Chapter – 2

THEORETICAL BACKGROUNDS

2.0 INTRODUCTION

In this chapter the researcher has done his best to include as much as possible, all the topics and technical terms that are theoretically necessary for the present study and are inevitably needed to serve as a strong background which makes Error Analysis (EA) easily understandable. Excluding the introduction and conclusion, the chapter is divided into six major sections. The first section, in short, surveys Contrastive Analysis (CA), its hypothesis, its assumptions and versions, and the criticism levelled at the theory. Lapses, mistakes, and errors are defined and introduced in the next section.

The third section deals with EA, its assumptions, its criticism, and its importance. In the fourth section the discussion, is centered on the ‘Learner’s Language’ along with its various terminology’s. The fifth section discusses in detail the main procedures or steps of EA, i.e. data base, error identification, error classification, error explanation, and error gravity. The last section concentrates on previous studies conducted on EA with reference to Arabic literature in general and Palestinian Arabic literature in particular. The chapter ends with a conclusion.

2.1 Contrastive Analysis

During the 1950’s, one thought viewing the process of language acquisition and learning had been based on Behaviourism which had been embodied in the works of the psychologist Skinner (1957). In his ‘Verbal Behaviour’, Skinner (1957) viewed language acquisition and learning as the formation of habits or as a result of “the individual's learning a large number
of discrete elements" which through practice are manipulated in a rapid and automatic fashion (Scott & Tucker 1974:69).

Attracted by the Behaviouristic theory of language learning, some applied linguists tried to ease the second language learning by identifying the difficult areas in it in order to establish teaching materials purely based on the difficult areas of the second language. Those theoretical views had paved the ground and led to the emergence of Contrastive Analysis (CA). According to this approach (CA), the native language (NL) is systematically compared with the target language (TL) to find out the areas of differences and similarities between the systems or subsystems of NL and TL (Fisiak 1981).

2.1.1 Contrastive Analysis Hypothesis

It is appropriate to note that CA had started several years before 1950s especially in the works of Fries (1945) who called for scientific comparisons between NL and TL. Later in 1953 Haugen and Weinreich in their works on bilingualism laid down the theoretical foundations of CA. However, it was Lado's (1957) 'Linguistic Across Cultures' which has often been quoted as the first methodological procedure for CA (Chau 1975:123). Since then up to late 1960's CA was believed to have witnessed its heyday. Lado (1957:vii) made the purpose of the contrastive analyses mainly pedagogical when he attached words like 'discovery' and 'description' of the problems (Linguistic differences) to 'the speakers' or learners of TL. While learning second languages, the learners were found to face problems in the linguistic areas which were different from their counterparts in the native languages. This observation led Lado to form what had long been referred to as the Contrastive Analysis Hypothesis (CAH).

As described by Lado (1957) CAH maintains that "when a learner attempts to acquire a second language, he will made errors in the target language which are predictable from his native language and caused from his knowledge of it. That is, his native language will cause the production
of certain types of errors directly traceable to the structure of the native language”, quoted from Frith (1975:328).

2.1.2 Assumptions of Contrastive Analysis

The forementioned hypothesis of CA has sometimes been referred to as the assumptions of CA. As mentioned by Chau (1975:123) there are two main assumptions on which CA is based. The first assumption maintains that NL interferes with the learning of a second language (henceforth, L2). That is the L2 learner, while learning L2, transfers the habits of his NL into TL. Where the two structures or substructures are similar in both NL and TL, it is believed that no difficulties or errors will arise, hence positive transfer. Errors are expected to arise where NL and TL structures differ, hence negative transfer. A further distinction is made between divergent and convergent negative transfer. The former occurs when two or more forms (structures, sounds, etc.) in TL are considered one form in NL, whereas the latter occurs when two or more forms in NL are considered one form in TL (Tarone 1978). For more information on transfer, see section (2.5.4.2.1.1.) of this chapter. To reemphasize, the first assumption holds that NL interference is the major source of the errors an L2 learner is likely to make.

