MT and the TL, the greater the problems and difficulties in learning and performance would be. Lado (1957, 2) explains these difficulties for the foreign learner, as follows:

(2) Those elements that are similar to his native language will be simple for him, and those elements that are different will be difficult.

Within CA, one major concept that is given a prevalent place and has contributed to the explanations of errors found in L2 learners is the concept of transfer (George, 1972; Dulay & Burt, 1974). Major (2008, 64) states that ‘the fundamental claims of CA are that transfer explains all errors and on this basis it is possible to predict all errors’. Broselow (1983, 302-303) states that ‘language transfer does play a significant role in second language acquisition: certain systematic errors can be directly attributed to the use by language learners of a phonological rule in the production of second language forms’. Many studies conducted in L2 learning have dealt with transfer theory in great depth, because it was noticed that there exists a relation between ‘errors’ and ‘interference’. For example, George (1972) found out that one third of the errors found in his corpus could be explained via ‘negative transfer’ which has been referred to as ‘interference’. Selinker (1966, 103) defines transfer as ‘a process occurring from the native to the foreign language if frequency analysis shows that statistically significant trend in the speaker’s native language...is then paralleled by a significant trend toward the same alternative in the speaker’s attempted production of the foreign language sentences’. On the other hand, James (1980, 25) regards transfer as ‘the psychological corner of CA’. Zampini (2008, 2) states that ‘while other domains of SLA research such as morphology, syntax, and pragmatics have also focused on transfer, it is within the domain of L2 phonology that transfer has been most heavily researched, due to the recognition that it is within this area of acquisition that transfer is most prevalent’.

Language transfer can be either positive or negative. This is pointed out by Gass & Selinker (1983, 821) who explains language transfer as

(3) a technical term denoting ‘the positive’ interaction of two or more similar areas of language resulting in correct linguistic output (positive transfer) or denoting the negative interaction of two or more similar areas of language and languages resulting in incorrect linguistic output ‘negative transfer’.

According to Littlewood (1984), positive transfer is viewed when the L1 structure equates the L2 structure. Therefore, the L2 learner ends up with correct performance, because the L1 structure has been seen as a facilitating tool in the process of L2. This is supported by Van Els et al (1984, 49), as follows.

(4) Positive transfer, or facilitation, is a transfer of a skill X which facilitates the learning or has a positive influence on the command of a skill because of similarities between both skills.

The second type of language transfer is ‘negative transfer’ and is defined by Van Els et al (ibid.), as follows.

(5) [Negative transfer] is a transfer of a skill X which impedes the learning or has a negative influence on the command of a skill Y because of differences between both skills.

Broselow (1984, 253) points out negative transfer by stating that ‘one would expect to find negative transfer operating in cases which, for example, the native language had a rule which the target language lacked. Thus a German speaker learning English might deviate from the target language in accord with the rules of German phonology’.

The phenomenon of interference has promoted a number of investigations to find out the factors that induce such phenomenon to occur. James (1980, 146) points out the various factors that contribute to the occurrence of interference, as follows.

Amount and nature of L2 input: Interference occurs when the L2 learner’s input is very limited in both ‘quantity’ and ‘scope’. This phenomenon can be manifested especially when L2 is learned in an L1 environment (schools).

Level of linguistic analysis: Most research has been done at the levels of morphology and syntax rather than at the phonological and lexical level. It is because of these two levels that ‘interference’ as a linguistic term has been included in the literature.

(c) *Linguistic distance between L1 and L2:* Related linguistic systems induce the interference phenomenon to manifest itself. Hence, since the two languages are different, L2 learners have a tendency to translate the features from L1 into L2.

(d) *L2 learning stage:* Taylor (1975) pointed out that interference phenomenon is more frequent among beginners than among advanced learners during the L2 learning process.

(e) *Task focus:* Interference is common among L2 learners if the focus of L2 is on grammatical forms rather than on ‘communicative effectiveness’.

Despite the fact that CA has raised some fundamental issues in language learning, by the 1970s people started questioning its validity. There have been doubts about the status and applicability of contrastive linguistic studies to language teaching (Ritchie, 1967; Nemser, 1971; Slama-Cazacu, 1971; Dulay & Burt, 1974). This is due to many reasons:

1) Difficulties predicted by CA were not always found to be so (Nickel, 1971):

- Where there were similarities between the languages, errors occurred although CA predicted no difficulty (Major, 2008).
- Where there were big differences between the languages, errors often did not occur although CA predicted difficulty (Broselow, 1984).

2) Not all difficulties and errors arise from the influence of the MT (Dušková, 1969; Richards, 1971; Dulay & Burt, 1973; Broselow, 1984; Swan, 1997). This is also pointed out by Broselow (1983, 292) who states that ‘it is certain that many factors other than transfer from the first language are involved in phonological errors made by language learners’.

3) Adequate comparisons of languages were faced with purely theoretical problems which made the whole operation of doubtful validity (Hamp, 1965; Van Buren, 1974; Krzeszowski, 1974).

As a result, there was a reappraisal of the theoretical basis for such studies and its value for language teaching. Wardhaugh (1970) distinguished between the strong and weak hypothesis of CA:

- The strong hypothesis stated that a systematic CA could predict the learner's difficulties and remedial teaching materials could then be devised.
- The weak hypothesis stated that a comparison between the MT and the SL might help to explain the difficulties evident from the learner's errors.

Nehls (1974) and James (1971) have made a reasoned reply to all these criticisms. James argues that many of the claims for which the analysts are attacked have never been made by them. Indeed, since 1968 contrastive analysts have gradually abandoned the stronger claims. In addition, research in this area has broadened its scope in two directions towards:

- 1) more theoretical objectives in language typology and the search for universals;
- 2) psycholinguistic explanation of L2 acquisition.

The weakness of contrastive analysis was pointed out by Broselow (1983, 292), as follows.

(6) The failure to predict errors from an examination of the linguistic systems of the first and second languages by no means constitutes sufficient grounds for abandoning the contrastive analysis hypothesis altogether.

Ellis (1994, 308) states that 'it was not surprising to see contrastive analysis lose ground to error analysis in the 1970s'. Here the broadened CA merged with EA.

3. Error Analysis (EA)

Contrastive Analysis (CA) worked well on the phonological level but failed to predict errors in other areas. This led to a growing interest in Error Analysis (henceforth, EA), which Stephen Pit Corder and colleagues established in the 1960s. EA was an alternative to CA and showed that CA was unable to predict many errors. EA started with the errors and then tried to find out their causes. James (1998, 1) defines Error Analysis 'as the process of determining the incidence, nature, causes and consequences of unsuccessful language'. EA is also referred to as the study of linguistic ignorance which investigates 'what people do not know and how they attempt to cope with their ignorance' (James, 1998, 62-63). The fact that L2 learners find ways to cope with their linguistic ignorance makes a connection between EA and L2 learner's strategies. Writers highlighted the points of weakness of CA (Richards, 1974; Dulay & Burt, 1975; Broselow, 1984; and many others) and pressed the claims of EA. But they should have concentrated more on errors not caused by MT interference which CA failed to predict. Early works in EA dealing with L2 data were taxonomic in the sense that they focused on collecting and classifying errors (James, 1998). For a time, the literature on EA tried to prove the existence of numerous errors not caused by MT interference.

Corder (1975, 207) suggests that Error Analysis can be distinguished from 'performance analysis' in the sense that 'performance analysis is the study of the whole performance data

from individual learners, whereas the term EA is reserved for the study of erroneous utterances produced by groups of learners’.

James (1998, 12) gives Corder’s five crucial points, originally published in Corder’s (1967) paper titled ‘The Significance of Learners’ Errors’, as follows.

