



The Evolution of SLA

From Contrastive Analysis to Interaction Analysis

Chapter 1

Introductions to Theories of SLA

Second Language Acquisition (SLA) is the study of how second (or additional) languages are acquired. It is a relatively new field of study, emerging from its parent discipline of **Applied Linguistics** in the wake of the failure of **behaviorism** to offer a satisfactory explanation for the first or second language acquisition.

Among the major research questions in SLA are the following:

- To what extent are the processes of SLA the same as those of first language acquisition?
- Why is SLA seldom, if ever, as successful as first language acquisition?
- Why do some learners learn better and/or faster than others?
- Why do learners make errors?
- How does the first language (L1) affect the learning of the second (L2)?
- Does instruction help – and, if so, how and why?

In attempting to answer these questions, researchers draw on the findings of other 'feeder' disciplines, such as *linguistics*, *psychology*, *neurology* and *sociology*. Since it is still impossible to get 'inside' the brain of a learner, researchers use as data the **output** that learners produce (including their errors), the **input** that they are exposed to, the various physical and psychological factors that might be implicated, such as age, aptitude, motivation and learning style, and the various contextual factors, such as whether the learning is instructed or naturalistic.

Since the demise of behaviorism, a great many new theories have emerged to account for second language acquisition. All the theories of SLA are meant to account for the working of the human mind, and all use metaphors to represent this invisible reality. The major theories of SLA in the past half a century are introduced below.

1.1. Behaviorism

Skinner, along with other scholars, proposed his theory of behaviorism which studied human and animal behavior only in terms of physical processes, without reference to mind. It was based on the view that all learning – including language learning – occurs through a process of **imitation, practice, reinforcement** and **habit formation**. According to behaviorism, the **environment** is crucial not only because it is the source of the **linguistic stimuli** that learners need in order to form associations between the words they hear and the objects and events they represent but also because it provides feedback on learners' performance. Behaviorists claimed that when learners correctly produce language that approximates what they are exposed to in the input, and these efforts receive positive reinforcement, habits are formed.

Behaviorism came under attack when **Chomsky** questioned the notion that children learn their first language by repeating what they hear in the surrounding environment. He argued that children produce novel and creative utterances – ones that they would never have heard in their

environment. Researchers asserted that children's creative use of language showed that they were not simply mimicking what they heard in the speech of others, but rather, applying rules and developing an underlying grammar. Following Chomsky's critique of behaviorist explanations for language acquisition and a number of studies of L1 acquisition, behaviorist interpretations of language acquisition fell into disfavor.

1.2. Universal Grammar

Chomsky proposed his **Universal Grammar** (UG) theory to account for first language (L1) acquisition. The theory claims to account for the grammatical competence of every adult no matter what language he or she speaks. Chomsky observed that all children learn language at a time in their cognitive development when they experience difficulty grasping other kinds of knowledge, which appear to be far less complex than language. Chomsky argued that the kind of information which mature speakers of a language have of their L1 could not have been learned from the incomplete and sometimes degenerate language they are exposed to (i.e. the **poverty of stimulus argument**). Also, it was noted that children did not receive systematic corrective feedback on their ill-formed utterances.

Despite all this, children would eventually acquire full competence in their mother tongue. Therefore, Chomsky inferred that children must be equipped with an **innate language faculty** which enables them to process language. This specialized module of the brain was originally referred to as the **language acquisition device** (LAD) and later as UG. It was said to contain some general principles which apply to all languages and also a set of parameters that can vary from one language to another, but only within certain limits. The child's task would be to discover how the language of his or her environment made use of those principles.

Chomsky's theory of UG was offered as a plausible explanation for L1 acquisition. However, the question of whether UG can also explain L2 learning is controversial. One of the reasons for this controversy is the claim that there is a **critical period** for language acquisition. It is suggested that while UG allows a young child to acquire language during this critical period, it is no longer available after puberty and that older L2 learners must make use of more general learning processes which are not specific to language. Therefore, second language acquisition by older learners is more difficult than for younger learners and it is never complete. The argument is that although L2 grammars are still consistent with universal principles of all human languages, learners tend to perceive the L2 in a way that is shaped by the way their L1 realizes these principles.

Another criticism directed at this theory is that researchers who study L2 acquisition from a UG perspective seek to discover a language user's underlying linguistic '**competence**' (what a language user knows) instead of focusing on his or her linguistic '**performance**' (what a language user actually does with the language). Therefore, these researchers are compelled to use indirect means of investigating that competence. For example, rather than recording spontaneous conversations, the researcher may ask a language user to judge whether a sentence is grammatical or not.

1.3. Monitor Theory

Krashen proposed a theory which shares a number of the assumptions with the UG approach but its scope is specifically second language acquisition. As with UG, the assumption is that human beings acquire language without instruction or feedback on error. Krashen developed this theory in the 1970s and presented it in terms of '*five hypotheses*' in the 1980s. The fundamental hypothesis of Monitor Theory is that there is a difference between '*acquisition*' and '*learning*'. Acquisition is hypothesized to occur in a manner similar to L1 acquisition, that with the learner's focus on communicating messages and meanings; learning is described as a conscious process, one in which the learner's attention is directed to the rules and forms of the language. The '*monitor hypothesis*' suggests that, although spontaneous speech originates in the 'acquired system', what has been learned may be used as a monitor to edit speech if the L2 learner has the time and the inclination to focus on the accuracy of the message.

In light of research showing that L2 learners, like L1 learners, go through a series of predictable stages in their acquisition of linguistic features, Krashen proposed the '*natural order hypothesis*'. The '*comprehensible input hypothesis*' reflects his view that L2 learning, like L1 learning, occurs as a result of exposure to meaningful and varied linguistic input. Linguistic input will be effective in changing the learner's developing competence if it is comprehensible (with the help of contextual information) and also offers exposure to language which is slightly more complex than that which the learner has already acquired. The '*affective filter hypothesis*' suggests, however, that a condition for successful acquisition is that the learner be motivated to learn the L2 and thus receptive to the comprehensible input. Krashen's model can be summarized as in figure 1.1.

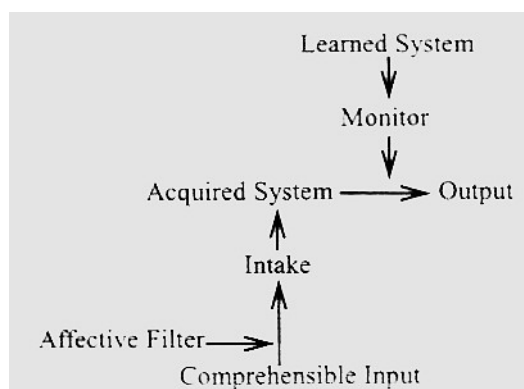


Figure 1.1: Monitor Theory

Krashen has been criticized for the vagueness of the hypotheses and for the fact that some of them are difficult to investigate in empirical studies. Nonetheless, Monitor Theory has had a significant impact on the field of L2 teaching. Many teachers and students intuitively accept the distinction between 'learning' and 'acquisition', recalling experiences of being unable to spontaneously use their L2 even though they had studied it in a classroom. This may be especially true in classrooms where the emphasis is on metalinguistic knowledge, or the ability to talk about the language (usage), rather than on practice in using it communicatively (use).

1.4. Acculturation

Schumann proposed his theory of acculturation to explain the factors affecting adult second language acquisition taking place without formal instruction, in naturalistic situations. Acculturation is the process an individual need to go through in order to become adapted to a different culture. For this to take place there will need to be changes in both **social** and **psychological behavior**. Where the target culture involves a different language, a key part of the acculturation process will involve language learning. Acculturation requires the learner to adjust their social and psychological behavior in order to become more closely integrated with the target culture. This process may be associated with **culture shock** as the learners discover that they need to accept differences in behavior from those with which they are familiar from their own culture.

For Schumann, acculturation theory provided an explanation for individual differences in second language learning and represented the causal variable in the second language acquisition process. In his model of the factors determining social and psychological distance, Schumann established the **positive and negative elements of acculturation**. So, for example, the attitude of the learner to the target social group could be a positive or negative factor while, psychologically, motivation would be seen as a key factor. For him, the first stages of language acquisition are characterized by the same processes that are responsible for the formation of **pidgin languages**. When there are hindrances to acculturation – where social or psychological distance is great – the learner will not progress beyond the early stages and the language will stay pidginized. The learner's language may therefore **fossilize** due to the lack of contact with the target language group.

Research in this mode of SLA has concentrated on the acculturation of immigrant workers to their host country. The fact that many of the learners in this category fail to master the target language is associated with their isolation and lack of social contact with the host population. This lack of progress and the fossilization of their language skills has been linked to **pidginization**. Acculturation is not generally associated with foreign language learning because this can take place without any direct contact with the target country. As the theory stands, then, it would appear to have little to offer instructed second or foreign language learning. However, there is an argument for the probable relevance of the notion of psychological distance for foreign language learning in the classroom. Also, attitude to the target culture and pupil motivation are likely to be key factors in classroom foreign language learning.

1.5. Cognitive Model

McLaughlin proposed his cognitive account of L2 acquisition by suggesting that there is no reason to assume that language acquisition requires specific brain structures used uniquely for language acquisition. Cognitive psychologists hypothesized that second language acquisition, like other learning, requires the learner's attention and effort – whether or not the learner is fully aware of what was being attended to. Some information processing theories suggested that language, like other skilled activity, is first acquired through intentional learning of what is called '**declarative knowledge**' and that, through practice, the declarative knowledge can become

'procedural knowledge'. Other theorists make a similar contrast between **'controlled'** and **'automatic'** processing. The difference is that controlled processing occurs when a learner is accessing information that is new or rare or complex, and the action requires mental effort and takes attention away from other controlled processes. For example, a language learner who appears relatively proficient in a social conversation may struggle to understand complex information because the controlled processing involved in interpreting the language itself interferes with the controlled processing that would be needed to interpret the content. Automatic processing, on the other hand, occurs quickly with minimal attention and effort. Indeed, it is argued that we cannot prevent automatic processing and have little awareness or memory of its occurrence. Thus, once language itself is largely automatic, attention can be focused on the content. According to the information processing model, learning occurs when, through **repeated practice**, controlled knowledge becomes automatic.

Some researchers working within information processing models of second language acquisition have argued that nothing is learned without **'noticing'**. That is, in order for some feature of language to be acquired, it is not enough for the learner to be exposed to it through comprehensible input. The learner must actually notice what it is in that input that makes the meaning. This idea has raised a considerable amount of interest in the context of instructed second language learning.

1.6. Connectionism

Another psychological approach to understanding language learning is that taken in connectionist, emergentist and parallel distributed processing models. These approaches are like the behaviorist approach in the sense that they hypothesize the development of strong associations between items that are frequently encountered together. According to these views, the brain creates networks which connect words or phrases to other words or phrases (as well as to events and objects) which occur at the same time.

It is suggested that these links (or connections) are strengthened when learners are repeatedly exposed to linguistic stimuli in specific contexts. For example, when L2 learners produce *I go* and *she goes*, the latter does not reflect an underlying knowledge of a rule for the placement of 's' with the third person singular. Rather, the connection between *she* and *goes* is thought to be established through high-frequency exposure to these co-occurring structures in the linguistic input. The pronoun *she* activates *goes* and the pronoun *I* triggers *go* because the learner has heard these forms in combination many times.

There is growing interest in this explanation for second language acquisition. Research which has investigated connectionist explanations for first and second language learning provide evidence to support associative accounts of learning. Related to this approach is the observation that much of the language that even highly proficient speakers produce consists of chunks or strings of language that have a high probability of occurring together. Researchers working within these frameworks are proposing that language is represented in the mind as a very large number of linguistic units with varying degrees of likelihood of co-occurrence, rather than as a set of linguistic rules for creating novel sentences.