On the other hand, the second assumption maintains that the greater the difference between two same structures in NL and TL, the more difficult it is for the learner. In other words a contrastive analysis of two languages can reveal the differences between them based on which the difficulties that will face the L2 learners will be predictable. To put it differently, according to this assumption differences and difficulties are strongly correlated. Some researchers, for example, have long noted that “the higher the degree of similarity between the native and target phonological categories, the easier it is for the speaker to learn the target phonological categories and the converse has been held to be true” (Briere 1966:768).
Other researchers (Ajay 1995:34) add a third assumption which deals with the preparation of teaching and learning materials to reduce the effect of transfer and overcome the learning problems. This assumption pedagogically implies that the results of CA can be used to plan the “most effective materials” (Fries 1945:9), "prepare supplementary exercises" (Lado 1957:3), and perhaps help “the course developer, the language teacher, and the test writer” (Chau 1975:119) in improving their methods. This assumption however has received less attention; instead, the researchers have focussed on the first two assumptions.

2.1.3 Versions of CAH

In an attempt to verify CAH, the results obtained by the researchers have been in most cases found contradictory; some results confirmed the hypothesis; some confirmed part of it, and other refuted it completely. From this debate have emerged two versions of CAH. The first version is called CA apriori whereas the second is CA aposteriori; this terminological distinction was first proposed by Gradman (1971) also adopted by Schachter (1974). However, Wardhaugh (1970) and Oller and Ziahosseiny (1970) used a different terminology. They referred to CA apriori as the strong version and to CA aposteriori as the weak version of CAH.

Adopting here the second terminology, the strong version of CAH is said to be "a point by point analysis of the phonological, morphological, syntactic or other subsystems of two languages" (Schachter 1974:205). After the subsystems of the two languages are analyzed, the similarities and differences between them are sorted out, thus enabling the investigators to make predictions about what will be problematic for L2 learners. This predictive power is based on the assumption that where differences between the learner's NL and TL exist, there will be negative interference from NL. Rejecting this assumption, Oller and Ziahosseiny (1970:184) remark that the proponents of the strong version assume that CAH "seems to predict that the greater the difference, the greater the interference of the native with the target language."
At the other extreme falls the second version of CAH, namely the weak version. This version is explanatory rather than predictive. Citing Wardhaugh (1970) Svartvik (1973:8) reports that the weak version is an attempt “to explain already discovered deviations.” Paraphrasing Schachter (1974:206), when an L2 learner makes errors in some constructions in TL, the investigators focus on these constructions and compare them with their NL counterparts to explain why the errors occur. In this sense the weak version of CAH is said to be “a subcomponent of the more encompassing field of error analysis.” The proponents of this version maintain that investigators should better focus on what the learner actually does rather than predict what he will do. According to the proponents of this version, NL does not really interfere with L2 learning; instead it provides an escape hatch when the learner gets into a tight spot. Cited in Oiler and Zaihosseiny (1970:185) Newmark (1966) holds that “when the student does not know how to say something in the TL he pads from his NL. This is not really NL interference, rather it is simply not knowing something in the TL.”

Modifying CAH, Oiler and Zaihosseiny (1970:186) produced a third version of CAH which they called the 'moderate' version. This version is based on the principle of stimulus generalization. The two authors hold that “the categorization of abstract and concrete patterns (including time sequenced events) according to their perceived similarities and differences is the basis for learning; therefore wherever patterns are minimally distinct in form or meaning in one or more systems, confusion may result. Conversely, where patterns are functionally or perceptually equivalent in a system or systems correct generalization may occur.”

According to this version, the big difficulty consists in the constructions that require the most subtle distinctions, i.e. too delicate to notice or perceive. Thereby, the moderate version seems to confirm an old observation made by Wolff twenty years before the birth of the version. Wolff (1950:38) argues that it is easier for L2 learners to learn a completely new phoneme which does not exist in
their native languages than to learn a partially similar class in the TL that will involve negative transfer caused by the native phonological system. Notice however that Briere's (1968) study completely contradicts the above observation, and hence the moderate version. As argued by Briere, Selinker (1989:276) reports that "the learning of a completely new articulatory feature not in NL is very difficult." On the next page Briere is reported to conclude that "TL sounds which are close equivalents of NL system sounds whether phonemic or allophonic are easier to learn than TL sounds without such equivalents" (op.cit.p.277).