(7) 1. L1 acquisition and L2 learning are parallel processes, they are ruled by the same mechanisms, procedures and strategies. Learning an L2 is probably facilitated by the knowledge of the L1.

2. Errors reflect the learners’ inbuilt syllabus or what they have taken in, but not what the teachers have put into them. So there is a difference between ‘input’ and ‘intake’.

3. Errors show that both learners of L1 and L2 develop an independent language system – a ‘transitional competence’.

4. The terms ‘error’ and ‘mistake’ should not be used interchangeably.

5. Errors are important because they (a) tell the teacher what he or she should teach, (b) are a source of information for the researcher about how the learning proceeds, and (c) allow the learners to test their L2 hypotheses.

Attitudes towards errors and aims, process and models of Error Analysis are now explained. Finally, the criticism of Error Analysis is presented.

3.1 Attitudes towards Errors

Attitudes towards language learner’s errors vary greatly. According to Corder (1967), there are two schools of thought towards these errors:

(A) The first school considers the occurrence of errors as nothing but a sign of the present inadequacy of our teaching techniques. That is, if the teaching methods were perfect, errors would never occur.

(B) The second school believes that we live in an imperfect world and however great our efforts, errors will always occur. Thus, we should concentrate on devising suitable remedial techniques for dealing with these errors.

In this research, I agree with the second school. Although I agree that the better the method of teaching, the fewer the learner’s errors, I disagree with the first school, as it is impossible to find a perfect method of teaching without errors. However perfect the method may be, the learner’s part cannot be ignored. In other words, a perfect teacher’s efforts will be useless with an inattentive or indifferent learner.

3.2 Aims of Error Analysis

There are a number of general statements which explain clearly what EA is concerned with: Nickel (1972) in German; Lange (1974) in French; and Corder (1973), Svartik (1973), Richards & Sampson (1974), and Schumann & Stenson (1975) in English. Whereas CA concentrates only on the cases of interlingual transfer, EA is concerned with both inter- and

intralingual errors. The aims of EA range from the practical to the theoretical side. Hammarberg (1979, 108) states that Rossipal (1972, 110) hopes that EA may provide relevant data within the following areas:

(8) • contrastive language description, prediction of potential interference;

- improving the description of the target language;
- describing general traits of linguistic errors;
- describing linguistic universals;
- improving language teaching.

3.3 Process of Error Analysis

Pedagogically, in order to know the principal learning difficulties of groups of learners, we need to apply three stages (Corder, 1975):

- a) Classification of errors;
- b) Evaluation of errors;
- c) Explanation of errors.

This is in line with James (1998, 5) who explains that EA ‘involves first independently or ‘objectively’ describing learners’ IL...and the TL itself, followed by a comparison of the two, so as to locate mismatches’. Each stage will now be discussed in detail.

3.4 Classification of Errors

Traditionally, errors were classified into four categories:

- Errors of omission: e.g. **I was not afraid the dog.*
- Errors of addition: e.g. **He did not let me to go.*
- Errors of substitution: e.g. **That lady is our new typewriter.*
- Errors of ordering: e.g. **I asked her how was she.*

In my view, such a classification is far from sufficient due to the following reasons:

- The items omitted, added, etc. need to be assigned to more general classes: prepositions, tense forms, questions, and so on, to be of benefit to the learner and to explain difficulties.
- It depends on our interpretation whether we regard an error as being one of e.g. omission or substitution. For example, **Dog is a faithful animal* can be classified under omission of definite article: *The dog is a faithful animal* or substitution of singular nouns for plural: *Dogs are faithful animals*. Corder (1981, 36) describes this classification, as follows:

(9) This superficial classification of errors is only a starting point for systematic analysis. It is only the evidence or data for an analysis. It is usual for teachers to go a bit further in their classification. They will usually state at what linguistic level the error has been committed.

A more adequate classification of errors is based on various levels of linguistic description, i.e. phonological (both speaking and listening), orthographic (spelling and punctuation), syntactic (grammatical), lexico-semantic (choice of vocabulary), and situational or socio-linguistic (appropriacy). These levels, in turn, can be sub-classified as systems, e.g. vowel or consonant systems, tense, aspect, number, gender or case.

Such classification is more abstract and systematic. But again one error may be assigned to more than one level of description depending on interpretation and reconstruction e.g. **Please bring me a flour*. This error may be classified as syntactic (substitution of *a* for *some*), or lexical or phonological (substitution of *flour* for *flower*).

More recent classifications describe errors in terms of violations of the grammatical or phonological rules according to various generative and transformational models of description.

3.5 Evaluation of Errors

The demand for accurate evaluation of errors arises from the need to:

- assess the learner's knowledge for grading/marking purposes;
- assign priorities to remedial procedures.

There are various linguistic approaches to the evaluation of error gravity:

a) James (1974) evaluates the degree of deviance of an error from the correct TL by assessing the number and nature of the rules violated.

b) Burt & Kiparsky (1975) differentiate between two types of errors: global and local.

- Global errors are deviations in the overall structure of sentences.
- Local errors are deviations in the structure of constituents of simple sentences and subordinate clauses.

c) Johanssen (1973) evaluates how much an error may disturb the effectiveness of communication according to its frequency, generality or comprehensibility. In addition, some researchers (Lindell, 1973; Olsson, 1973; James, 1975; among others) measure error gravity by the degree of tolerance shown towards it by native speakers or language teachers.

3.6 Explanation of Errors

Richards, J. C. (1971) identifies three main causes of error:

- Interlingual causes of error;
- Intralingual causes of error;
- Faulty teaching techniques or materials.

This agrees with Eckman (2008,101) who states that ‘it has been recognized since the early days of Error Analysis (Schachter, 1974) that learners’ errors are not the only measure of difficulty, and at times may not even be the most reliable measure’.

3.7 Models of Error Analysis

Hammarberg (1979, 108) mentions that Nickel (1972, 11) states three main aspects of the study of errors:

(10) a) description;

b) grading;

c) therapy.

Hammarberg (ibid) also mentions that a more detailed account of these aspects is found in Rossipal (1972, 109), as follows:

(11) a) types of errors;

b) frequency of errors;

c) points of difficulty in the target language;

d) cause of errors;

e) degree of disturbance caused by errors;

f) therapy.

In my view, however comprehensive these models may be, they miss out a further step: checking the effectiveness of the therapy. This can be done by having a regular reanalysis of the learner’s errors and a reassessment of the remedial measures. Without this step, the learner will be like a patient who is given medication without being followed up.

Bell (1974, 35) criticises EA by calling it ‘a recent pseudoprocedure in applied linguistics’. In his opinion, the EA data are of only poor statistical inference, errors are usually interpreted subjectively and it lacks predicative power. Schachter (1974) also criticises EA by pointing out that EA misses the strategy of ‘avoidance’: L2 learners may find ways to avoid producing L2 difficult structures. More criticism comes from Dulay et al (1982, 141-143) who states that ‘EA confuses explanatory and descriptive aspects, in other words the process and the product; and also that error categories lack precision and specificity’. In addition, Larsen-Freeman & Long (1991, 61) state that ‘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’. In that respect, EA is limited in its explanatory power. Finally, Cook (1993, 2) considers EA as ‘a methodology for dealing with data’ rather than a theory that explains the process of L2 acquisition. However, despite all the criticism, EA remains widely used, because it has proven to be an effective approach to L2 learners’ errors.

The next section explains a different theory of L2 acquisition (i.e. markedness theory) which does not rely on L1-L2 differences only, but takes into consideration both L1 transfer and language universals.