7. Multidimensional Model

Pienemann introduced his 'Multidimensional Model' to account for the link between the underlying cognitive processes and the stages in the L2 learner's development. In a research, Pienemann observed that L2 learners acquired certain syntactic and morphological features of the L2 in predictable stages. These features were referred to as '**developmental**'. Other features, referred to as '**variational**', appeared to be learned by some but not all learners and, in any case, did not appear to be learned in a fixed sequence. With respect to the developmental features, it was suggested that each stage represented a further degree of complexity in processing strings of words and grammatical markers. For example, it seemed that learners would begin by picking out the most typical word order pattern of a language and using it in all contexts. Later, they would notice words at the beginning or end of sentences or phrases and would begin to be able to move these. Only later could they manipulate elements which were less salient because they were embedded in the middle of a string of words. Because each stage reflected an increase in complexity, a learner had to grasp one stage before moving to the next, and it was not possible to 'skip a stage'. One of the pedagogical implications drawn from the research related to the Multidimensional Model is the '**Teachability Hypothesis**' that learners can only be taught what they are psycholinguistically ready to learn.

1.8. Interactionist Perspectives

Long proposed that a great deal of language learning takes place through social interaction, at least in part because interlocutors adjust their speech to make it more accessible to learners. Some of the L2 research in this framework is based on L1 research into children's interaction with their caregivers and peers. L1 studies showed that children are often exposed to a specialized variety of speech which is tailored to their linguistic and cognitive abilities (i.e. **child-directed speech**). When native speakers engage in conversation with L2 learners, they may also adjust their language in ways intended to make it more comprehensible to the learner (i.e. **foreigner talk**). Furthermore, when L2 learners interact with each other or with native speakers they use a variety of interaction techniques and adjustments in their efforts to negotiate meaning. These adjustments include **modifications** and **simplifications** in all aspects of language, including **phonology, vocabulary, syntax** and **discourse**. In an early formulation of this position for second language acquisition, Long hypothesized that, as Krashen suggests, comprehensible input probably is the essential ingredient for interlanguage development. However, in his view, it was not in simplifying the linguistic elements of speech that interlocutors helped learners acquire language. Rather, it was in modifying the interaction patterns, by paraphrasing, repeating, showing or otherwise working with the L2 speaker to ensure that meaning is communicated. Thus, he hypothesized, interactional adjustments improve comprehension, and comprehension allows acquisition.

Although considerable research has been done to document the negotiation of meaning in native/non-native interaction, it is not clear how (or whether) interaction contributes to L2 grammatical development. In a more recent formulation of the interaction hypothesis, Long acknowledges that negotiation of meaning may not be enough for the successful development of

L2 vocabulary, morphology and syntax and that implicit negative feedback provided during interaction may be required to bring L2 learners to higher levels of performance.

1.9. Sociocultural Perspectives

The Socio-cultural theory of SLA (SCT) is largely based on the work of pioneering Russian psychologist, *Lev Vygotsky*, in the early twentieth century. This paradigm, despite the label '*sociocultural*' does not seek to explain how learners acquire the cultural values of the L2 but rather how knowledge of L2 is internalized through experiences of a sociocultural nature. Theorists working within a sociocultural perspective of L2 learning operate from the assumption that all learning is first social then individual. Unlike the early Interactionist views of SLA, SCT theorists reject the view that interaction serves as a provider of input or of opportunities for output. Indeed, they object to the terms 'input' and 'output', viewing them as indicative of a mechanistic view of communication and learning. They argue that interaction cannot be properly investigated by breaking it down into its component elements; rather it is necessary to look at the active learner in his or her environment and study interaction in its totality in order to show the emergence of learning. In fact, SCT argues for a much richer view of interaction and for treating it as a cognitive activity in its own right.

SCT views language acquisition as an inherently social practice that takes place within interaction as learners are assisted to produce linguistic forms and functions that they are unable to perform by themselves. Subsequently '*internalization*' takes place as learners move from assisted to independent control over a feature. In this view, cognition needs to be investigated without isolating it from social context. SCT sees language learning as dialogically based. Theorists working within a sociocultural perspective of L2 learning propose that 'LAD' is located in the interaction that takes place between speakers rather than inside their heads. That is acquisition occurs in rather than as a result of interaction. From this perspective, then, L2 acquisition is not a purely individual-based process but shared between the individual and other persons. One of the principle ways in which this sharing takes place is *scaffolding* (more recently referred to as '*collaborative dialogue*' or '*instructional conversation*'). Scaffolding is a social (or in SCT terms, inter-psychological) process through which learners internalize knowledge dialogically. That is, it is a process by which one speaker (an expert or a novice) assists another speaker (a novice) to perform a skill that they are unable to perform independently.

SCT also has a psychological dimension. This entails the extent to which an individual is ready to perform the new skill. Vygotsky evoked the metaphor of the *zone of proximal development* (ZPD) to explain the difference between an individual's actual and potential levels of development. The skills that an individual has already mastered constitute his or her *actual level*. The skills that the individual can perform when assisted by another person constitute the *potential level*. Thus, learnt skills provide a basis for the performance of new skills. For interaction to work for acquisition it needs to assist the learner in constructing zones of proximal development. As mentioned above, this is achieved with the help of scaffolding.

Like cognitive theories of SLA, SCT assumes that the same general learning mechanisms apply to language learning as with other forms of knowledge. However, SCT emphasizes the integration of the social, cultural and biological elements. On the other hand, unlike the linguistic

theories of SLA, SCT does not offer any very thorough or detailed view of language as a formal system.

1.10. Conclusion

While theories in any field can differ substantively and in many other ways, at some level they are all interim understandings of how something works – in the case of SLA theories, interim understandings of how people learn second languages. Just as any understanding of how the human body works is likely to be relevant to medical practice at some level, so any theory of SLA is likely to be at least indirectly relevant to language teaching practice, in that SLA is the process language teaching is designed to facilitate.

The lack of any one comprehensive and conclusive theory of SLA is a source of frustration to some commentators and practitioners. Others accept that language acquisition is such a multidimensional phenomenon that no single theory will ever capture its complexity. One criticism of SLA research is that it is generally conducted apart from the realities of the classroom. Hence, its research questions may not be the ones that teachers want answered, or its methods and results may not be generalizable to real learning situations. This may account for the skepticism, even indifference that many teachers feel for SLA theory. Ironically, the SLA theory that has attracted the most interest among teachers is Krashen's (now generally discredited) claim that teaching does not benefit acquisition.

Chapter 2

The Basics of Contrastive Analysis

2.1. Introduction to CA

Contrastive analysis (CA) is an area of Comparative Linguistics which is concerned with the comparison of two or more languages or subsystems of languages to determine the differences or similarities between them, either for theoretical purposes or for purposes external to the analysis itself. It implies a belief in language universals; as in any contrast, if there were no features in common, there would be no basis for comparison. Broadly defined, CA has been used as a tool in *comparative historical linguistics* to establish *language genealogies*, in *typological linguistics* to create *language taxonomies*, in *translation theory* to investigate problems of *equivalence* and in *lexicography* to create *bilingual dictionaries*.

After some pioneering studies with a primarily theoretical focus at the turn of the 20th century, modern contrastive linguistics got its impetus from attempts, in the 1940s and 1950s in the United States, at working out effective and economical foreign language teaching materials. The early proponents of contrastive analysis started from the general assumption that efficient language teaching materials could be produced by obtaining a scientific description of the language to be taught by means of its careful comparison with a similar description of the learner's first language.

Contrastive analysis underwent a period of rapid development and expansion in the 1960s, particularly in the United States where the first systematic and extensive formulation of the CAH was proposed by *Lado* in *Linguistics across Cultures*. This book is widely regarded as having launched the 'CA movement' in language teaching. *Lado proposed that the degree of difference between the two languages also correlated with the degree of difficulty*. Later on, however, the analysts' attention was also drawn to similarities between languages, because language teaching was expected to benefit from such information. Using structuralist linguistic methods, Lado set out procedures for the comparison of *phonology, grammar* and *vocabulary*, and discussed ways in which such analyses might be relevant to *syllabus* and *materials design*, methodology and testing. He also embarked upon a simplistic contrastive analysis of *cultures*. His methods were most successful in the area of pronunciation (where interference is evident, extensive and easily described), rather less successful in the description of grammar and lexis, and least successful of all in the analysis of culture. The book inspired an eruption of activity in contrastive analysis and the 1960s saw numerous research projects and publications. The same period saw parallel work using CA in lexicology and in translation. Another active area at this time was the empirical study of language universals using CA to categorize languages by structural similarities and differences.

In the heyday of American contrastive analysis in the 1960s, a series of extensive contrastive linguistic analyses were undertaken between English and a number of other languages, and in Europe several contrastive projects were launched somewhat later. In many cases the interest faded away quite soon, because the applied objectives were never properly reached. In the United States the results of some analyses were never published, and what was left behind was a skepticism among a large body of linguists towards CA that has lasted up to the present day. The skepticism concerning the usefulness of contrastive studies derives mainly from

the failure of the structurally oriented contrastive studies to cope with problems encountered in foreign language teaching, but it was also partly due to the fact that **contrastive orientation had been linked with Behaviorism, mainly as regards the role of transfer in language learning and language use**. When the idea of transfer was given up, the idea of the influence of the mother tongue on second languages could not be accepted either. In the United States, one more reason for the downfall of CA in the 1960s was the rapid growth of Generative linguistics which made linguists **more interested in universals than in linguistic differences**.

Throughout the 1970s and 1980s, however, contrastive analysis was extensively practiced in various European countries, particularly in Eastern European countries, and in the early 1990s there were clear signs of a renewed interest. Since then, the rapid development of automatic data processing and information technology has opened up new prospects for contrastive approaches through the potential of large corpora.

2.2. Theoretical Foundations of CA

As a key theoretical foundation of CA, behaviorism dominated the linguistic field until the end of the 1960s. As a school of psychology, behaviorism emerged from empiricism, the philosophical doctrine that all knowledge comes from experience. Behaviorism contributes to the notion that human behavior is the sum of its smallest parts and components, and therefore that language learning could be described as the acquisition of all of these discrete units. In other words, language learning process is the formation of pieces of language habits. Habit formation is an important concept in accounting for **errors** in the behaviorist view. **A habit is formed when a particular stimulus becomes regularly linked with a particular response**. Accordingly, the association of stimulus and response, negative or positive, will determine the occurrence of errors to a great extent. **If old habits get in the way of learning new habits, then errors occur**. This process is referred to as **interference**. Therefore, according to the behaviorist learning theory, **errors occur as a result of interference of the mother tongue**.

Interference is the subcategory of a more general process called **transfer**. **Transfer is a general term describing the carryover of previous performance or knowledge to subsequent learning**. **Positive transfer** occurs when the prior knowledge benefits the learning task - that is, when a previous item is correctly applied to present subject matter. **Negative transfer** occurs when previous performance disrupts the performance of a second task. The latter can be referred to as interference, in that previously learned material interferes with subsequent material - a previous item is incorrectly transferred or incorrectly associated with an item to be learned.

It has been common in second language teaching to stress the role of interference - that is, the interfering effects of the native language on the target language. It is of course not surprising that this process has been so singled out, for native language interference is surely the most immediately noticeable source of error among second language learners. The noticeability of interference has been so strong that CA has viewed second language learning as exclusively involving the overcoming of the effects of the native language. It is clear from learning theory that a person will use whatever previous experience he or she has had with language to facilitate the second language learning process. The native language is an obvious set of prior experiences. Sometimes the native language is negatively transferred, and we say then that interference has occurred.

It is very important to remember, however, that the native language of a second language learner is often positively transferred, in which case the learner benefits from the facilitating effects of the first language. We often mistakenly overlook the facilitating effects of the native language in our desire for analyzing errors in the second language and for overstressing the interfering effects of the first language. Nowadays, the widely used term interference is being increasingly replaced by the label ***cross-linguistic influence*** (CLI) in order to avoid associations with behaviorism. ***CLI is a cover term used to refer to situations where one language shows the influence of another.***

2.3. Theoretical versus Applied CA

It is necessary to distinguish between two types of CA: ***theoretical*** and ***applied***. Confusion between the aims of these two types of CA has often resulted in the evaluation of the results of theoretical research against applied objectives, or theoretical analysis has been performed for the purposes of, for instance, language teaching. The obvious result has been increased uncertainty about the usefulness of CA.

Theoretical contrastive studies produce extensive accounts of the differences and similarities between the languages contrasted. Attempts are also made at providing adequate models for cross-language comparison and at determining which elements in languages are comparable and how it should be done. The alignment of languages also adds to the information about the characteristics of individual languages or about linguistic analysis in general. No claims should, however, be made for the applicability of the results for purposes other than linguistic analysis.