2.1.4 Criticism of CAH

Many researchers have criticized CAH most often referring to its inadequacy, failure, and deficiency. Indeed very much has been said in this respect, however the researcher will present the matter briefly. It is also important to note right from the beginning that most of the criticism levelled at CAH deals with the strong version of it.

To start with Baird (1967) and Oller and Zaihosseiny (1970) argue that part of what is wrong with CAH is that it does not take into account the extralinguistic factors, i.e. the errors which are not traceable to NL or TL. Some of these extralinguistic factors are noticed to be universal learning strategies. As reported by Chau (1975:124), errors caused by such strategies "are overlooked by CA." Second, with reference to the third assumption of CAH (preparation of teaching materials), Svartvik (1973:8) holds that CA cannot be effectively put to good use in teaching; thereby many teachers are dissatisfied with it. This view is also shared by F.A.Johansson (1973:8) who remarks that the teachers are interested in known-actual difficulties rather than theoretically predicted ones. Quoting Oller (1972) Ghadessy (1980:95) also points out that to know how a target structure contrasts with the native structure is of little importance to the language teacher who would rather like to know how to use the contrastive structure. Michaelides (1990) is also of this opinion; he does not recommend CA at all because the teachers already know what kind of errors their students are
likely to make. As a teacher he confirms that CA "has in many cases failed completely to predict serious learning problems" (p.28).

Third, an objection to CAH that is very often referred to is that the strong version of CAH sometimes predicts difficulties that do not occur especially in syntax, hence a waste of time (Whitman and Jackson 1972; Gradman 1971; Ritchie 1967). Fourth, Scott and Tucker (1974:70) hold that CA has remained limited because "no language has been well enough described to permit a complete comparison between it and any other language." It is good to recall here that such demands of complete linguistic descriptions of two languages seem to Wardhaugh (1970) and Frith (1975) very unrealistic.

Fifth, it has become increasingly apparent that not all L2 errors are interlingual as claimed by CAH. This fact has very often been referred to by the researchers who seem to disfavour CAH. However, researchers seem to disagree on the percentage of the errors traceable to NL. For example, Dulay and Burt (1973) report only 3% of the errors reflects the NL Spanish. By the way, this has so far been the only study reporting this very little percentage of interlingual errors; some researchers however refuse to rely on this study, criticizing its analytical procedures; for instance, according to his own experience in teaching English in Spanish schools, Abbott (1980:123) would say that "almost half of the errors (in Dulay and Burt's study) are influenced by Spanish." Likewise, Flick (1980) reports a high percentage (31%) of errors committed by adult Spanish learners of English. Apart from Dulay and Burt's study, most of the error percentages reported by different researchers fluctuate between 30% and 50%. That is CA can at its best predict and explain no more than half of the total number of errors.

Sixth, Chau (1975:124) points out that "Focusing mainly on language differences, CA ignores many other factors which affect the second language learner's performance, such as his own learning strategies, the training procedures, overgeneralizations of TL rules and so on." Besides, Chau questions the objectivity of CA methodological procedures and models
which being contrastivist-dependent often lead to “different outputs presenting different predictions” (o.cit.p.124).

Seventh, Ho (1986:39) raises the question of CA directionality. That is “is one and the same CA sufficient to handle both the learning of language A by speakers of language B and that of language B by speakers of language A, or is a different CA needed to cater for each direction?” This problem seems to be unsolved; on the one hand, some researchers (Filipovic 1975) assume that contrastive analyses are essentially unidirectional, hence two contrastive analyses are needed. On the other hand, James (1980) regards contrastive analyses as adirectional with mutual implications, hence one contrastive analysis is sufficient. Finally, talking about interlanguage and sociolinguistic variations with reference to CAH, in her ‘Myths about IL Phonology’ Beebe (1984) concludes that “CA, no matter how refined, will ultimately fail to account for all the variations in IL phonology” (p.174).