4. Markedness Theory

The markedness theory explains the role of typological markedness in the explanation of facts about L2 phonology (Eckman, 2008) and takes into account both native language transfer and language universals (Zampini, 2008). Markedness universals deal with occurrences and likelihood of occurrences of phenomena (Major, 2008). Markedness is defined in various ways (Chomsky & Halle, 1968; Hyman, 1975; Greenberg, 1978; Hawkins, 1984; Carr, 1993). One definition employs ‘implicational hierarchies: x is more marked than y if the presence of x implies the presence of y but not vice versa’ (Major, 2008). Markedness is explained by Eckman (1987, 60), as follows: ‘a phenomenon A in some language is considered to be more marked than a phenomenon B if the presence of A in a language implies the presence of B, but the presence of B does not imply the presence of A’. For example, final voiced obstruents imply voiced obstruents in initial and medial position but not vice versa (Eckman, 1977, 1985; Eckman & Iverson, 1994). Markedness can also refer to statistical frequencies. In L1 acquisition, markedness means that less marked structures are acquired before more marked structures. Eckman (2008, 96) explains the principle of markedness, as follows.

(12) The idea behind this concept was that binary oppositions between certain linguistic representations (e.g. voiced and voiceless obstruents, nasalized and oral vowels, open and closed syllables) were not taken to be simply polar opposites. Rather, one member of the opposition was assumed to be privileged in that it had a wider distribution, both within a given language and cross languages ... the member of the opposition that was more widely distributed than the other was designated as unmarked, including that it was, in some definable way, simpler, more basic and more natural than the other member of the opposition, which was in turn defined as the marked member.

Typological markedness has been applied to many linguistic expressions such as phonological, lexical, morphological and syntactic structures. This section focuses on the role of markedness in L2 phonology, more specifically, the claim that unmarked structures are easier to learn than the corresponding marked ones (Eckman, 2008).

Based on the construct of typological markedness, two L2 phonology hypotheses have been formulated: the Markedness Differential Hypothesis (MDH) (Eckman, 1977) and the Structural Conformity Hypothesis (SCH) (Eckman, 1991). Each hypothesis is now considered in turn.

It has been shown by research findings that predicting areas of difficulty and explaining L2 phonological acquisition is not as a straightforward contrastive analysis of the native language and the second (Zampini, 2008). Eckman’s (1977) Markedness Differential Hypothesis is, in fact, a reformulation of the Contrastive Analysis Hypothesis (CAH) (Lado, 1957) by incorporating the notion of typological markedness into CAH. Therefore, the MDH

postulates that different sounds which are typologically marked are only difficult to learn. That is, the more marked a rule, the more difficult it is to learn. Eckman (1977, 321) proposes the MDH, as follows.

(13) The Markedness Differential Hypothesis (MDH)

The areas of difficulty that a language learner will have can be predicted such that

(a) Those areas of the target language which differ from the native language and are more marked than the native language will be difficult.

(b) The relative degree of difficulty of the areas of the target language which are more marked than the native language will correspond to the relative degree of markedness.

(c) Those areas of the target language which are different from the native language, but are not more marked than the native language will not be difficult.

The MDH in (13) predicts that (a) marked L2 patterns are more difficult to learn than unmarked ones, (b) marked L2 patterns that are less marked than the patterns of the mother tongue are not difficult to learn, and (c) marked L1 patterns are less likely to be transferred than unmarked ones. This shows that not all L1-L2 differences will cause equal difficulty for the L2 learner (Eckman, 2008). Evidence supporting the MDH showed that L1-L2 differences alone could not be used to explain L2 learners' errors, but it was necessary to employ typological markedness to explain the L2 learners' difficulties (Eckman, 2008). Various studies have found that numerous predictions of the MDH are true (Major, 2008), for example, in studies of voicing contrasts (Yavas, 1994; Major & Faudree, 1996), epenthesis in initial consonant clusters in Egyptian learners of English (Broselow, 1983), fossilisation in Brunei English (Mossop, 1996) and speech pathology (Gierut, 1986; Hodson & Edwards, 1997).

The MDH and its typological markedness approach received some criticism. Eckman (2008, 100) states that 'the methodological issues that have confronted the MDH in the literature on L2 phonology stem from the fact that the MDH is completely programmatic with the Contrastive Analysis Hypothesis (CAH) in two important respects. First, both the MDH and the CAH make claims about L2 learning difficulty, and second, both hypotheses base their claims about such difficulty, at least in part, on the areas of difference between the NL and TL'. There were two problems with the MDH. First, how one measures learning difficulty. Second, as Eckman (2008, 101) points out 'some reported error patterns corresponded directly to markedness principles, but the errors did not occur in an area of difference between the NL and TL. In this situation, the spirit of the MDH seemed to be invoked, in that more marked structures caused more errors than the corresponding less marked structures; however, the letter of the MDH prevented the hypothesis from making any predictions'. Regarding the first problem, Eckman (2008) explains that the vast majority of work in L2 phonology has measured difficulty in terms of learner's errors: the more errors made on a structure, the more difficult that structure is interpreted to be. However, learner's errors are not the only measure of difficulty and at times may not even be the most reliable measure (Schachter, 1974). Therefore, the Similarity Differential Rate Hypothesis (Major & Kim,

1996) addressed this problem by considering rate of acquisition, rather than difficulty, as a more insightful measure of learning. To deal with the first problem, above and the second problem with the MDH (i.e. that NL-TL differences are crucial to the predictions), Eckman (2008) formulated an alternative hypothesis: the Structural Conformity Hypothesis (SCH), which is now discussed.

Eckman (2008, 107) points out that ‘the Structural Conformity Hypothesis addresses the shortcomings of the Markedness Differential hypothesis. First, by making predictions about the nature of interlanguage grammars rather than about learning difficulty, and second, by expanding the domain of the hypothesis beyond only areas of difference between the NL and TL. The SCH simply asserts that ILs will obey the same universal generalizations as primary languages’. The SCH is stated by (Eckman, 1991, 24), as follows.

(14) The Structural Conformity Hypothesis (SCH)

The universal generalizations that hold for primary languages hold also for interlanguages.

The strongest kind of evidence which supports the SCH is an interlanguage pattern that is neither like the native language nor the target language, but nevertheless obeys the universal patterns of some of the world’s languages. Eckman (1991), Carlisle (1997, 1998) and Eckman & Iverson (1994) are examples of this evidence. The case of consonant clusters in onsets or codas are considered in each of these studies, where a greater number of clusters and more marked clusters are allowed in the TL, than in the NL. According to Eckman (2008), these studies supporting the SCH had one point in common: in each instance the IL grammars contained cluster types that were more complex than those allowed by the NL, but not as complex as those required by the TL. In this respect, the IL grammars fell between the NL and TL, but always conformed to the applicable universal generalisations.

The SCH has provided an explanation for a number of different facts about L2 phonology, however, some SLA researchers have taken the position that markedness, in general, and the SCH, in particular, are not viable explanatory principles. There are two main arguments for this position. The first is that markedness itself is simply a fact to be explained, and as such does not offer an explanation. This position is taken by Archibald (1998, 150) and is stated in (15).

(15) My general assessment of this sort of typological universals approach to second language acquisition is that it provides an interesting *description* of the phenomena to be explained. I’m less sure of their status as an explanation of the observed facts. All in all, I prefer to assume some sort of structural explanation.

The second position was taken by Gass & Selinker (2001, 154) who assert that invoking typological universals as explanatory principles raises more questions than it answers. This position is represented in (16).