On the other hand, the target of applied contrastive studies is the establishment of information that can be used for purposes outside the language domain proper, such as language teaching, translation, interpreting and bilingual education. Traditionally, this kind of contrastive analysis has been mainly concerned with the identification of potential trouble in the use of the language learner's target language.

2.4. Traditional versus Modern CA

Traditional contrastive analysis mainly focuses on code linguistics. Since it is virtually impossible to contrast every possible fact of two languages, CA proceeds from the descriptions of some selected features or phenomena in the two languages. These features can include a wide range of categories, rules or rule systems, realizations of semantic concepts, various language functions, or even pragmatic categories and rhetorical issues. However, traditional CA primarily tends to be confined within the boundaries of sentence. Next, those selected features are juxtaposed on the basis of ***translation equivalence*** as assessed by a bilingual informant. The following stage is to compare and contrast the two systems in order to discover the points of similarity and difference. After mapping of one system to the other, some statements can be made regarding possible occurrence of deviant structures in learners' interlanguage and a supposed hierarchy of difficulty is established. This is the prediction stage. Sometimes a verification stage can follow, where the contrastivists test their prediction of errors on a number of learners.

The first objection to the traditional view of CA is directed at the concept of equivalence. It is possible to argue that there are no grounds for considering two texts in two languages as **fully equivalent** under any circumstances. All communication is culturally relative, and texts are the same because they are communicative events. This makes them relative also in another sense. It could, for instance, be hypothesized that two highly specialized technical or medical documents are closer to each other than, for instance, a fictional text and its translation into another language.

Since many studies had resulted in the conclusion that the alignment and mapping of the language codes have proved to be insufficient for applied purposes, recent contrastive studies have adopted a dynamic approach where various psychological, sociological, and contextual factors alongside the purely linguistic ones are taken into account. Therefore, ***in modern contrastive linguistics, the theory and methodology adopted from linguistics has been supplemented with those derived from sociology, psychology, social psychology, neurology, cultural studies, ethnography, anthropology and related disciplines for the analysis of pragmatic patterning, cognitive mechanisms and information processing systems involved.***

The other difference between traditional and modern CA is that in traditional contrastive studies the learner had been almost totally forgotten in much of what had been written about the success - or mostly failure - of contrastive analysis from an applied viewpoint. Today, it is quite evident that a straightforward setting alongside of two linguistic systems - even irrespective of the level of analysis - is too simplistic and cannot easily produce information relevant for language teaching purposes. There is simply too much variation in learner performance for it to be accounted for by reference to linguistic phenomena alone. Therefore, ***modern approaches to CA are more participant-oriented*** where the intentions of the language users and the process of communication as a whole are taken into consideration. Language use is based on internalized categories of rules and structures and on various processes, and therefore speakers observe phenomena that they have learned, or choose, to observe. A student may hear, and thus also produce, a certain language feature differently from what is expected by the teacher because the student's perception is not governed by the patterning adopted for teaching from a theoretical or pedagogical perspective. It is impossible to understand learners' problems unless it is known how they feel, what they attempt to hear, what they actually hear, what the structures are that they perceive, and how these differ from the perceptions of native speakers in similar situations. This implies that true contrasts, at least from the learning point of view, lie inside each individual learner, i.e. in the interaction of various types of information relating to the second/foreign language, the mother tongue, and possible other languages.

Another distinguishing feature of modern contrastive linguistics is that, it is no longer necessary for the contrastive linguist to invent the examples in the way it used to be done. It is now possible to resort to corpora, where the relevant instances can be found by means of automatic searches. The development of powerful computer tools makes it possible to carry out contrastive studies of language features in context through the use of large computerized corpora. In this way, new insights can be expected into Contrastive Discourse Analysis, Contrastive Rhetoric and Contrastive Pragmatics. Many areas of syntax, semantics and lexis may also benefit from the availability of large parallel corpora. At the same time, it may be possible to develop new theoretical approaches to contrastive analysis.

Table 3.1. summarizes the differences between Traditional and Modern Contrastive Analysis.

Traditional CA	Modern CA
Major focus: negative L1 transfer	Major focus: principle of cross-linguistic influence
Based on limited selected corpus	Based on large computerized corpora
Availability of perfect equivalence across languages	Relative nature of equivalence across languages
Static approach: linguistic code as the only criteria for comparison	Dynamic approach: social, psychological, cultural and contextual factors also considered
Learner is ignored	Participant-oriented
Comparison at a Micro-linguistic level	Comparison at a Macro-linguistic level

Chapter 3

The Development of CA

3.1. Strong Claims of CAH

CA offered some strong claims in the area of language teaching which are characterized as the Contrastive Analysis Hypothesis. Deeply rooted in the behavioristic and structuralist approaches of the day, the CAH claimed that the principal barrier to second language acquisition is the ***interference of the first language system with the second language system***, and that a scientific, structural analysis of the two languages in question would yield a taxonomy of linguistic contrasts between them which in turn would enable linguists and language teachers to predict the difficulties a learner would encounter. This can be summarized like this:

difference b/w L1 & L2 item >> interference of L1 into L2 >> difficulty in learning L2

As mentioned above, Behaviorism contributed to the notion that human behavior is the sum of its smallest parts and components, and therefore that language learning could be described as the acquisition of all of those discrete units. Moreover, human learning theories highlighted interfering elements of learning, concluding that where no interference could be predicted, no difficulty would be experienced since one could transfer positively all other items in a language. The logical conclusion from these various psychological and linguistic assumptions was that second language learning basically involved the overcoming of the differences between the two linguistic systems – the native and target languages.

Intuitively the CAH has appeal in that we commonly observe in second language learners plenty of errors attributable to the negative transfer of the native language to the target language. It is quite common, for example, to detect certain foreign accents and to be able to infer, from the speech of the learner alone, where the learner comes from. Native English speakers can easily identify the accents of English language learners from Germany, France, Spain, and Japan, for example.

One of the strongest claims of CAH was made by **Robert Lado**. He proposed that through a systematic comparison of the language and the culture to be learned with the native language and culture of the student it was possible to predict and describe the patterns that would cause difficulty in learning, and those that would not. He also claimed that ***the key to ease or difficulty in foreign language learning lie in the comparison between native and foreign language. Therefore, those elements that were similar to the learner's native language would be simple for him and those elements that were different would be difficult.***

Such strong claims of CAH resulted in endeavors to create a hierarchy of difficulty by which a teacher or linguist could make a prediction of the relative difficulty of a given aspect of the target language. **Stockwell** and his associates constructed a hierarchy of difficulty for grammatical structures of two languages in contrast. Their grammatical hierarchy included 16 levels of difficulty based on the same notions used to construct phonological criteria. **Prator** captured the essence of this grammatical hierarchy in six categories of difficulty. Prator's

hierarchy was supposedly applicable to both grammatical and phonological features of language. The six categories, in ascending order of difficulty along with a number of examples for Persian-English CA are listed below and further illustrated in Table 3.1.

- Level 0 – **Transfer**: No difference or contrast is present between the two languages. The learner can simply **transfer (positively)** a sound, structure, or lexical item from the native language to the target language. Here are some examples in Persian-English CA, where no/very little difference exists between the two languages and the Persian learners of English can directly transfer them to their L2: phonemes /p/, /b/, /m/, /v/, and words like, *radio, telephone, mother, tour, television, salad, nylon, taxi, shampoo, police, spray*.
- Level 1 – **Coalescence**: Two items in the native language become coalesced into one item in the target language. This requires that learners overlook a distinction they have grown accustomed to. Here are some examples in Persian-English CA, where two or more items in Persian converge into one item in English: (تو & شما) for *you*; (دانشجو & دانش‌آموز) for *student*; (دایی & عمو) for *uncle*; (پسر خواهر & پسر برادر) for *nephew*; (آفتاب & خورشید) for *sun*; (پسر عمو & دختر خاله پسر خاله) for *cousin*; (فرش & قالی) for *carpet*.
- Level 2 – **Under-differentiation**: An item in the native language is absent in the target language. The learner must avoid that item. Here are some examples in Persian-English CA, where an item in Persian is absent in English: Grammatical elements such as 'verb inflections marking person & number'; مضارع اخباری and phonemes like /χ/ and /q/, and words such as: *دیزی, هوو, آبا*.
- Level 3 – **Reinterpretation**: An item that exists in the native language is given a new shape or distribution. For example, the phonemes /t/, /d/, /l/, /n/, /r/ and /b/ in Persian are similar to their counterparts in English but have different phonetic realizations or are different in terms of their distribution. Also, *present perfect tense* and *noun-noun* and *adjective-noun* combinations in English and Persian as well as English words like *Machine, Coat, Jacket, terror, line, theater, service, lamp* and their direct borrowings in Persian (تئاتر) (سرویس (دستشویی), لامپ ماشین, کت, ژاکت ترور (سیاسی), لاین (خیابان)) may fall in this category.
- Level 4 – **Over-differentiation**: A new item entirely bearing little if any similarity to the native language item must be learned. For example, the following phonemes, lexical items or grammatical forms are absent in Persian: /θ/, /ð/, /η/, initial consonant clusters like /sk/, *eggnog, the, Halloween, future in the past*.
- Level 5 – **Split (Divergence)**: One item in the native language becomes two or more in the target language, requiring the learner to make a new distinction. Here are some examples in Persian-English CA, where one item in Persian diverge into two or more items in English: (آموزتن) for *teach & learn*; (میز) for *desk & table*; (او) for *he & she*; (خوردن) for *eat & drink*; (ساعت) for *time, watch, clock & hour*; (خود) for *self, own & ego*; (بین) for *see, look & watch*; (پا) for *foot & leg*; (گفتن) for *tell & say*; (حیاط) for *yard & garden*; (درد) for *pain, ache & sore*; /i:/ for /i:/ & /i/; /v/ for /v/ & /w/ and /n/ for /n/ & /ŋ/.

Table 3.1. Hierarchy of Difficulty

Type of Difficulty	L1	L2
Transfer (correspondence)	x	x
Coalescence (convergence)	x y	z
Under-differentiation (absent)	x	∅
Reinterpretation (new)	x	x'
Over-differentiation (very new)	∅	x
Split (divergence)	x	y z

Prator's reinterpretation, and Stockwell and his associates' original hierarchy of difficulty were based on principles of human learning as they were understood at the time. The first, or "zero," degree of difficulty represented complete one-to-one correspondence and transfer, while the fifth degree of difficulty was the height of interference. Prator and Stockwell both claimed that their hierarchy could be applied to virtually any two languages and make it possible to predict second language learner difficulties in any language with a fair degree of certainty and objectivity. However, as we will see below, many of these predictions proved to be oversimplified and failed to materialize.

3.2. Evaluation of CAH

The Contrastive Analysis Hypothesis (CAH) was widely influential in the 1950s and 1960s, but from the 1970s its influence dramatically declined. This was due to both theoretical and practical flaws in the CAH as well as new realities on the ground. Some of the reasons for the downfall of the CAH are mentioned below:

- While the association of CAH with **behaviorism** and **structuralism** gave it academic legitimacy, it ultimately led to its downfall. From the late 1950s **Chomsky** mounted a serious challenge against the behaviorist view of language acquisition and structuralist linguistics which contributed to the decline of the CA.
- CAH was at odds with the views of later developments in applied linguistics including **Error Analysis**, **Interlanguage theory** and **Second Language Acquisition**. The theory of Interlanguage listed a number of sources of error of which first language interference was only one. Therefore, Error Analysis, the examination of attested learner errors, began to replace the error prediction of CA.

- A major flaw of the CAH was the dubious assumption that one could depend solely upon an analysis of a *linguistic product* to yield meaningful insight into a *psycholinguistic process*, i.e. second language learning.
- The empirical method of prediction based on the hierarchy of difficulty was shown to have many shortcomings. Firstly, the process was *oversimplified*; subtle phonetic, phonological, and grammatical distinctions were not carefully accounted for. Second, it was very difficult, even with six categories, to determine exactly which category a particular contrast fit into.
- The accumulation of empirical studies of SLA indicated that the CAH made the wrong predictions. Firstly, it did not anticipate all the errors, i.e. it *underpredicted* some of the actual errors. Second, some errors it did predict failed to materialize, i.e. it *overpredicted* the presumed errors.