In fact much has been said against CAH; it is natural, on the other hand, to find the advocates of this hypothesis defending it. Schachter’s (1974) study provides strong evidence in favour of CAH. Her subjects were noticed to avoid the difficult structures, hence making less errors. The difficulty of such structures was argued to be predictable by CAH. In other words, to say that some L2 learners are found making few errors in certain difficult TL constructions may not provide evidence good enough to refute CAH because it may very likely be that the learners were trying to avoid producing such constructions due to their relative difficulty when compared with other preferred and paraphrased constructions.

Moreover, that there are great differences within error statistics may be attributable to the fact that the same error may be explained in several different ways. As Nickel (1989:296) notices, this allows researchers "of different directions to claim errors for their own theory." Thus the proponents of CAH argue that subjective interpretations of errors should not undermine the importance of CAH. It has furthermore been claimed that CA serves as a
scientific tool in language description and pedagogical grammar making (Spolsky 1979). Equally important is the fact that CA has also been believed to be useful in translation where NL and TL “syntactic structures must be compared” (Ghadessy 1980:96).

2.2 Lapses, Mistakes, and Errors

All people make mistakes when they speak or write either in their own languages or second or foreign languages they are learning. As Corder (1973) points out native speakers frequently make slips of tongue or pen or false starts. False starts usually occur when a native speaker changes his mind or the plans of his speech, or when he is not sure of what to speak. Native speakers also make confusions of structure as they lose the thread of the syntactic structure especially when they produce long utterances. Corder calls such deviations lapses which can be easily corrected when the speaker's attention is drawn to them. L2 learners may also make lapses (i.e. slips of tongue or pen, hesitations, etc.) which they may correct immediately before they finish their utterance or when the listener or reader draws their attention to the aberrant form.

On the other hand, native speakers sometimes produce fully grammatical and acceptable utterances, yet inappropriate. This sort of deviation results from misselection of words. Here the speaker fails to match the language with the situation, hence inappropriate selection. Such deviations often occur in technical discussions where the speaker fails to take care of subtle distinctions needed to refer to certain technical terms. Corder calls these deviations mistakes. L2 learners are also prone to mistakes. Mistakes can be referential or stylistic. Mistakes of reference occur when the speaker or learner does not know how to apply linguistic forms (words) appropriately to objects in the world outside; that is he does not know to what ‘words’ appropriately refer. For example, the learner, who says "I'm going to the college" to refer to a ‘school’, produces a grammatical and acceptable sentence, yet his sentence would be inappropriate, provided it is a ‘school’ where he is going to. Mistakes of reference are likely to occur when the learner does not share the people of the TL their categorization of the world. That
is either he perceives objects differently, or his knowledge of the world does not include such objects. Stylistic mistakes on the other hand occur when a learner uses 'slang' inappropriately. These mistakes are attributed to the learner's unfamiliarity with the social life of the TL people. For example, a learner telling a joke in TL using the social features (usually accompanying a joke) of his NL may make a stylistic mistake. Referential and stylistic mistakes are not erroneous, however inappropriate, because, according to Corder, they do not violate the linguistic rules of TL.

The third class of deviations deals with 'errors'. Errors are breaches of the linguistic code. They are not physical failures but the sign of an incomplete knowledge of the formation rules of TL. L2 learners very often fail to self-correct 'errors', which they are not aware of, even if their attention is drawn to them. It is appropriate to mention here that native speakers very rarely make 'errors' because they do not usually breach the code of their language. However, a native speaker may sometimes use his own code or register, hence idiosyncratic form. A poet, for instance, may violate a rule of his language for rhetorical purposes, yet his poetry, though idiosyncratic, is not considered erroneous, perhaps because he intentionally violates some rules. Ghadessy (1980:96) draws distinction between L2 learners' mistakes and errors. He maintains that mistakes are "a product of chance circumstances; they are errors of performance and thus unsystematic". On the other hand, he holds that errors are systematic revealing the learner's underlying knowledge of TL.