(16) For implicational universals to have any importance in the study of second language acquisition, two factors must be taken into consideration. First, one must understand why a universal is universal. It is not sufficient to state that second languages obey natural

language constraints because that is the way languages are. This only pushes the problem of explanation back one step.

Despite the criticism of the Markedness Differential Hypothesis (MDH) and the Structural Conformity Hypothesis (SCH), these two hypotheses have had considerable influence in the literature on L2 speech production (Zampini, 2008). In addition, typological markedness has played a significant role in the explanation of L2 phonology.

The next section explains a different and very common theory of L2 acquisition (i.e. Universal Grammar) which shows how L2 acquisition occurs on the basis of L1 acquisition (Chomsky, 1981).

5. Universal Grammar (UG)

Universal Grammar (UG) is the most influential theory of language acquisition. In this linguistic theory (UG), Chomsky (1981) tried to explain not only what constitutes knowledge of language, but also how this knowledge of language is acquired. UG challenged the behavioural model (Skinner, 1959) which proposed that human infants are born with blank sheets in their minds, and that through the process of stimulation, response and reinforcement, children gradually get in mind the vocabulary and grammar of their mother tongue. Universal Grammar consists of a set of principles, which are common to all languages, and a set of parameters, which have language-specific values. Grammars of individual languages are therefore the result of the variation of the settings of the different parameters plus language-specific rules. Cook (1991, 34) states that ‘Universal Grammar (UG) sees the knowledge of a grammar in the mind as made up of two components: ‘principles’ that all languages have in common and ‘parameters’ on which they vary. All human minds are believed to honour the common principles that are forced on them by the nature of human minds that all their speakers share. They differ over the settings of their parameters for particular languages’.

Cook & Newson (1996, 81) suggest the following diagrams as an attempt to determine the components of a UG model of L2 learning.

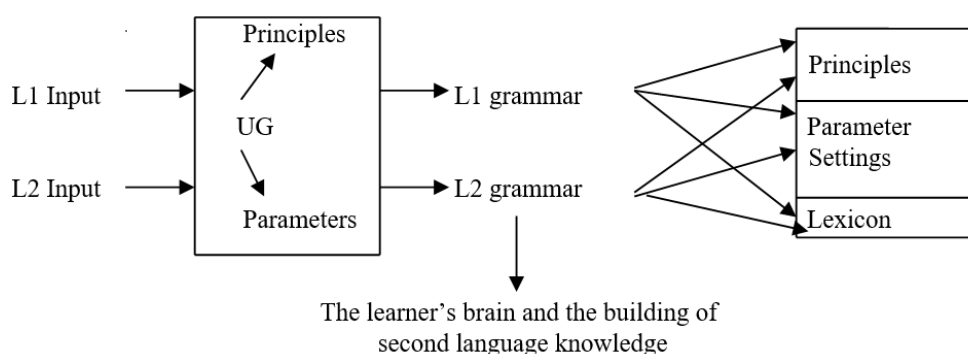


Figure 1. The Components of a UG Model of L2 Learning (Cook & Newson, 1996, 81)

For example, a ‘principle’ says that all sentences in all languages have subjects. Even those sentences without obvious subjects have their implicit subjects either semantically or

syntactically. For the 'subject' matter, there is a 'parameter' called 'pro-drop', which determines whether in a specific language, the subject of a sentence should be obviously present or not. In UG, Chomsky proposes that all people have a Language Acquisition Device (LAD) which enables them to listen to a language, decipher its rules and to make or understand utterances that they have never heard. Direct instruction, practice and drills play no roles in their L1 acquisition. This proposes that the human mind must have some built-in mechanism that helps the learner in the process of acquisition. This built-in mechanism is referred to as Universal Grammar and is sometimes substituted by 'mental grammar' (Ellis, 1985; Fortos, 2001).

Originally, UG theory did not concern itself with L2 learning (L1 acquisition only). However, Chomsky suggests that by providing people with the correct input, the LAD enables them to acquire the L2 in the same L1 manner. Cook (1991, 117) states that 'learning in the UG model is a straightforward matter of getting the right input. In this theory language input is the evidence out of which the learner constructs knowledge of language'. The UG principles were adopted by second language researches and were applied in the field of L2 acquisition. From a UG perspective, learning the grammar of a second language is simply a matter of setting the correct L2 parameters. Universal Grammar also provides a good explanation for language transfer (Hilles, 1986). For example, Spanish and Cairene learners of English who produce 'Is raining' instead of 'It is raining' are still using the pro-drop parameter settings as in Spanish and Cairene Colloquial Arabic respectively.

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 & Joup, 1988). The argument in favour of UG in L1 is also valid for L2 learners who can attain high levels of linguistic knowledge which are not due to input or instruction alone. Felix (1988, 286-287), for instance, shows that L2 learners do have access to UG principles 'which are neither learnable on positive evidence nor transferable from corresponding structures of the learner's mother tongue'. Similarly, Bulut (1996) and Cem (1996) report that the acquisition of the L2 reflexive system by advanced Turkish learners of English is not due to grammar instruction or input alone. Linguists have been debating for a long time over this issue: whether UG applies to L2 acquisition as it is the case in L1 acquisition. As Ellis (1994) points out, it is difficult to reach a 'verdict' among these different studies. However, there are four different positions regarding the access of UG in L2 acquisition. These four positions are the direct access model, the indirect access model, the no-access model and the dual model. Cook (1985, 12), proposes three possibilities using the following diagram.

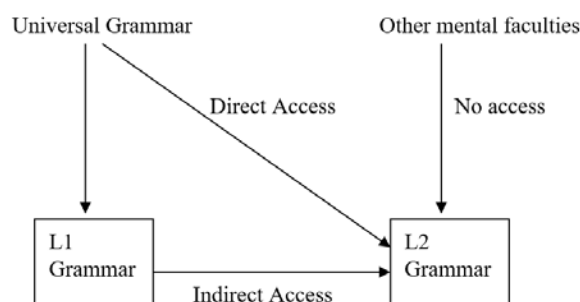


Figure 2. Access to Universal Grammar in L2 Acquisition (Cook, 1985, 12)

Each one of the four positions is now discussed in detail.

In the direct access model, some researchers (e.g. Ritchie, 1978; Otsu & Naoi, 1986) believe that UG is available directly to L2 learners in the sense that they have access to it separately from the L1. According to Cook (1993), in this model, L2 learners learn exactly the same way as L1 learners; they set values for parameters according to the L2 evidence they encounter without any other influence. The studies that support this model, tested the availability of some principles in learning some L2 properties by L2 learners which do not exist in their L1. For example, Otsu & Naoi (1986) studied Japanese L1 learners of L2 English by testing the operation of the Subject-Dependency Principle in the L2 English. The subjects were 11 female teenagers (ages 14 – 15) who had studied English for two years. The results strongly supported Otsu and Naoi’s claim of L2 learners’ direct access to UG. They found that most of the subjects were guided by UG and produced the tested L2 English items correctly. However, some of those who deny that UG is available for L2 restrict their claim to adult L2 learners and consider that the subjects of this study were too young. Another study by Ritchie (1978) supported this direct access model. Ritchie has tested the Right Roof Constraint (RRC) and used a grammaticality judgement test. He found that the RRC was operating and suggested that UG was accessible to his subjects. However, similar to Otsu & Naoi, (1986), some researchers rejected his study, because most of his subjects were not adult. These two studies received some criticism. However, they seem to support that the Underdetermination Principle (i.e. the production of new sentences by L1 acquirers) which shows the role of UG in L1 acquisition, is also available in L2 acquisition. In addition, these studies showed that L2 learners were able to produce sentences that they neither have in their L1 nor learned in the L2.