Despite continued criticism, contrastive analysis still remains a useful tool in the search for potential sources of trouble in foreign language learning. CA cannot be overlooked in syllabus design and it is a valuable source of information for the purposes of translation and interpretation. As we will see later in this chapter, today, the scope of contrastive analysis has gradually widened, along with the expansion of researchers' interests beyond the confines of the sentence for instance, to interlanguage Pragmatics or Contrastive Rhetoric.

3.3. Strong versus Weak and Moderate Versions of CAH

As, we saw above, the attempt to predict difficulty by means of contrastive analysis, i.e. the strong version of the CAH, was quite unrealistic and impracticable. It was noted that at the very least, this version demands of linguists that they have available a set of linguistic universals formulated within a comprehensive linguistic theory, which deals adequately with syntax, semantics, and phonology. But do linguists have available to them an overall contrastive system, within which they can relate the two languages in terms of mergers, splits, zeroes, over-differentiations, under-differentiations, reinterpretations? Therefore, while many linguists claimed to be using a scientific, empirical, and theoretically justified tool in contrastive analysis, in actuality they were operating more out of mentalistic subjectivity.

Yet contrastive analysis has intuitive appeal, and teachers and linguists have successfully used the best linguistic knowledge available in order to account for observed difficulties in second language learning. Such observational use of contrastive analysis is referred to as *the weak version of the CAH*. The weak version does not imply a priori prediction of certain degrees of difficulty; on the contrary, it adopts a posteriori – after the fact – approach. The weak version of CAH contends that *in the learning of L2, the native language of the learner does not really 'interfere' with his learning so much as it provides an 'escape hatch' when the learner gets into a tight spot*. In other words, it holds that when the learner doesn't know how to say something in the target language, he 'pads' from his native language. This view point suggests that what will be most difficult for the learner is what he does not already know. As learners are learning the language and errors appear, teachers can utilize their knowledge of the target and native languages to understand sources of error. The weak version of CA can be summarized like this:

Limited knowledge of L2 >> Recourse to L1 >> difficulty in learning L2

The so-called weak version of the CAH is what remains today under the label cross-linguistic influence (CLI), suggesting that we all recognize the significant role that prior experience plays in any learning act, and that the influence of the native language as prior experience must not be overlooked. The difference between today's emphasis on influence, rather than prediction, is an important one. Aside from phonology, which remains the most reliable linguistic category for predicting learner performance, other aspects of language present more of a gamble. Syntactic, lexical, and semantic interference show far more variation among learners than psychomotor based pronunciation interference.

Another blow to the strong version of the CAH was delivered by **Oller and Ziahosseini**, who proposed the so-called ***moderate version*** or subtle differences version of the CAH. According to this model, L2 items which are different from L1, rather than causing difficulty, are more likely to be noticed and categorized. From this perspective, ***it is the similar items which can pose a problem***. This notion was based on the principle of ***stimulus generalization*** which states that ***the more similar two stimuli are, the more likely a person is to respond to them as if they were the same stimulus***. Therefore, when the learner is faced with such a condition, he may generalize a response learned to one stimulus to a similar stimulus. This, was claimed, would create confusion on the side of the learner.

The moderate version of CA was proposed on the basis of a study of ***spelling errors***. Oller and Ziahosseini found that for learners of English as a second language, English spelling proved to be more difficult for people whose native language used a Roman script (for example, French, Spanish) than for those whose native language used a non-Roman script (Arabic, Japanese). The strong form of the CAH would have predicted that the learning of an entirely new writing system (Level 4 in the hierarchy of difficulty) would be more difficult than reinterpreting (Level 3) spelling rules. Oller and Ziahosseini found the opposite to be true, concluding that ***"wherever patterns are minimally distinct in form or meaning in one or more systems, confusion may result"***. As a result, from this perspective the easiest and most difficult conditions for learning L2 structures respectively correspond to Prator's split (Level 5) and reinterpretation (Level 3). The moderate version of CA can be summarized like this:

little difference b/w L1 & L2 items >> confusion b/w L1 & L2 items >> difficulty in learning L2

Table 3.2 compares the different attitudes adopted towards L1 role in L2 learning since the idea was first conceived by CAH.

Table 3.2. Different attitudes towards L1 role in L2 learning

	Type of impact	Learner Role	Teacher Role
Strong Version	Negative interlingual L1 interference as the dominant barrier to L2 learning	Passive (victim of interference)	Error prediction (a priori)
Weak Version	Possible negative interlingual impact of L1 on L2 (vague position)	Active (recourse to L1)	Error description (a posteriori)
Moderate Version	Positive/negative influence across all languages known by a person as only one factor shaping learner language	Active (hypothesis testing)	Dynamic & judicious approach

On the basis of the discussion above, we can conclude that “the strong form of the CAH was too strong, but the weak form was also perhaps too weak. CLI research offers a cautious middle ground”. Specialized research on CLI in the form of contrastive lexicology, syntax, semantics, and pragmatics continues to provide insights into second language acquisition (SLA) that must not be overlooked. *CLI implies much more than simply the effect of one's first language on a second, the second language also influences the first. Moreover, subsequent languages in multilinguals all affect each other in various ways.* The implications of research on CLI suggest that teachers must certainly be careful not to prejudge learners errors based on their L1 backgrounds before they have even given them a chance to perform. At the same time, they must also understand that CLI is an important linguistic factor at play in the acquisition of a second language.

3.4. Markedness Differential Hypothesis

Markedness Differential Hypothesis (MDH) or otherwise known as **markedness theory** is based on the theory that within and across languages, *certain linguistic elements can be seen as unmarked, i.e. simple, core, or prototypical, while others are seen as marked. i.e. complex, peripheral, or exceptional.* For example, vowels can be either voiced or voiceless. Voiced vowels are considered unmarked, while voiceless vowels (which occur in fewer languages of the world) are marked. Markedness theory distinguishes members of a pair of related forms or structures by assuming that the marked member of a pair contains at least one more feature than the unmarked one. In addition, the unmarked (or neutral) member of the pair is the one with a wider range of distribution than the marked one. For example, in the case of the English indefinite articles (*a* and *an*), *an* is the more complex or marked form (it has an additional sound) and *a* is the unmarked form with the wider distribution.

MDH is a way to refine CA in order to predict areas of difficulty more accurately when learners of a given source language are acquiring a given target language. *Eckman* has described a useful method for determining the directionality of difficulty. This model accounted for relative

degrees of difficulty by means of principles of universal grammar suggesting that ***degrees of markedness will correspond to degrees of difficulty***.

Eckman pointed out that new L2 items are not always difficult; difficulty arises when learning a marked feature in L2 when it is unmarked in L1. In other words, if the target language contains structures that are marked, these will be difficult to learn. However, if the target language structures are unmarked, they will cause little or no difficulty, even if they do not exist in the learner's native language. The markedness version of CA can be summarized like this:

Learning a marked feature in L2 when it is unmarked in L1 >> difficulty in learning L2 item

Markedness has sometimes been invoked as a predictor of acquisition order in second and foreign language learning. MDH has been used to explain why there seems to be a certain order of acquisition of morphemes in English: marked structures are acquired later than unmarked structures. For example, learners of English as a second language acquire singular *He* before plural *they*, *on* before *under*, *where* before *why*, and the phonologically simple possessive forms */s, z/* before the phonologically more complex */əz/*.

In recent years, the attention of some second language researchers has expanded beyond markedness hypotheses alone to the broader framework of linguistic universals in general. Some of these arguments focus on the applicability of notions of universal grammar (UG) to second language acquisition. Many of the "rules" acquired by children learning their first language are presumed to be universal. By extension, rules that are shared by all languages comprise this UG. Such rules are a set of limitations or parameters of language. Different languages set their parameters differently, thereby creating the characteristic grammar for that language. 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.

Chapter 4

The Basics of Error Analysis

4.1. Introduction to EA

The errors a person makes in the process of constructing a new system of language should be analyzed carefully, for they possibly hold in them some of the keys to the understanding of the process of second language acquisition. A learner's errors are significant in that they provide to the researcher evidence of ***how language is learned or acquired and what strategies or procedures the learner is employing in the discovery of the language. The study and analysis of the errors made by second language learners is called Error Analysis (EA).***

As an approach to understanding second language acquisition, EA saw its heyday in the 1970s. In the history of SLA research, error analysis was a phase of enquiry which followed on from Contrastive Analysis. As a matter of fact, EA heralded the new era of SLA because previously there was no generally accepted view that first (L1) and second (L2) language learning differed significantly. As mentioned above, CA had been interested in comparing two linguistic systems – the learner's L1 and the target L2 – with a view to determining structural similarities and differences. ***The view of SLA which underpinned CA was that L2 learners transfer the habits of their L1 into the L2.*** Where the L1 and the L2 items were the same, the learners would transfer appropriate properties and be successful: a case of positive transfer. Where the L1 and the L2 items differed, the learner would transfer inappropriate properties and learner errors would result: a case of negative transfer. This was the Contrastive Analysis Hypothesis. Errors on this account were predicted to occur entirely at points of divergence between L1 and L2. However, as we saw above, learners can commit errors that are not apparently due to L1 interference.

The awareness that some of the errors which L2 learners make are not the result of negative transfer led to researchers focusing on errors themselves, rather than on comparing the source and target languages. This shift of interest was captured in a well-known article by Corder dealing with the significance of learners' errors. Errors came to be viewed as a reflection of L2 learners' mental knowledge of the L2 or their interlanguage grammars. Rather than being seen as something to be prevented, then, errors were viewed as signs that learners were actively engaged in hypothesis testing which would ultimately result in the acquisition of target language rules. Researchers therefore began to analyze corpora of L2 errors in order to better understand the nature of this process.

4.2. Theoretical Foundations of EA

The theoretical foundation of EA can be traced back to such philosophical doctrines as ***mentalism and nativism. According to the nativists, the ability of humans to learn language builds upon an innate faculty of language, rather than on the environment.*** Such theories were primarily advanced to explain L1 acquisition. However, in the 1960s and 1970s, the similarities in L2 acquisition process among all language learners regardless of their L1

backgrounds prompted many SLA researchers to adopt a mentalist position, the basic tenets of which are:

1. Only human beings are capable of learning language.
2. The human mind is equipped with a faculty for learning language, referred to **Language Acquisition Device**. This is separate from the faculties responsible for other kinds of cognitive activity (for example, logical reasoning)
3. Input is needed, but only to 'trigger' the operation of the language acquisition device.

Furthermore, EA had strong links to the theory which was later to be called **Interlanguage Theory**. *This theory seeks to understand learner language on its own terms, as a natural language with its own consistent set of rules*. Interlanguage scholars reject the view of learner language as merely an imperfect version of the target language. Coming after the demise of behaviorism, interlanguage theory was in line with the growing body of cognitive approaches in applied linguistics, where the focus was on the learner and how performance is indicative of underlying processes and strategies.

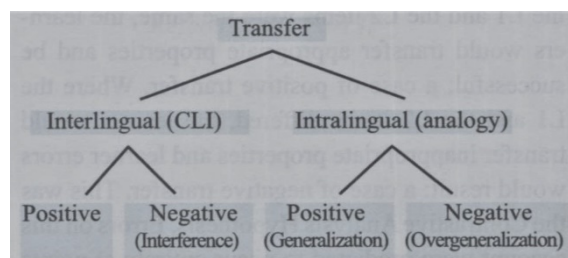
One of the major cognitive processes identified by EA is **overgeneralization** which is, of course, a particular subset of generalization. **Generalization** is a crucially important and pervading strategy in human learning. *To generalize means to infer or derive a law, rule, or conclusion, usually from the observation of particular instances (induction)*. Much of human learning involves generalization. The learning of concepts in early childhood is a process of generalizing. A child who has been exposed to various kinds of animals gradually acquires a generalized concept of "animal." That same child, however, at an early stage of generalization, might in his or her familiarity with dogs see a horse for the first time and by analogy overgeneralize the concept of "dog" and call the horse a dog. Similarly, a number of animals might be placed into a category of "dog" until the general attributes of a larger category, "animal," have been learned. This is also true about the children who at a particular stage of learning English as an L1 overgeneralize *regular past tense endings (walked, opened)* as applicable to all past tense forms (*goed, flied*) until they recognize a subset of verbs that belong in an "irregular" category.