In the indirect access model, researchers (e.g. White, 1986; Flynn, 1987) propose that UG operates in L2 acquisition, but via the L1. In other words, L2 learners start with the L1 principles and parameters, then they try to reset the L1 parameters when their parametric values differ from the L2 (Cook, 1993). This happens on the base of L2 input and with activity of UG. The ‘pro-drop’ parameter in adult L2 acquisition was investigated by White (1986) by comparing French learners with Spanish learners of English (French and English are non-pro-drop languages, while Spanish is a pro-drop language). She found that sentences with null subject were produced by L2 Spanish learners of English, at first stages, much more

than L2 French learners of English. She concluded that L1 parameters especially at first stages had influenced L2 Spanish learners.

In the no-access model, UG is not available to L2 learners. In other words, UG is accessible to L1 parameters only and the parameter settings in the L1 cannot be reset for L2 acquisition (i.e. UG has nothing to do with L2 learning at all (Cook, 1993)). Researchers (e.g. Clahsen & Muysken, 1986; Schachter, 1988, 1989), who support this model, claim that L1 and L2 acquisition has major differences. Clahsen & Muysken (1986) investigated the availability of Universal Grammar to adult and child learners by comparing the acquisition of the word order in German by German children with L2 learners from different L1 backgrounds. Their study has shown that children start with subject-object-verb (SOV) order and gradually acquire subject-verb-object (SVO) order, whereas L2 learners start with SVO and learn SOV. They argue that, in the case of children, this is because of 'learning capacities specified to languages', but in the case of adults, (Clahsen & Muysken, 1986, 111) refer to 'acquisition strategies which may be derived from principles of information processing and general problem solving strategies'. Schachter (1988, 1989) tested the accessibility of the Subjacency principle through grammaticality judgement test. The results supported the claim that UG is unavailable to L2 learners, since they did not use the principle for structures that they knew. Bley-Vroman (1989) has argued also that L2 learning inefficiency is because of the unavailability of UG to L2 learners and that their L2 acquisition occurs through other mental processes.

The duel model (Ellis, 1994) is also named 'the competition model' by Felix (1985) and suggests that L2 learners have partial access to UG. These two researchers state that the language specific system, which is equivalent to UG, competes with the problem solving system for acquisition in light of L2 input. While children achieve full competence by having complete access to UG only, the problem solving system blocks adults' access to UG. This explains why native-like competence is not achieved by adults.

The models and studies above show that the question of availability of UG in L2 acquisition is not clear. There are different (sometimes opposite) opinions in these studies. This suggests that it is not an easy task to measure the L2 learner's competence or to be sure of access to UG in L2 acquisition. However, most of the researchers stand between the indirect access position and the no-access position.

There are some advocates and critics of Universal Grammar as a theory of L2 acquisition, although a number of hypotheses about L2 acquisition have been generated by researchers using UG. UG is regarded as the best theory of grammar by Generative theorists because of its descriptive and explanatory adequacy (Ellis, 1994). It is also suggested by (Ellis, 1985) that UG has helped to overcome one of the major problems of contrastive analysis by restricting the effects of L1 transfer to 'non-core' features or parameters. This means that UG can be used to help predict which differences between L1 and L2 result in L2 learning difficulties. Brown (2007, 214) advocates UG by stating that 'the hope is that by discovering innate linguistic principles that govern what is possible in human languages, we may be better able to understand and describe contrasts between native and target languages and the

difficulties encountered by adult second language learners. Research on UG has begun to identify such universal properties and principles, and therefore represents an avenue of some promise'. Fortos (2001, 269) also mentions that Chomsky in the 1980s developed a 'radically different way of looking at grammar which has become popular in recent years; a grammar tries to see what human languages have in common because of the nature of the human mind'. However, other researchers such as McLaughlin (1987) criticises UG theory because only the acquisition of only a small set of syntactic phenomena is explained by its empirical evidence instead of covering a wider range of phenomena as a general L2 theory. In addition, still for many UG theorists innate mechanisms for language acquisition atrophies especially after puberty which is generally assumed to be the critical period for natural language acquisition (Gregg, 1984; Bley-Vroman, 1988; Clashen & Muysken, 1989). Finally, the main shortcoming of UG in describing L2 acquisition is that the psychological processes of learning a language are not dealt with.

In recent years, some phonologists have favoured an Optimality Theoretic (OT) (Prince and Smolensky, 1993) approach instead of the parametric model proposed by Chomsky (UG). In OT, UG is viewed as a set of principles and a set of constraints, instead of parameters. The way language-specific grammars differ depends on the way that the constraints are ranked and interact. In addition, unlike parameters, constraints are violable.

6. Monitor Theory

In the late 1970s, the linguist Stephen Krashen developed the Monitor Theory, often known as the Input Hypothesis. By the 1980s, this theory had become the most influential and well-known theory of L2 acquisition. It is an overall theory of L2 acquisition that had important implications for language teaching. Krashen suggested that 'comprehensible input' (CI), language input that can be understood by learners, is very crucial in language acquisition. Learners' underlying linguistic competence can be increased only by understanding spoken and written language input and language output does not affect learners' ability. Furthermore, Krashen claimed that the subconscious language *acquisition* is the only way of advancing linguistic competence and that conscious *learning* is not a source of spontaneous language production. Finally, the learner's mood is crucial in learning which is impaired by the learner's stress (Krashen, 1985). Krashen's Monitor Theory was based on Chomsky's concept of a LAD (Language Acquisition Device) which is the main part of the Theory of Universal Grammar, as follows: L2 acquisition begins after the LAD is activated by only 'comprehensible input' to L2 learners (Krashen, 1977). Krashen states that without comprehensible input, the L2 learner perceives a group of words as incomprehensible noise which the LAD processes.

The Monitor Theory has five hypotheses: the Input Hypothesis, the Learning-Acquisition Hypothesis, the Monitor Hypothesis, the Natural Order Hypothesis and the Affective Filter Hypothesis. Each hypothesis and its criticism are now explained in detail.

6.1 The Input Hypothesis

The Input Hypothesis is regarded as the most influential hypothesis in L2 acquisition, as it provides theoretical and practical foundations for the way the knowledge is internalised by L2 learners. It is related to acquisition, not learning. The innate approach is followed by Krashen by applying Chomsky's Government and Binding theory and concept of Universal Grammar (UG) to L2 acquisition. He does so by proposing a Language Acquisition Device that uses L2 input to define the L2 parameters within the constraints of UG and to increase the L2 learner's proficiency. This hypothesis states that when language input that is more advanced than L2 learners' current level is comprehended their knowledge of the language progresses. This level of input is called 'i+1' by Krashen, where 'i' is the language input and '+1' is the next stage of language acquisition (Krashen, 1977). Krashen (1986, 100) states that 'the acquirer understands (via hearing or reading) input language that contains structure 'a bit beyond' his or her current level of competence'. Using context, knowledge of the world and extra linguistic information can compensate for this gap (Krashen, 1987). He further adds that enough i+1 is a must for acquisition to occur, and this happens when communication takes place. When input is understood, then i+1 will be provided automatically. Krashen hypothesises that language acquisition occurs by first understanding the message and then acquiring its structures, which is opposite to the old view of language learning (Hatch, 1978). As summarised by Cook (1993), Krashen's (1985) evidence for the Input Hypothesis is as follows:

people speak to children acquiring their L1 in special ways people speak to L2 learners in special ways L2 learners often go through an initial Silent Period the comparative success of younger and older learners reflects provision of comprehensible input the more comprehensible input the greater the L2 proficiency lack of comprehensible input delays language acquisition teaching methods work according to the extent that they use comprehensible input immersion teaching is successful because it provides comprehensible input bilingual programs succeed to the extent they provide comprehensible input.

The Input Hypothesis received some criticism. First, the novelty of i+1 formula is under question and is difficult to define (Brown, 2007). Second, Ellis (2003, 47) challenged the idea that acquisition takes place with enough i+1 by arguing that 'input is necessary but not sufficient for acquisition to take place'.

6.2 The Learning-Acquisition Hypothesis

Krashen (1985) claims that the Learning-Acquisition Hypothesis is the most basic of his five hypotheses and believes that L2 competence can be developed in two independent ways: acquisition and learning. Acquisition is by using language for real communication and learning by knowing about language (Krashen & Terrell, 1983). Acquisition is a subconscious process which allows the learner to obtain L2 competence naturally. Krashen states that this kind of competence is accumulated subconsciously with no awareness. Therefore, it is only a mere language 'pick up' (Brown, 2007). In addition, meaningful interaction in the TL is required for acquisition, during which the meaning rather than form is focused on by the acquirer (Krashen, 1977). On the other hand, language learning is studying

the features of a language in a conscious and intentional manner, as in traditional classrooms. That is learning is a conscious knowledge compilation process. An explicit teaching procedure is applied here and the L2 rules should be extended by the learner to a similar context. Such knowledge is called 'know-about' knowledge by Krashen (1987). This shows that in the acquisition process, L2 speakers do not focus on the correctness of their speech, but in the act of communication itself, whereas in the learning process, they focus on the details about the L2 language (like the rules of grammar or correct verb conjugation). According to Cook (1993), the differences between L2 acquisition and learning in Krashen's Monitor Theory are as follows:

(17)

Acquisition	Learning
implicit, subconscious	explicit, conscious
informal situations	formal situations
uses grammatical 'feel'	uses grammatical rules
depends on attitude	depends on aptitude
stable order of acquisition	simple to complex order of learning

For Krashen, learning is less effective than acquisition. He also believes that acquisition, not learning leads to fluency in L2 and that knowledge must be acquired by L2 learners as much as possible (Brown, 2007). All in all, Krashen believes that the relationship between acquisition and learning is not bidirectional: learning may never lead to acquisition and vice versa.

The distinction between learning and acquisition based on the definition of consciousness was criticised. For example, McLaughlin (1990), refutes such distinction since it is difficult for psychologists to give an exhaustive definition of consciousness. Therefore, it is not plausible to extend this distinction to the process of language acquisition (Brown, 2007). Gregg (1984) also rejects Krashen's learning-acquisition hypothesis. Gregg concludes that the Monitor cannot be used under normal conditions. Finally, some research (e.g. Norris & Ortega, 2000) shows that contrary to this hypothesis, learners can improve their communicative competence through form focused instruction.

6.3 The Monitor Hypothesis

The Monitor Hypothesis is used by Krashen to explain the relationship between acquisition and learning and it pertains to the operational application of learned knowledge. It shows how learned knowledge may be useful to achieve fluency. This hypothesis asserts that a learner's system acts as a monitor or editor to what they are producing. In other words, while spontaneous speech is produced only by the acquired system, what is spoken is checked by the learned system. Krashen & Terrell (1983) suggests that conscious learning can only be used as a Monitor or an editor. Before an utterance is produced by the learner, it is internally scanned for errors and corrections are made by the learned system. Self-correction occurs when the Monitor is used by the learner to correct a sentence after it is uttered. Faster initial progress by adults than children is then predicted by the Monitor Hypothesis, as this monitor

is used by adults when producing L2 utterances before the ability for natural performances is acquired.

According to Krashen, for the Monitor to be successfully used, three conditions must be met: the learner must (a) know the rule, (b) be focused on correctness (form) and (c) have time to use the monitor. In addition, the simplicity of learned knowledge is very important. Monitoring seems to be more efficient when the learned rules are easy to apply. Monitor users are divided into three types by Krashen: over-users, optimal users and under-users. Over-users are always obsessed with the grammaticality of their speech and therefore over-use the monitor at the expense of their fluency. Monitoring is used by optimal users when it does not interfere in the process of communication. Finally, conscious knowledge is not used by under-users, because they do not have a good command of it or prefer not to use it.

Krashen's Monitor Hypothesis has been criticised as well, since the use of the monitor has many difficulties making it a weak language tool. First, it is difficult to meet the 'knowing the rule' condition, because not every rule that is taught is learned by even the best students. In addition, not every language rule is included in a textbook or taught by the teacher. Second, 'having time to use the monitor' makes the speaker focus on form rather than meaning, resulting in the production and exchange of less information, thus slowing the flow of conversation. Third, our language competence is not only due to language rules: 100% language competence is not only provided by acquisition. Therefore, it is recommended by Krashen to use the monitor when it does not interfere with communication, such as while writing. Krashen is also criticised for relegating language monitoring to a peripheral position in language acquisition. It is seen as a post-learning process, a tool for use of language in certain conditions. However, some researchers regard monitoring as a basic learning strategy (Rubin, 1975). Finally, monitoring is regarded as one of five major aspects of successful language learning (Ellis, 2003).

6.4 The Natural Order Hypothesis

Krashen (1977, 1981) believes that L2 acquisition follows a natural order in the sense that every L2 learner will acquire the rules of that language in a predictable order. This means that the sequence (e.g. morphemes) of acquisition can be predicted. For example, the plural 's' (boys) will be acquired before the third person singular 's' (eats) by students learning English, regardless of their cultural and linguistic background. This is because this grammatical aspect of third person singular 's' will not be used by students in L2 conversations until they have naturally acquired it. Instructional sequences do not affect the natural order of acquisition. This hypothesis was based on the morpheme studies by Dulay and Burt, which found that L2 learners predictably learned certain morphemes before others during the L2 acquisition. Based on different studies on L1 acquisition (e.g. Brown, 1973; de Villers & de Villers, 1973), Krashen concludes that L2 acquisition occurs in a natural order. Despite the differences between L1 and L2 acquisition, L2 learners were almost consistent in the order of acquisition (Dulay and Burt, 1974; Kessler & Idar, 1977, as cited in Krashen, 1977).

The Natural Order Hypothesis also received some criticism. For example, Gregg (1984) argues that it is fallible to generalise that the results of a study on the acquisition of a limited set of English morphemes to L2 acquisition as a whole. Morpheme studies do not indicate that other linguistic features (phonology, syntax, semantics and pragmatics) are similarly acquired by L2 learners in any predictable sequence (Gregg, 1984). In addition, the considerable influence of L1 on L2 acquisition is not accounted for by this hypothesis. In fact, the results of other studies (e.g. Zafar, 2009) indicate that L2 is acquired by learners in different orders, depending on their NLs. Therefore, despite what this hypothesis claims, grammatical structures are not necessarily acquired by L2 learners in a predictable order.