An identical process is at play in L2 acquisition when L2 learners overgeneralize within the target language after they gain some exposure and familiarity with the L2 (intralingual error). In SLA, it has been common to refer to **overgeneralization as a process that occurs as the L2 learner acts within the target language, generalizing a particular rule or item in the L2 – irrespective of the L1 – beyond legitimate bounds**. Typical examples in learning English as a second language are past tense regularization and utterances like *John doesn't can study* (negativization requires insertion of the do auxiliary before verbs) or *He told me when should I get off the train* (indirect discourse requires normal word order, not question word order, after the wh-word). Unaware that these rules have special constraints, the learner overgeneralizes. Such overgeneralization can be witnessed among learners of English from almost any L1 background.

Many have been led to believe that a learner's interlanguage is influenced by only two process of SLA: **interference and overgeneralization**. This is obviously a misconception. **First, interference and overgeneralization are the negative counterparts of the facilitating processes of transfer and generalization. Second, while they are indeed aspects of different processes, they represent fundamental and interrelated components of all human learning, and when applied to L2 acquisition, are simply extensions of general psychological principles. Interference of the L1 in the L2 is simply a form of generalizing that takes prior first language experiences and applies them incorrectly. Overgeneralization is the incorrect application – negative transfer – of previously learned L2 material to a present L2 context.**

All generalizing involves transfer, and all transfer involves generalizing. Figure 4-1 illustrates this classification.

Figure 4.1. Overgeneralization and Interference



4.3. Errors versus Mistakes

In the first step of identifying L2 errors, an important methodological consideration is to set aside those deviations which are transient 'lapses' or 'mistakes' from those which are **systematic differences between the linguistic knowledge of the L2 learner and the native speaker (i.e., errors)**. **An error is a breach of the language code, resulting in an unacceptable utterance; with L2 learners this might occur because the learners have not yet internalized the formation rules of the code. Mistakes or lapses are said to be the result of some 'failure of performance'. They occur when the language user makes a slip such as a false start or a confusion of structure.**

A mistake refers to a performance error that is either a random guess or a "slip," in that it is a failure to utilize a known system correctly. All people make mistakes, in both native and second language situations. Native speakers are normally capable of recognizing and correcting such "lapses" or mistakes, which are not the result of a deficiency in competence but the result of some sort of temporary breakdown or imperfection in the process of producing speech. These hesitations, slips of the tongue, random ungrammaticalities, and other performance lapses in native-speaker production also occur in second language speech. **Mistakes, when attention is called to them, can be self-corrected.**

On the other hand, errors of a second language learner refer to idiosyncrasies in the language of the learner that are direct manifestations of a system within which a learner is operating at the time. **An error, a noticeable deviation from the adult grammar of a native speaker, reflects the competence of the learner.** Learners of English who ask "Does John can sing?" are in all likelihood reflecting a competence level in which all verbs require a pre-posed *do* auxiliary for question formation. As such, it is an error, most likely not a mistake, and an error that reveals a portion of the learner's competence in the target language.

It is not always possible to tell the difference between an error and a mistake. **An error cannot be self-corrected, while mistakes can be self-corrected if the deviation is pointed out to the speaker.** But the learner's capacity for self-correction is objectively observable only if the learner actually self-corrects; therefore, if no such self-correction occurs, we are still left with no means to identify error versus mistake. **So, can we turn to frequency of a deviant form as a criterion? Sometimes, we can.** If, on one or two occasions, an English learner says "John cans sing," but on other occasions says "John can sing" it is difficult to determine whether "cans" is a

mistake or an error. If, however, further examination of the learner's speech consistently reveals such utterances as "John wills go," "John mays come," and so on, with very few instances of correct third-person singular usage of modals, you might safely conclude that "cans," "mays," and other such forms are errors indicating that the learner has not distinguished modals from other verbs. But because of the few correct instances of production of this form, it is possible that the learner is on the verge of making the necessary differentiation between the two types of verbs.

4.4. Attitudes towards Errors

There are two major schools of thought with respect to learner errors, namely *behaviorism* and *mentalism*. ***Behaviorism, maintains that if we are to get a perfect teaching result, errors should never be committed in the first place, and therefore the occurrence of errors is merely a sign of the present inadequacy of our teaching techniques. Behaviorists hold that errors occur as a result of preoccupation with the old habits and the interference of mother tongue. They also believe that errors are evidence of non-learning rather than wrong learning; therefore, they should not be allowed to happen.*** In the 1950s and 1960s the language teaching methods based on behavioristic principles (particularly Audiolingulism) emphasized the importance of massive manipulative practice of the language, often in a rather mechanical fashion, to ensure correctness. The drills were structured in such a way that it was difficult for the student to make many mistakes. Hence, he heard only good models and was encouraged by producing acceptable sentences all the time.

In the late 1960s, the mentalists, inspired by Chomsky's *Generative Linguistics*, put forward a different view of errors, which has gained wide acceptance. Contrary to the behaviorist perception that the learning of a new language is a struggle of overcoming the interference of the old habits and mother tongue influence, ***the mentalist holds that the learning of language is a constant process of making hypotheses about the target language.*** From this perspective, human learning is fundamentally a process that involves the making of mistakes. ***Mistakes, misjudgments, miscalculation, and erroneous assumptions form an important aspect of learning virtually any skill or acquiring information.*** Errors were now viewed in a much more positive light, as "windows" through which one may observe students' language learning process. As the student learns a new language, very often he does not know how to express what he wants to say. So, he makes a guess on the basis of his knowledge of his mother tongue and of what he knows of the foreign language. ***The process is one of hypothesis formulation and refinement, as the student develops a growing competence in the language he is learning.*** He moves from ignorance to mastery of the language through transitional stages, and ***the errors he makes are to be seen as a sign that learning is taking place.*** The currently advocated communicative competence also echoes this positive way of looking at errors.

The last three decades of the 20th century witnessed various tendencies towards errors within the mentalist tradition. In the 1970s, the methods based on Humanistic Approach (e.g. Counseling Learning) adopted a non-interventionist approach as error correction was deemed to undermine a stress-free learning environment. In the late 1970s the proponents of Natural Approach pointed out that in L1 acquisition, mistakes often go uncorrected, yet are eventually eradicated; error correction in this situation appears to be unnecessary, and to have little effect. In the 1980s the advocates of Communicative Language Teaching recognized the need for fluency practice which could lead to occasions when errors were allowed to pass uncorrected, though perhaps only temporarily. Since 1990s, the more recent strands of the communicative approach

(e.g. Task-based Language Teaching) tend to advocate an optimal balance between attention to form (and errors) and attention to meaning. Table 4.1. summaries the way teachers (T) in different language teaching methods have tackled students (S) more in the last century.

Table 4.1. Attitudes towards Errors in Different Teaching Methods

Teaching Method/ Approach	Typical Approach to the error
Grammar Translation (Late 19th Century)	Having the S to get the correct answer is very important. T should supply S with the correct answer, but error correction is not based on any theoretical principles.
Direct Method (Early 20th century)	T employs various techniques to get the S to self-correct.
Audio-Lingual Method Mid-20th century	If possible, S errors are avoided through T's awareness of where the S will have difficulty & restriction of what they are taught to say.
Silent Way (1970s)	S errors are a natural & inevitable part of the learning process. T uses S errors as a basis for deciding where more work is necessary. T works with the S in getting them to self-correct by relying on their inner criteria.
Suggestopedia (1970s)	Errors are corrected gently, with the teacher using a soft voice.
Counseling Learning (1970s)	Errors can be corrected only in a non-threatening manner, e.g. by repeating the correct form. The technique will depend on the linguistic and affective stage of the learner.
Total Physical Response (1970s)	T should be tolerant of S errors and only correct major errors in an unobtrusive manner. As S progress, T can correct more minor errors.
Natural Approach (1980s)	Error correction is unnecessary and counterproductive as it cannot affect the natural order of acquisition and also it undermines a stress-free learning environment.
Communicative Approach (1980s)	Fluency is the primary goal. Errors of form are tolerated during fluency-based activities. Such errors can be addressed later through accuracy-based activities.
Task-based Approach (1990s)	The primary attention is to meaning but focus on form in the context of communication is also important. T can use a variety of remedial techniques e.g. supplying the correct form by reformulating S errors.

Chapter 5

Practical considerations in EA

5.1. Classification of Errors

In order to achieve their goals, error analysts usually go through three consecutive steps followed by a fourth optional stage: **1) compiling a corpus of L2 learner deviations from the target language norms, 2) classifying these errors by type, 3) hypothesizing possible sources for the errors, 4) evaluating errors in terms of their impact on commendation, and finally, taking steps for 5) error prevention/correction.** In this section we will start by an examination of error taxonomies. In the next section, the subsequent stage of error analysis – identifying the source of the error – will be addressed, followed by the issue of error correction.

Once a corpus of errors had been compiled, the researcher would begin to identify and classify the errors into types. The result of grouping together and labeling subgroups within a corpus is known generally as a **taxonomy**. Various taxonomies for L2 learner errors have been used, a few of which are introduced below:

- A major distinction is made at the outset between **overt** and **covert** errors. **Overtly erroneous utterances are unquestionably ungrammatical at the sentence level. Covertly erroneous utterances are grammatically well formed at the sentence level but are not interpretable within the context of communication.** Covert errors, in other words, are not really covert at all if you attend to surrounding discourse (before or after the utterance). “*I’m fine, thank you*” is grammatically correct at the sentence level, but as a response to “*Who are you?*” it is obviously an error. A simpler and more straightforward set of terms, then, would be “**sentence-level**” and “**discourse-level**” errors.
- Errors can be categorized according to the way that they depart from the norm: **omission, addition, mis-selection, mis-formation and mis-ordering.** However, such surface-structure categories are very generalized and easily confused. Table 5.1. summarizes this classification with examples:

Table 5.1. surface-structure categories of error

type of error	description	error sample	target form
omission	an obligatory element is left out	*Is very hot.	It is very hot.
addition	an extra item has been added unnecessarily	*he made us to go.	He made us go.
mis-selection	wrong item has been used	*Men like fairs.	Gentlemen prefer blonds.
mis-formation	wrong form of the right word is used	*he is a good cooker.	He is a good cook.
mis-ordering	sentence components are in the wrong order	*I like very much chess.	I like chess very much.

- Errors may be classified in terms of the language system involved: **phonology or orthography, lexicon, grammar, and discourse.** Often, of course, it is difficult to

distinguish different levels of errors. A word with a faulty pronunciation, for example, might hide a syntactic or lexical error.

- Finally, two related dimensions of error, **domain** and **extent** can be considered in any error analysis. **Domain is the rank of linguistic unit or the breadth of the context (from phoneme to discourse) that must be taken as context in order to determine whether an error has occurred. Extent is the rank or size of the linguistic unit that would have to be deleted, replaced, supplied, or reordered in order to repair the sentence.** These categories help to operationalize the overt/covert distinction discussed above. So, in the erroneous expression, 'a scissors', the domain is the phrase, and the extent is the word (indefinite article) and in the example 'well, its a great hurry around' both domain and extent are the whole sentence.

5.2. Explaining the Source of Errors

Up to this point the task of EA has been essentially one of labeling subgroups within a corpus. And some error analyses stopped there. Others, however, went on to identify the source of the error. Error analysis recognized two major sources of errors: **L1 interference** and **L2 overgeneralization**. Besides L1 interference and overgeneralization of target language linguistic material, some of the other important suggested sources of L2 error include **context of acquisition or learning**, and **strategies of second language communication**. In what follows, all these concepts will be addressed in some detail.

L1 interference is the notion familiar from the Contrastive Analysis Hypothesis, but EA views it as just one of a set of potential sources for L2 error, rather than the overriding source. Nonetheless, **Interlingual transfer** is a significant source of error for all learners. The beginning stages of learning a second language are especially vulnerable to interlingual transfer from the native language, or interference. In these early stages, before the system of the second language is familiar, the native language is the only previous linguistic system upon which the learner can draw. While it is not always clear that an error is the result of transfer from the native language, many such errors are detectable in learner speech. Fluent knowledge or even familiarity with a learner's native language of course aids the teacher in detecting and analyzing such errors.