6.5 The Affective Filter Hypothesis

Krashen (1987) hypothesises that the ‘affective filter’ is a very important barrier towards L2 acquisition. Negative emotional (affective) responses to one’s environment cause the affective filter which is an impediment to learning or acquisition. This filter impedes the process of absorbing L2 input and transforming it into intake. ‘Input’ is learners’ direct contact with L2 and ‘intake’ is their L2 processing in a way that can contribute to learning. Krashen (1985, 100) states that ‘a mental block, caused by affective factors ... that prevents input from reaching the language acquisition device’. Krashen claims that all people possess a ‘filter’ which can be in a low or high position. When the filter is in a low position, language is allowed to enter the person’s LAD and is acquired, whereas language is prohibited from entering the LAD and therefore its acquisition is restricted by a high position. When the L2 learner feels comfortable and non-threatened in the learning environment, a low affective filter exists and a high affective filter exists when he is too pressured by outside factors to relax and allow the acquisition process to occur. Therefore, it is important that the L2 teacher maintains a relaxed and enjoyable learning environment to ensure L2 acquisition. Krashen also claims that the filter is affected by three factors: self confidence, anxiety and motivation. First, the affective filter will be lowered by a good amount of self confidence in order to let the input in. Second, the more the L2 learner’s anxiety is, the higher the amount of resistance against absorption of input and hence the process of L2 acquisition is obstructed. Third, the more motivated the L2 learner is, the better the L2 acquisition will be. According to Krashen (1982), the lowering of the affective filter can be prevented by two prime issues. The first is not allowing for a silent period (expecting the student to speak before they have received an adequate amount of comprehensible input). The second is the early correction of L2 learners’ errors.

Like Krashen’s other four hypotheses, the Affective Filter Hypothesis was also criticised. This criticism questioned the claim of this hypothesis that individual variation in L2 acquisition can be accounted for by affective factors alone. Krashen claims that children do not have the affective filter that prevents most adult L2 learners from mastering their L2 (Zafar, 2009). Such claim cannot be fully approved because children also experience differences in non-linguistic variables such as motivation, self-confidence and anxiety that account for child-adult differences in L2 learning. In addition, a native-like proficiency is acquired by adults in many cases (Brown, 2007).

The Monitor Theory (the Input Hypothesis Model) and its five hypotheses are presented in the following diagram.

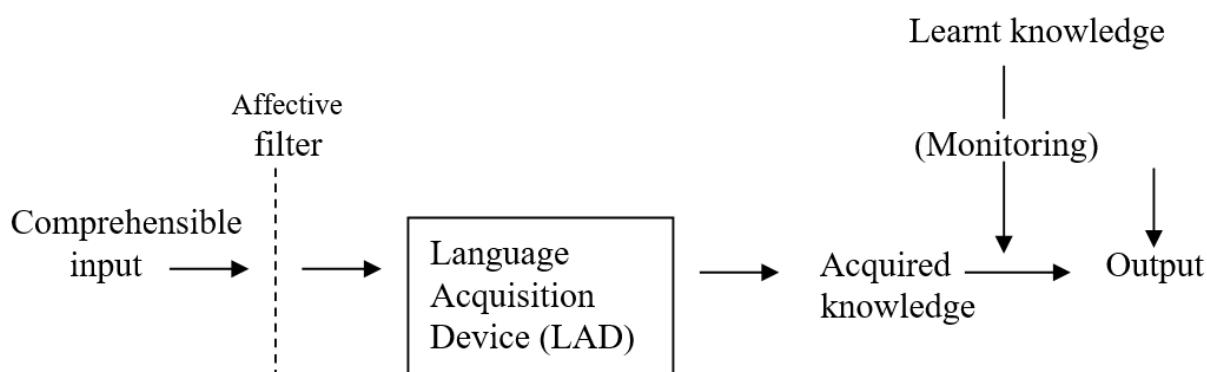


Figure 3. The Input Hypothesis Model of L2 Learning and Production (adopted from Krashen, 1982, pp. 16 and 32; and Greg, 1984)

Krashen's Monitor Theory, like other L2 acquisition theories, had some proponents and opponents. Some advocates consider it as a macro theory attempting to cover most of the factors involved in L2 acquisition such as age, personality traits, classroom instruction, innate mechanisms of language acquisition, environmental influences and input. For example, Lightbown (1984, 246) considers Monitor Theory as a combination of 'a linguistic theory (through its 'natural order' hypothesis), social psychological theory (through its 'affective filter' hypothesis), psychological learning theory (through its acquisition-learning hypothesis), discourse analysis and sociolinguistic theory (through both the comprehensive input hypothesis and the 'monitor' hypothesis)'.

Ellis (1990, 57) also praises 'the lucidity, simplicity and explanatory power of Krashen's theory'. Although Krashen's theory of L2 acquisition is acknowledged by McLaughlin (1987), he finds it inadequate due to the unclear definitions of some of its central assumptions and hypotheses and this makes them not readily testable. McLaughlin (1987, 56) states that 'Krashen's theory fails at every juncture ... Krashen has not defined his terms with enough precision, the empirical basis of the theory is weak, and the theory is not clear in its predictions'. In addition, Gregg (1984, 94) points out that 'each of Krashen's hypotheses is marked by serious flaws: undefinable or ill defined terms, unmotivated constructs, lack of empirical content and thus of falsifiability, lack of explanatory power'. Finally, Monitor Theory was also criticised by the advocates of Universal Grammar (Nativist Theory) and by psychologists focusing on skills acquisition. Despite the various criticisms, Krashen's Monitor Theory of L2 acquisition played an important role in L2 learning and led to the discovery of orders of acquisition.

8. Comparison of Five Theories of L2 Acquisition

This section presents a comparison of the above five theories of L2 acquisition and their way of analysing L2 learners' interlanguage. These theories are Contrastive Analysis (CA), Error

Analysis (EA), Markedness Theory, Universal Grammar (UG) and Monitor Theory. This comparison is presented in Table 1.

Table 1. Comparison of Five Theories of L2 Acquisition

L2 Theory	Author	Analysis of L2 Acquisition	Criticism
<u>Contrastive Analysis Hypothesis (CAH):</u> <u>L1 Transfer:</u> - Positive Transfer - Negative Transfer Interlingual Errors	Lado (1957) Fries (1945)	CA explains L2 learners' acquisitional difficulties on the basis of L1-L2 differences and similarities. Different L1 and L2 features are difficult to acquire, whereas similar features are easy to acquire. L2 learners' errors are due to L1 negative transfer. <u>The Strong CAH:</u> A systematic CA could predict L2 learners' difficulties (i.e. interlingual errors) and remedial teaching materials could be devised. <u>The Weak CAH:</u> A comparison between L1 and L2 might help explain the difficulties evident from the L2 learners' errors.	- CA predicts limited errors and interlingual errors only. - Some similar L1 and L2 features were difficult to acquire, whereas some different features were easy to acquire. - L2 learners' errors are not only due to L1 interference.
<u>Error Analysis (EA):</u> Interlingual and Intralingual Errors	Corder (1967)	EA explains L2 learners' errors by comparing the learner's interlanguage with the L2 norm. It explains both interlingual (L1 negative transfer) and intralingual errors. Intralingual errors are not related to L1 negative transfer and are due to other factors such as faulty teaching techniques or materials, overgeneralization of L2 rules, age of L2 acquisition and individual differences.	- EA misses the L2 learner's correct forms by counting incorrect forms only. - EA also misses 'avoidance': L2 learners may find ways to avoid producing L2 difficult structures.
<u>Markedness Theory:</u> A. Markedness Differential Hypothesis (MDH) B. Structural Conformity	Eckman (1977) Eckman (1977) Eckman (1991)	Markedness Theory is the CAH plus typological markedness. It explains both the L2 learners' difficulties (CAH) and the degree (levels) of these difficulties (markedness). MDH states that L2 structures that are both different and more marked than corresponding L1 structures will cause learning difficulty. Unmarked structures are acquired before and easier to acquire than marked structures. SCH states that interlanguage and primary languages obey the same set of universal	- Some L2 errors did not occur in an area of difference between L1 and L2. - The MDH did not explain why L2 learners altered the marked structures in the way they did. - Markedness is a fact to be explained (Archibald, 1998). - Using typological universals as explanatory

Hypothesis (SCH)		generalizations.	principles raises more questions than it answers.
Universal Grammar (UG): (Principles and Parameters Theory) Language Acquisition Device (LAD) <u>L2 Access to UG:</u> A. The Direct Access Model B. The Indirect Access Model C. The No-access Model D. The Dual Model	Chomsky (1981)	UG explains L2 acquisition on the basis of L1 acquisition. UG consists of a set of principles (i.e. universal rules) and a set of parameters (language-specific variables). UG suggests that human minds have a Language Acquisition Device (LAD) that helps the learner in the process of acquisition. In UG, L2 acquisition is a matter of setting the correct L2 parameters. There are four positions regarding L2 access to UG: direct access as L1 learners, indirect access via L1, no-access and partial (dual) access.	- The acquisition of only a small set of syntactic phenomena is explained by its empirical evidence (McLaughlin, 1987). - Psychological processes of learning a language are not dealt with.
Monitor Theory: <u>Five Hypotheses:</u> A. Input Hypothesis B. Acquisition- Learning Hypothesis C. Monitor Hypothesis D. Natural Order Hypothesis E. Affective Filter Hypothesis	Krashen (1985)	This theory is based on Chomsky's (1981) concept of a LAD, as follows: L2 acquisition begins after the LAD is activated by 'comprehensible input' to L2 learners. This theory has five hypotheses. The Input Hypothesis states that learners progress in their language knowledge, when they comprehend language input that is more advanced than their current level. The Acquisition-Learning Hypothesis states that L2 competence can be developed in two independent ways: acquisition and learning. Acquisition is an implicit and subconscious process, whereas learning is an explicit and conscious process. The Monitor Hypothesis states that a learner's system acts as a monitor or editor to what they are producing. The Natural Order Hypothesis states that L2 acquisition follows a natural, predictable order. Finally, the Affective Filter Hypothesis states that L2 acquisition is impeded by L2 learner's affective filter depending on negative, emotional responses to learner's environment.	- It has no clear definitions of its central assumptions and hypotheses and thus are not readily testable (McLaughlin, 1987). -Each hypothesis is marked by serious flaws, and thus the theory lacks falsifiability and explanatory power (Gregg, 1994).

9. Conclusions

This paper has explained five theories of L2 acquisition and their contributions to L2 learning as follows. Contrastive Analysis (CA) claimed that all errors in L2 learning could be predicted from a comparison of the NL and the TL and the interlingual reasons behind these errors could be explained. Transfer from L1 to L2 is due to differences between the two

languages. It was thought that the greater the differences between the structures of the NL and the TL, the greater the problems and difficulties in learning and performance would be. CA has raised some fundamental issues in language learning. However, there have been doubts about the status and applicability of contrastive linguistic studies to language teaching due to these reasons: (a) CA predicts limited errors and interlingual errors only, (b) some similar L1 and L2 features were difficult to acquire, whereas some different features were easy to acquire and (c) L2 learners' errors are not only due to L1 interference.

Error Analysis was an alternative to CA which considered MT interference (L1 negative transfer) as the major source of errors in L2 learning. It showed that CA could not predict many errors. EA views errors as an integral part of L2 learning and describes how this learning occurs by analysing L2 learners' incorrect utterances. It explains both interlingual (L1 negative transfer) and intralingual errors. Intralingual errors are not related to L1 negative transfer and are due to other factors such as faulty teaching techniques or materials, overgeneralization of L2 rules, age of L2 acquisition and individual differences. EA results can be used to prepare remedial work. Richards et al (1992, 127) explains the role of EA in language learning and teaching by stating that 'the study of errors can be used to (a) identify strategies which learners use in language learning, (b) try to identify the causes of learner errors and (c) obtain information on common difficulties in language learning, as an aid to teaching or in the preparation of teaching materials'. Error Analysis might have merits. However, EA has criticism as follows: (a) EA misses the L2 learner's correct forms by counting incorrect forms only, (b) 'Avoidance' strategy is missed in EA: L2 learners may find ways to avoid producing L2 difficult structures, (c) EA has weakness in methodological procedures, theoretical problems and limitations in scope and (d) explanatory and descriptive aspects are confused in EA.

Markedness Theory is a theory of L2 acquisition which does not rely on L1-L2 differences only, but takes into consideration both L1 transfer and language universals: CA plus typological markedness. CA explained L2 learning difficulty only on the basis of NL-TL differences, whereas the Markedness Differential Hypothesis (MDH) claimed that these differences were not sufficient without incorporating typological markedness into the explanation. The MDH asserts that within the areas of NL-TL differences, marked structures are more difficult to acquire than the corresponding unmarked structures. This shows that not all NL-TL differences will cause equal difficulty and that the degree of difficulty corresponds to the relative degree of markedness. Typological markedness played a role as an explanatory principle in SLA and L2 phonology by explaining the degree of L2 learners' difficulties. However, it received the following criticism: (a) some L2 errors did not occur in an area of L1-L2 difference, (b) the MDH did not explain why L2 learners altered the marked structures in the way they did, (c) markedness is a fact to be explained and (d) using typological universals as explanatory principles raises more questions than it answers.

Universal Grammar (UG) is the most influential theory of language acquisition. It explains L2 acquisition on the basis of L1 acquisition. In this linguistic theory, Chomsky (1981) tried to explain not only what constitutes knowledge of language, but also how this knowledge of language is acquired. Universal Grammar consists of a set of principles, which are common

to all languages and a set of parameters, which have language-specific variables. Grammars of individual languages are therefore the result of the variation of the settings of the different parameters plus language-specific rules. UG suggests that human minds have a Language Acquisition Device (LAD) that helps the learner in the process of acquisition. In UG, L2 acquisition is a matter of setting the correct L2 parameters. There are four positions regarding L2 access to UG: direct access as L1 learners, indirect access via L1, no-access and partial (dual) access. Although researchers have used UG to generate a number of hypotheses about L2 acquisition, UG was criticised as follows: (a) the acquisition of only a small set of syntactic phenomena is explained by its empirical evidence and (b) psychological processes of learning a language are not dealt with.

The Monitor Theory states that ‘comprehensible input’ (CI), language input that can be understood by learners is very crucial in language acquisition. This theory is based on Chomsky’s (1981) concept of a LAD, as follows: L2 acquisition begins after the LAD is activated by ‘comprehensible input’ to L2 learners. This theory has five hypotheses and each one relates to a different aspect of the language process: (a) The Input Hypothesis, (b) The Learning-Acquisition Hypothesis, (c) The Monitor Hypothesis, (d) The Natural Order Hypothesis and (e) The Affective Filter Hypothesis. The Input Hypothesis states that learners progress in their language knowledge, when they comprehend language input that is slightly more advanced than their current level. The Acquisition-Learning Hypothesis states that L2 competence can be developed in two independent ways: acquisition and learning. Acquisition is an implicit and subconscious process, whereas learning is an explicit and conscious process. The Monitor Hypothesis states that a learner’s system acts as a monitor or editor to what they are producing. The Natural Order Hypothesis states that L2 acquisition follows a natural, predictable order. Finally, the Affective Filter Hypothesis states that L2 acquisition is impeded by L2 learner’s affective filter depending on negative, emotional responses to learner’s environment. The Monitor Theory is a theory of L2 acquisition that had important implications for language teaching. However, this theory received the following criticism: (a) it does not have clear definitions of its central assumptions and hypotheses and thus are not readily testable and (b) each hypothesis is marked by serious flaws, and thus the theory lacks falsifiability and explanatory power. Despite the various criticisms, Krashen’s Monitor Theory of L2 acquisition played a very important role in L2 learning and initiated research towards the discovery of orders of acquisition.

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