As we saw above, **overgeneralization** is another source of L2 error. One of the Major contributions of learner language research has been its recognition of sources of error that extend beyond interlingual errors in learning a second language. It is now clear that **intralingual transfer** (within the target language itself) is a major factor in second language learning. Negative intralingual transfer, or overgeneralization, can be illustrated in such utterances as "Does John can sing?" and "He goed". **Researchers have found that the early stages of language learning are characterized by a predominance of interference (interlingual transfer), but once learners have begun to acquire parts of the new system, more and more intralingual transfer – generalization within the target language – is manifested.** This of course follows logically from the tenets of learning theory. As learners progress in the second language, their previous experience begins to include structures within the target language itself. It is important to note that the teacher or researcher cannot always be certain of the source of an apparent intralingual error, but repeated systematic observations of a learner's speech data will often remove the ambiguity of a single observation of an error.

A third major source of error, although it overlaps with both types of transfer, is the **context of learning**. "**Context**" refers, for example, to the classroom with its teacher and its materials in the case of school learning or the social situation in the case of untutored second language learning. The research has shown that sociolinguistic context of natural, untutored language acquisition can give rise to certain dialect acquisition that may itself be a source of error. However, the errors induced by a formal instruction have received more attention in the SLA research.

In a classroom context the teacher or the text-book can lead the learner to make faulty hypotheses about the language. This is what is alternatively called a **false concept, transfer of training** or an **induced error**. Students often make errors because of a misleading explanation from the teacher, faulty presentation of a structure or word in a textbook, or even because of a pattern that was memorized in a drill but improperly contextualized. For example, in teaching the preposition *at* the teacher may hold up a box and say *I'm looking at the box*. However, the learner may infer that *at* means *under*. If later the learner uses *at* for *under* (thus producing **The cat is at the table* instead of *The cat is under the table*) this would be an induced error.

Another manifestation of language learned in classroom contexts is the occasional tendency on the part of learners to give uncontracted or inappropriately formal forms of language. We have all experienced foreign learners whose "*bookish*" language gives them away as classroom language learners. Such phenomena may be the result of **hypercorrection**. In error analysis, **hypercorrection refers to the incorrect use of a word, pronunciation or other linguistic feature in speaking as a result of the attempt to speak in an educated manner and in the process replacing a form that is itself correct**. For example, the use of "*whom*" instead of "*who*" in "*Whom do you think painted that picture?*" is an example of hypercorrection. Hypercorrections are sometimes used by a second language learner who is attempting to speak correctly or by a speaker of a non-standard variety of a language, when speaking formally. This may result in the speaker using more self-correction and using more formal vocabulary than speakers of a standard variety of the language.

And finally, another source of error is related to the **Communication strategies** which learners use to fill the gap in their knowledge. **Communication strategies refer to ways learners with limited command of language use to express a meaning in a second or foreign language**. Learners obviously use production strategies in order to enhance getting their messages across or compensate for missing knowledge, but at times these techniques can themselves become a source of error. For example, the learner may not be able to say *It's against the law to park here* and so he/she may say *This place, cannot park*. For *handkerchief* a learner could say *a cloth for my nose*, and for *apartment complex* the learner could say *building*. Table 5.2. summarizes the most common sources of error in SLA.

Table 5.2. Common sources of L2 error

Type of error	Example	Explanation
Interlingual (Interference)	*The book which I gave it to you.	The object pronoun in a relative clause, which is omitted in English, is included in Persian due to Persian interference.
Intralingual (Overgeneralization)	*I don t know what time is it.	The speaker has perhaps overgeneralized the rule of subject-auxiliary inversion and applied it here to an embedded WH-question incorrectly.
Simplification (Redundancy reduction)	*I studied English for two year.	The omission of the plural marker following the noun year could be termed redundancy reduction as no information is lost, i.e. the cardinal number already signals plurality.
Communication-based (Word coinage)	*learner uses 'airball' for 'balloon'	The learner incorrectly labels an object but successfully communicates a desired concept.
False concept (Teacher induced)	*'She cries as if the baby' for 'She cries like a baby'.	The teacher had given the student a definition of "as if" meaning 'like' without explaining the necessary structural change.

5.3. Error Evaluation

Where the purpose of error analysis is to help learners learn an L2, there is a need to evaluate errors. Some errors can be considered more '*serious*' than others because they are more likely to interfere with the *intelligibility* of what someone says. Language teachers will want to focus their attention on these. This will guide them in deciding on the error correction strategy they will eventually adopt. Language teachers are generally advised to intervene when the learners' errors are *frequent, global (interfere with the comprehensibility of the text)*, and *stigmatizing (would cause a negative evaluation from native speakers)*.

As far as the severity of errors is concerned, they can be classified as either *global* or *local*. **Global errors are those in the use of a major element of sentence structure (e.g. missing, wrong or misplaced connectors), which makes a sentence or utterance difficult or impossible to understand.** Global errors hinder communication; they affect overall organization of the utterance and prevent the hearer from comprehending some aspect of the message. For example, the following errors in whatever context may be difficult to interpret:

*"Well, its a great hurry around."

*"I like take taxi but my friend said so not that we should be late for school."

Local errors, on the other hand, usually do not prevent the message from being heard, often because there is only a rumor violation of one segment of a sentence (e.g. the verb), allowing the hearer/reader to make an accurate guess about the intended meaning. The following are examples of local errors:

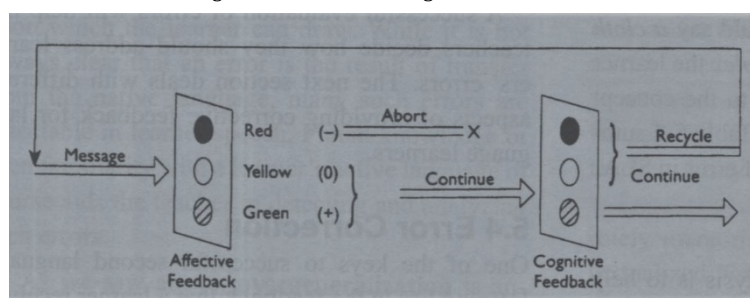
*"Give me a scissors."

*"If I heard from him, I will let you know."

5.4. Error Correction

One of the keys to successful second language learning lies in the feedback that a learner receives from others. **Communication Feedback Model** offered one of the first models for approaching error in language classrooms. It describes how affective and cognitive feedback can affect the message-sending process. Figure 5.1. metaphorically depicts what happens in this model.

Figure 5.1. Affective & Cognitive Feedback



The "green light" of the affective feedback mode allows the sender to continue attempting to get a message across; a "red light" causes the sender to abort such attempts. Unlike what this figure may lead one to believe, the affective feedback does not necessarily precede the cognitive feedback; both modes can take place simultaneously. The traffic signal of cognitive feedback is the point at which error correction enters. A green light here symbolizes non-corrective feedback that says "*I understand your message.*" A red light symbolizes corrective feedback that can take on numerous possible forms (outlined below) and causes the learner to make some kind of alteration in production. The "yellow light" represents those various shades of color that are interpreted by the learner as falling somewhere in between a complete green light and a red light, causing the learner to adjust, to alter, to recycle, to try again in some way. The two types and levels of feedback are charted below:

Affective Feedback

Positive: Keep talking; I'm listening.

Neutral: I'm not sure I want to maintain this dialog.

Negative: This conversation is over.

Cognitive Feedback

Positive: I understand your message; it's clear.

Neutral: I'm not sure if I correctly understand you.

Negative: I don't understand what you are saying.

Various combinations of the two major types of feedback are possible. For example, a person can indicate positive affective feedback ("*I affirm you and value what you are trying to communicate*") but give neutral or negative cognitive feedback to indicate that the message itself is unclear. Negative affective feedback, however, regardless of the degree of cognitive feedback, will likely result in the abortion of the communication.

The most useful implication of Communication Feedback Model for a theory of error treatment is that *cognitive feedback must be optimal in order to be effective. Too much negative cognitive feedback – repeated interruptions, corrections, and overt attention to errors – often leads learners to shut off their attempts at communication.* They conclude that so much is wrong with their production that there is little hope to get anything right. On the other hand, *too much positive cognitive feedback – teachers' willingness to let errors go uncorrected and indicate understanding when understanding may not have occurred – serves to reinforce the errors of the learner.* The result is the persistence, and perhaps the eventual *fossilization*, of such errors. *The teacher's task is to strike the optimal balance between positive and negative cognitive feedback: providing enough green lights to encourage continued communication, but not so many that crucial errors go unnoticed, and providing enough red lights to call attention to those crucial errors, but not so many that the learner is discouraged from attempting to speak at all.*

Error correction is a form of feedback, and there is a wide literature on the topic of feed-back in general and error treatment in particular. Earlier literature on error treatment classified a number of options available to the teacher when addressing learners' errors. For example, we can begin with identifying a series of questions that research had addressed: should errors be corrected? If so, when? Which errors? How should they be corrected, and by whom? We can address the concept of error treatment by introducing seven "basic options" which were complemented by eight "possible features" within each option. All of the basic options and features within each option are possible modes of error correction in the classroom (Table 5.3.).

Having noticed an error, the first and crucial decision the teacher makes is whether or not to treat it at all. As mentioned above, some methods recommend no direct treatment of error at all. They argued that in "natural," untutored environments, nonnative speakers are usually corrected by native speakers on only a small percentage of errors that they make. Native speakers were found to attend basically only to global errors and then usually not in the form of interruptions but at transition points in conversations.

Table 5-3: Basic options and features of error treatment

Basic Options	Possible Features
<ol style="list-style-type: none"> 1. To treat or to ignore 2. To treat immediately or to delay 3. To transfer treatment (to other learners) or not 4. To transfer to another individual, a subgroup, or the whole class 5. To return, or not, to the original error maker after treatment 6. To permit other learners to initiate treatment 7. To test for the efficacy of the treatment 	<ol style="list-style-type: none"> 1. Fact of error indicated 2. Location indicated 3. Opportunity for new attempt given 4. Model provided 5. Error type indicated 6. Remedy indicated 7. Improvement indicated 8. Praise indicated

Nevertheless, the students in the classroom generally want and expect errors to be corrected and more recent research has clearly indicated that in many occasions learners do benefit from teachers' corrective feedback. Therefore, the primary question remains as to whether a particular deviant utterance should be addressed by the teacher. In order to do so, the teacher needs to develop the intuition, through experience and established theoretical foundations to make sure he/she has adopted an informed and appropriate position at given moments.

One step toward developing such intuitions may be taken by considering the model below which illustrates a series of observations and evaluations the teacher has to make when a student has uttered some deviant form in the classroom. According to this model, after a student produces a deviant utterance, the information is accessed, processed, and evaluated instantaneously, and finally a decision is reached as what the teacher should do about the deviant form. This process is summarized below in the form of ten successive screens. Of course, no sequence is implied here.

1. The teacher identifies the type or domain of deviation (lexical, phonological. etc.)
2. Often, but not always, he can identify its source of error, which will be useful in determining how he might treat the deviation.
3. The complexity of the deviation may determine not only whether to treat or ignore but how to treat, if that is the decision. In some cases a deviation may require so much explanation, or so much interruption of the task at hand, that it isn't worth treating it.
4. Teachers' most crucial and possibly the very first decision among these ten factors is to quickly decide whether the utterance is interpretable (local) or not (global). **Local errors can sometimes be ignored for the sake of maintaining a flow of communication. Global errors by definition often call for some sort of treatment since the message may otherwise remain garbled.**
5. The teacher needs to make a guess at whether it is a performance slip (mistake) or a competence error; this is not always easy to do but a teacher's intuition on this factor will often be correct. Mistakes rarely call for treatment, while errors more frequently demand some sort of teacher response.
6. Based on his knowledge about the learner, the teacher makes a series of instant judgments about the learner's language ego fragility, anxiety level, confidence, and willingness to accept correction. If, for example, the learner rarely speaks in class or shows high anxiety and low confidence when attempting to speak, the teacher may decide to ignore the deviant utterance.
7. Teacher's knowledge of the learner's linguistic stage of development will help him decide how to treat the deviation.
8. Teacher's pedagogical focus at the moment will help him to decide whether or not to treat the error. For example, is this a form-focused task? Does this lesson focus on the form that was deviant? What are the overall objectives of the lesson or task?
9. The teacher also considers the communicative context of the deviation. For example, was the student in the middle of a productive flow of language? How easily could he be interrupted?
10. Amid all this, teacher's own style comes into play. For example, is he generally interventionist or not? If he normally tends to make very few error treatments, a treatment now on a minor deviation would be out of place and misinterpreted by the student.

The teacher is now ready to decide whether to treat or ignore the deviation. If he decides to do nothing, he just moves on. But if he decides to do something in the way of treatment, as discussed earlier, he has a number of treatment options. For example, he has to decide when to treat, who will treat, and how to treat, and each of those decisions offers a range of possibilities as indicated in the chart below.

As for the issue of when teachers tend to correct errors, it was reported that the teachers tend to correct more errors on occasions when there is greater form-focus in the class. Regarding the question of 'which errors?' It was shown that lexical, discourse and content errors receive more attention than errors in phonology and grammar. Moreover, studies on Error evaluation indicate the necessity to consider exactly who is doing the correction. Possible answers to the

question of who should correct are the teacher, the learner making the error and other learners. There is research to indicate that all these three can occur in various situations. Also, considerable differences exist between native speaker and nonnative speaker teachers as regards the focus of corrections, *with the native teachers being more concerned about the fluency and non-native teachers making more form-focused interventions*. On the issue of how best to treat errors, there have been various taxonomies of error modes, all indicating the rich set of possibilities open to the teacher. The initial questions, as we saw above, were *'to treat or to ignore completely'* and *'to treat immediately or delay'*. The remaining ones are classified as possible features of error treatments, such as 'blame indicated', 'location indicated' and so on.

5.4. Evaluation of Error Analysis

Before we undertake an evaluation of EA, we need to bear in mind that Error analysis in its original form, was an inductive phase of enquiry in SLA research. That is, it worked from corpora of collected samples of error and tried to draw generalizations about patterns in those samples. While the observation of such patterns is an important step in moving towards an understanding of SLA, work since the 1980s has on the whole been deductive. Researchers start with theory about SLA which generates hypotheses, which are themselves then tested against error patterns. Deductive approaches are potentially much richer sources of explanation than inductive approaches, and for that reason few researchers nowadays conduct error analyses of the type described above. Now let's consider some of the criticisms directed at EA in the literature.

- EA is characterized by an overemphasis on *production data*. Language is speaking and listening, writing and reading. The comprehension of language is as important as production. Since production lends itself more easily to analysis, it becomes the prey of researchers. However, *comprehension data* is equally important in developing an understanding of the process of SLA.
- EA is criticized for giving too much attention to learners' errors. While errors indeed reveal a system at work, we can become so preoccupied with noticing errors that the correct utterances in the second language go unnoticed. In our observation and analysis of errors we must beware of placing too much attention on errors and not lose sight of the value of clearly expressed language that is a product of the learner's progress and development. While the diminishing of errors is an important criterion for increasing language proficiency, the ultimate goal of second language learning is the attainment of communicative fluency.
- It has been shown that EA fails to account for the strategy of avoidance. A learner who for one reason or another avoids a particular sound, word, structure, or discourse category may be assumed incorrectly to have no difficulty therewith. For example, researchers have found that Chinese and Japanese learners of English make fewer errors on relative clauses than Spanish and Farsi speakers. But the reason they do so is because they produce fewer relative clauses. We can conclude that Chinese and Japanese speakers avoid producing relative clauses because they know they are very different in English from Chinese and Japanese. *The absence of error therefore does not necessarily reflect native-like competence.*

- It was observed that EA can keep us too closely focused on specific languages rather than viewing universal aspects of language. The language systems of learners may have elements that reflect neither the target language nor the native language, but rather a universal feature of some kind. This view is in keeping with the bio-programming theories of SLA.
- A number of problems arose with the use of error taxonomies as an approach to the study of SLA. For a taxonomy to be effective it should be easy to classify items uniquely under one category or another. But in the case of error taxonomies it has often been difficult to determine why an error should be classified in one way rather than another.

We can conclude that the faults of EA were too obvious for it to continue to serve as the primary mode of SLA analysis. By the late 1970s, EA became more of a research tool for specific problems and was incorporated into overall performance analysis which looks at the totality of learner language performance. By the end of the decade, the theory of interlanguage and more general SLA theory, to which EA contributed, had prevailed. Nowadays, it can be argued that EA has survived only in the form of measures of accuracy in SLA research.

Chapter 6

Interlanguage theory

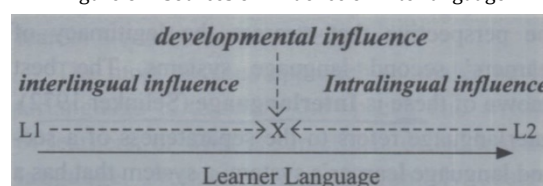
6.1. Introduction to IL Theory

The theory that motivated the research in both EA and later developments in SLA became known as interlanguage theory. The interlanguage (IL) theory was in sharp contrast to CA. As we saw above, *CA was criticized on the basis of its behaviorist accounts of language learning as it viewed L2 acquisition as a mechanical process of habit formation where already learned habits (L1) interfered with the learning of new habits (L2)*. Thus, in this model, the challenge facing the L2 learner was to overcome the interference of L1 habits. Therefore, CA sought to identify the features of L2 that differed from those of the L1 so that learners could be helped to form the 'new habits' of the L2 by practicing them intensively. *EA, in contrast, became closely associated with nativist views of language learning and the emergence of interlanguage theory*. Whereas behaviorism emphasized the role of environmental stimuli (*nurture*), nativist theories emphasized the mental processes that occur in the '*black box*' of the mind when learning takes place (*nature*).

From a nativist perspective, the learner is no longer seen to be a *passive* recipient of TL input, but rather someone who plays an *active* role, *processing input, generating hypotheses, testing them and refining them*. *In this model, linguistic data (input) is processed internally by a pre-programmed cognitive faculty (UG) resulting in a knowledge system (competence) that is then used in actual performance (output)*. *The cognitive mechanisms dictate both what is attended to in the input (i.e. noticed), and how what is attended to is processed as L2 knowledge (i.e. the learner's intake)*. *The intake in turn serves as the basis for the learner's interlanguage*.

Interlanguage is the term used to describe the grammatical system that a learner creates in the course of learning another language. It is neither their first language system, nor the target language system but occupies a transitional point between the two. This interlanguage is seen as a rather independent system in its own right, and not simply a degenerate form of the target language. *This new approach to learner language replaced the dichotomous view (native language versus target language) with a continuously variable or scalar view (native language → interlanguage → target language)*. It also reflects the learner's evolving system of rules. Some of these rules may be influenced by the first language (through transfer), others by the target language (through generalization), while others are attributed to innate and developmental principles (i.e. the universal grammar). Figure 6.1. illustrates the three kinds of influence on learner language mentioned so far.

Figure 6.1. Sources of Influence on Interlanguage



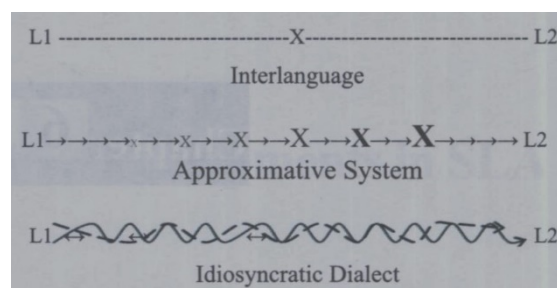
Interlanguage is said to be *systematic* because learners behave '*grammatically*' in the sense that they draw on the '*rules*' they have internalized – a view that casts doubt on the use of the term '*error*' itself, as learners' utterances are only erroneous with reference to target language norms, not to the norms of their own grammars. One way that interlanguages show that they are systematic is that they follow predictable stages, no matter what the learner's first language is (*order of acquisition*). At a very early stage, interlanguage takes on the form that has been called the *basic learner variety*. This is characterized by very basic syntax and few if any grammatical word endings (inflections). Interlanguages are constantly evolving. When they stop doing so, they stabilize at a point some way from the target (*fossilization*). As it happens, very few second language learners achieve native-like proficiency. This is an argument for recognizing the legitimacy of interlanguage, and for accepting that *partial competence* rather than *full competence*, is a valid objective in second language learning.

6.2. Fundamental Aspects of IL

In recent years researchers have come to understand that second language learning is a process of the creative construction of a system in which learners are actively testing hypotheses about the target language from a number of possible sources of knowledge: *knowledge of the native language, limited knowledge of the target language itself, knowledge of the communicative functions of language, knowledge about language in general, and knowledge about life, people, and the universe around them*. Learners, in acting upon their environment, construct what to them is a legitimate system of language in its own right – a structured set of rules that brings some order to the linguistic chaos that confronts them.

A number of terms have been coined to describe the perspective that stresses the legitimacy of learners' second language systems. The best known of these is Interlanguage. *Interlanguage refers to the separateness of a second language learner's system, a system that has a structurally intermediate status between the native and target languages*. Another term was *Approximative System* which stressed the *successive approximation to the target language*. Still an alternative jargon was called *idiosyncratic dialect* to connote the idea that *the learner's language is unique to a particular individual, that the rules of the learner's language are peculiar to the language of that individual alone*. These three jargons with their different emphases are illustrated below:

Figure 6.2. Representations of Learner's Second Language Systems



While each of these labels emphasizes a particular notion, they share the concept that second language learners are forming their own self-contained linguistic systems. *This is neither the system of the native language nor the system of the target language, but a system based*

upon the best attempt of learners to bring order and structure to the linguistic stimuli surrounding them. The Interlanguage Hypothesis led to a whole new era of second language research and teaching and presented a significant breakthrough from the CAH.

Since its conception in the 1970s, interlanguage theory has evolved considerably but its central principles have remained largely intact. The main premises of interlanguage theory are introduced below.

1. The learner constructs an **implicit system** of abstract linguistic rules which underlies comprehension and production of the L2. This system of rules is viewed as a 'mental grammar' and is referred to as an 'interlanguage'.
2. Some researchers have claimed that the systems learners construct contain **variable rules**. That is, they argue that learners are likely to have competing rules at any one stage of development. However, other researchers argue that interlanguage systems are **homogeneous** and that variability reflects the **mistakes** learners make when they try to use their knowledge to communicate. **These researchers see variability as an aspect of performance rather than competence.**
3. The learner's grammar is **permeable**. That is, the grammar is open to influence from the **outside** (i.e. through the input). It is also influenced from the **inside**. For example, the omission, overgeneralization, and transfer errors which we considered in the previous chapter constitute evidence of internal processing.
4. The learner's grammar is **transitional**. Learners change their grammar from one time to another by adding rules, deleting rules, and restructuring the whole system. This results in an **interlanguage continuum**. That is, learners construct a series of mental grammars or interlanguages as they gradually increase the complexity of their L2 knowledge. For example, initially learners may begin with a very simple grammar where only one form of the verb is represented (e.g. 'paint'), but over time they add other forms (e.g. 'painting' and 'painted'), gradually sorting out the functions that these verbs can be used to perform.
5. The learner's grammar is likely to **fossilize**. It is suggested that only about five percent of learners go on to develop the same mental grammar as native speakers. The majority stop some way short. The prevalence of **backsliding** (i.e. the production of errors representing an early stage of development) is typical of fossilized learners. **Fossilization does not occur in L1 acquisition and thus is unique to L2 grammars.**
6. Learners employ various **learning strategies** to develop their interlanguages. The different kinds of errors learners produce reflect different learning strategies. For example, omission errors suggest that learners are in some way simplifying the learning task by ignoring grammatical features that they are not yet ready to process. Overgeneralization and transfer errors can also be seen as evidence of learning strategies.
7. Learners also employ different kinds of **communication strategies** which contribute to the development of their interlanguages by putting their limited L2 knowledge to use. These are ways that help learners get around the fact that they may not know how to say something. Most communication strategies are directed at filling in the gaps in the learner's vocabulary knowledge.

Table 6.1. The Main Features of Interlanguage

Features of interlanguage	Explanation
Implicitness	Learners are not aware of the rules that comprise their interlanguage.
Systematicity	The system accounts for the regularities that are apparent in the learner's use of the L2.
Variability	At any stage of development, the learner employs different forms for the same grammatical structure. This variability may be random (free variation) or (systematic variation).
Permeability	The system is affected by new linguistic forms derived both externally from input and internally through such processes as overgeneralization.
transitional nature	The learner restructures his/her interlanguage grammar over time. Thus, development involves the learner passing through a series of stages.
potential fossilization	The learner may stop developing and thus fail to achieve a full native speaker grammar.
developed through learning strategies	Both interlingual (L1 transfer) and intralingual (overgeneralization) strategies contribute to the interlanguage development.
enriched by communication strategies	Learners use some techniques (e.g. paraphrase or mime) to compensate for gaps in or difficulty in accessing L2 knowledge while performing.

6.3. Stages of IL Development

There are many different ways to describe the progression of learners' linguistic development as their attempts at production successively approximate the target language system. Indeed, learners are so variable in their acquisition of a second language that stages of development defy description. However, four major stages of learner language development have been recognized:

1. The first is a stage of random errors, a stage that is called **pre-systematic**, in which the learner is only **vaguely aware that there is some systematic order to a particular class of items**. The written utterance "*The different city is another one in the another two*" surely comes out of a random error stage in which the learner is making rather **wild guesses** at what to write. Inconsistencies like "*John cans sing,*" "*John can to sing,*" and "*John can singing:*" all said by the same learner within a short period of time, might indicate a stage of experimentation and inaccurate guessing.
2. The second, or **emergent**, stage of learner language finds the learner growing in **consistency** in linguistic production. The learner has begun to discern a system and to internalize certain rules. **These rules may not be correct by target language standards**, but they are nevertheless legitimate in the mind of the learner. This stage is characterized by some **backsliding, in which the learner seems to have grasped a rule or principle and then regresses to some previous stage. This phenomenon of moving from a**

correct form to an incorrect form and then back to correctness is referred to as U-shaped learning. In general, the learner at this stage is still unable to correct errors when they are pointed out by someone else. Avoidance of structures and topics is typical. Consider the following conversation between a learner (L) and a native speaker (NS) of English:

L: I go New York.

NS: You're going to New York?

L: [doesn't understand] What?

NS: You will go to New York?

L: Yes.

NS: When?

L: 1972.

NS: Oh, you went to New York in 1972.

L: Yes, I go 1972.

3. A third stage is a truly **systematic** stage in which the learner is now able to manifest more consistency in producing the second language. While those rules that are stored in the learner's brain are still not all well-formed, and some of them conform to the above mentioned U-shaped processes, they are more internally self-consistent and, of course, **they more closely approximate the target language system. The most prominent difference between the second and third stage is the ability of learners to correct their errors when they are pointed out** – even very subtly – to them. Consider the English learner who described a popular fishing-resort area.

L: Many fish are in the lake. These fish are serving in the restaurants near the lake.

NS: [laughing] The fish are serving?

L: [laughing] Oh, no, the fish are being served in the restaurants!

4. A final stage, which some researchers call **stabilization**, is parallel to what others call a **post-systematic stage**. Here the learner has relatively few errors and has mastered the system to the point that fluency and intended meanings are not problematic. **This fourth stage is characterized by the learner's ability to self-correct.** The system is complete enough that attention can be paid to those few errors that occur and corrections be made without waiting for feedback from someone else. At this point learners can stabilize too fast, allowing minor errors to slip by undetected, and thus manifest **fossilization** of their language.

Table 6.2. Stages of Interlanguage Development

Stage	Features
Pre-systematic (random errors)	<ul style="list-style-type: none"> • Little awareness of the systematicity in language • Inconsistencies indicating a stage of experimentation • Inaccurate and wild guessing in language use
Emergent	<ul style="list-style-type: none"> • Growing consistency in language use • Beginning to discern a system and internalizing certain rules • Alternating between applying rules accurately and inaccurately • Avoiding unfamiliar structures and topics • Learners' inability to correct errors when pointed out to them
Systematic	<ul style="list-style-type: none"> • Language use based on more internally self-consistent rules • Language use approximating the target language system • Learners' ability to correct errors when pointed out to them
Post-systematic (stabilization)	<ul style="list-style-type: none"> • Mastering the system with fluency and reasonable accuracy • Learners' ability to self-correct without waiting for other feedback • Potential quick stabilization resulting in fossilization of errors

6.4. Fossilization in IL Development

All learners in all areas can experience uneven lines of progress, and in many cases, especially in advanced stages of learning, those lines can reach an apparent "plateau" for a considerable period of time. It is quite common to encounter in a learner's language various erroneous features that persist despite what is otherwise a reasonably fluent command of the language. This phenomenon is most notable in "foreign accents" in the speech of many of those who have learned a second language after puberty. Syntactic and lexical errors can also persist in the speech of those who have learned a language quite well. ***The relatively permanent incorporation of incorrect linguistic forms into a person's second language competence has been referred to as fossilization.*** In theory, such deviant forms are said to be resistant to correction. However, some researchers doubt this, and prefer the term ***stabilization*** to fossilization, because this leaves open the possibility for further development at some point in the future.

There are various theories as to what causes fossilization. It is a well-known phenomenon in learners who have acquired their second language in ***naturalistic*** conditions. ***So it has been hypothesized that the lack of instruction, especially the lack of a focus on form, is the main cause.*** This is used as an argument for giving explicit attention to grammar. Another theory is that fossilization may be due to ***the lack of negative feedback on errors***, a view that is used to justify correction. Fossilization may also be due to ***the fact that learners have not been 'pushed' to make their output more accurate.*** Yet another theory argues that some learners have no

social motivation to improve their interlanguage. Once they can meet their basic communicative needs, **fossilization** (or **pidginization**) is likely to occur because they are not sufficiently motivated to want to pass as members of the target language community (the process of **acculturation**). Now that it is accepted that few if any second language learners achieve native-like proficiency, the concept of fossilization is viewed less negatively. It is being replaced by the idea of **partial competence**. In other words, for many learners it may be more realistic to aim for a 'working knowledge' of the target language. This is also consistent with the more pragmatic objectives of learning English as an international language.

Finally, we can conclude that both **internal** and **external factors** can lead to fossilization. Beside the extrinsic elements of feedback and exposure, the presence or absence of internal motivating factors, of seeking interaction with other people, of consciously focusing on forms, and of one's strategic investment in the learning process can affect the process of fossilization.

6.5. Variability in IL

There is ample evidence in SLA to suggest that learner language displays significant systematicity; however, a pervasive feature of SLA is its variability. The variability exists both across learners and within individual learners. ***The inter-learner variability can be observed in different learners who despite starting from the same point, and exposed to the same conditions, exhibit significant differences in terms of the rate and the outcomes of learning.*** Factors that might account for such variability may be internal, such as the ***learner's first language, attitudes, motivation and learning style, or they may be external to the learner, such as the amount and type of exposure, the availability of practice opportunities, and whether or not the learner is receiving instruction.*** Table 6.3. summarizes some of the factors that can contribute to inter-learner variability.

Table 6.3. Factors Contributing to Inter-learner Variability

Major Categories	Variables
Contextual	second/foreign language context, type of input, amount of exposure
Educational	level of education, field of study, educational system
Interlingual	phonological, lexical, grammatical interference
Biological	age, sex, hemispheric specialization
Cognitive	intelligence, world knowledge, learning style/strategy, tolerance of ambiguity
Pantonality /Affective	ego permeability, self-esteem, risk-taking, motivation, anxiety, empathy, perseverance, extro-version/introversion, interest/need, willingness to communicate
Social / Cultural	social distance to L2, attitude, acculturation, sense of belonging, cultural stereotypes

Also, there is variability within individual learners. For example, learners sometime make an error in the use of a specific target language structure and sometimes do not. Also, they may use more than one way of expressing the same idea, more or less interchangeably, such as:

"Yesterday the thief steal the suitcase."

"Yesterday the thief stealing the suitcase."

"Yesterday the thief stole the suitcase."

The identification of a 'stage' of development in the sequence of acquisition does not mean that learners consistently make use of a single form among others that they use during the same period. In fact, as we saw above, at any one stage of development the learner will employ different forms for the same grammatical structure. For example, in the case of the past tense, at any one time, a learner may mark some verbs correctly for past tense, fail to mark others at all, and overgeneralize the regular *-ed* and the progressive *-ing* forms with yet other verbs.

However, these observations do not invalidate the claim that learner language is systematic since it is possible that variability is also systematic. That is, we may be able to explain, and even predict, when learners use one form and when another.

One of the examples of systematic interlanguage variation can be found in employing the past tense structure in English. When learners begin to use past tense markers (either irregular markers as in *'ate'* or regular markers as in *'painted'*), they do not do so on all verbs at the same time. Learners find it easier to mark verbs for past tense if the verb refers to events (for example, *'arrive'*), somewhat more difficult to mark verbs that refer to activities (for example, *'sleep'*), and most difficult to mark verbs that refer to states (for example, *'want'*).

The kind of verb also influences the kind of errors learners make. For example, with activity verbs learners are more likely to substitute a progressive form for the past tense form:

*After that the weather was nice so we **swimming** in the ocean.*

In contrast, with state verbs they substitute the simple form of the verb:

*Last night everything **seem** very quiet and peaceful.*

Learners, then, pass through highly complex stages of development. These stages are not sharply defined, however. Rather they are blurred as learners oscillate between stages.

One of the most fruitful areas of learner language research has focused on the variation that arises from the difference between classroom contexts and natural situations outside language classes. As researchers have examined instructed second language acquisition, it has become apparent not only that instruction makes a difference in learners' success rates but also that the classroom context itself explains a great deal of variability in learners' output.

One of the current debates in SLA theory centers on the extent to which variability can indeed be systematically explained. The concept of variability in learner language has been addressed in different ways by different research paradigms. In the linguistic approach, the variability has been largely ignored. Specifically, the linguists in the Chomskyan tradition adopt what is called *homogeneous competence paradigm*. In this approach, variation is seen as a feature of performance rather than of the learner's underlying knowledge system. The general claim is that in order to study language it is necessary to abstract what learners 'know' from what they 'do'. This involves various kinds of idealization through which the linguist gains access to data that are invariable and so can be used to investigate the learner's linguistic competence. The

second approach to interlanguage variability is essentially *psycholinguistic* in nature. In contrast to the purely linguistic approach, in this model the variation is studied with reference to the internal mechanisms that influence the learner's ability to process L2 knowledge under different conditions of use (e.g. whether the linguistic task is planned or unplanned). Still a third way of tackling the variability is recognizing the *sociolinguistic* factors which affect the learner language. This involves studying language in relation to social context, e.g. investigating the variability which arises within the speech of a single speaker as a result of changes in situational context.

Therefore, we can conclude that, ***although some variability may be random in the initial stages of interlanguage development (free variation), in later stages it will be largely systematic (systematic variation) in the sense that it is possible to identify the probabilities with which the different forms will occur in accordance with such factors as the type of structure, addressee and the availability of time to plan utterances.***

6.6. Developmental Patterns in IL

SLA has focused on how a language is learned as a natural, untutored process by investigating what learners do when exposed to the L2 in communicative settings.

In such circumstances, some L2 learners, particularly if they are children, undergo a ***silent period. That is, they make no attempt to say anything to begin with. Of course, they may be learning a lot about the language just through listening to or reading it.*** The silent period may serve as a preparation for subsequent production. Some learners talk to themselves in the L2 even when they decline to talk to other people.

When learners do begin to speak in the L2 their speech is likely to manifest two particular characteristics. One is the ***emergence of such formulaic chunks and fixed expressions*** like 'How do you do?', 'I don't know', 'Can I have a ...?', 'My name is ...' which figure very prominently in early L2 learning. They provide learners with the means of performing useful language functions such as greetings and requests. These ready-made chunks of language can give a mistaken impression of competence.

The second characteristic of early L2 speech is ***propositional simplification. Learners find it difficult to speak in full sentences so they frequently leave words out.*** For example, a learner who wanted the teacher to give him a blue crayon but said only: 'Me no blue.' meaning 'I don't have a blue crayon'. Interestingly, this reduced speech is very similar to the kind of speech children produce in the early stages of learning their mother tongue. The occurrence of this kind of basic language appears to be a universal of both first and second language acquisition.

In time, though, learners do begin to learn the grammar of the L2. This raises other questions. One concerns the acquisition order. Do learners acquire the grammatical structures of an L2 in a definite order? For example, do they learn a feature like progressive *-ing* (as in 'painting') before a feature like past tense *-ed* (as in 'painted'). Research in this area has shown that learners do seem to find some grammatical features easier than others, so it is quite possible that acquisition follows a definite order. Another question concerns the sequence of acquisition of particular grammatical structures, such as past tense. Do learners learn such structures in a single step or do they proceed through a number of interim stages before they master the target structure?