The researcher wishes to remark here that though Corder (1973) makes clear the distinction among lapses, mistakes, and errors, some researchers, based on the researcher's review of EA literature, seem to have confused lapses with mistakes and mistakes with errors. Lapses, for example, have been very often referred to as mistakes, whereas referential mistakes have been frequently classified under lexico-semantic or selectional errors.
2.3 Error Analysis

By the late 1960's and early 1970's, researchers, (Ritchie 1967; Richards 1970; Oller 1970; Gradman 1971; Dulay and Burt 1974) to name few, had reported that most of the results obtained from their studies on L2 learning were not in line with CAH. On the contrary, the majority of these studies had proved CAH inadequate and unsuccessful approach. Thereupon, researchers had attempted another approach which is now known as Error Analysis (EA). As Bhatia (1975) puts it, EA is directly concerned with L2 learners' performance, particularly the erroneous performance. Altenberg and Vago (1993) remark that according to this approach L2 learners' errors are examined without any preconceived notions as to their cause. The proponents of EA claim that many errors made by L2 learners do not result from NL interference but rather from the strategies employed by the learners themselves and also from complex constructions characteristic of TL.

2.3.1 Assumptions of Error Analysis

The main assumptions on which EA is based may be summarized as follows: First, it is assumed that EA will reveal to the investigator and teacher just what difficulties or problems the learners in fact have in L2 as such difficulties will show themselves in the errors (Schachter 1974:206). Second, it is assumed that "the frequency of errors is proportional to the degree of learning difficulties" (Chau 1975:120). Hence the frequency of specific errors will give evidence of their relative difficulty. Ho-Peng (1976:24) is also of this opinion; he holds that EA is a means of discovering "the major areas of difficulty for the students." Third, it is assumed that EA will have a diagnostic function and through proper evaluation of the errors will be able to overcome the difficulties. Fourth, it is assumed that EA will provide necessary empirical data to verify and supplement the contrastive studies (Chau 1975:120).
2.3.2 Criticism of Error Analysis

In spite of the substantial insights (intralingual and developmental factors) EA has contributed to the field of L2 acquisition and learning, it is argued that EA cannot theorize only on the basis of 'errors'; thereupon, the basic assumptions of EA are claimed to be limited and inadequate. In what follows I will discuss the main criticism levelled against EA. First, EA has long been criticised as it is a study only in the errors, whereas the correct forms are nearly neglected. Hammarberg (1973:29-34), for example, argues that EA approach does not take into account the analyses of non-errors which are essential for the therapy stage in a teaching programme as they can provide a useful tool for the teacher to make his teaching task more effective. Moreover, Altenberg and Vago (1983:442) argue that EA "can make direct claims about what a speaker's interlanguage rules are." It is therefore argued that in order to have a complete understanding of L2 learners' interlanguage rules and the strategies they employ while learning L2, it is necessary to analyze their interlanguage as a complete system unto itself.

Second, the significance of Schachter's (1974) study consists in the discovery of the avoidance strategy employed by her subjects. She found that the Chinese and Japanese students, unlike the Persian and Arab students, making less errors in the restrictive relative clauses. On the other hand, she found the Chinese and Japanese subjects, unlike the Persian and Arab subjects, producing a small number of relative clause sentences. This observation led Schachter to conclude that "if a student finds a particular construction in the TL difficult to comprehend it is very likely that he will try to avoid producing it" (p.213). However, it's apparent that Schachter confines this phenomenon to the syntactic subcomponent where the possibility of paraphrasing exists. On the other hand, since there is no such thing as phonological paraphrase, Schachter claims that "the avoidance phenomenon does not occur in the acquisition of the phonological subcomponent of the TL" (op.cit.p.212). In light of Schachter's findings, it is possible to argue that EA
fails to account for the strategy of avoidance especially in syntax. Consequently, the reliability of the first two assumptions of EA, mentioned in the previous section, is questionable. Also clear becomes the fact that the frequency of occurrence of certain syntactic errors should no more be accepted as the only criterial judgement of difficulty.

Third, Chau (1975) raises the question of how one defines 'error' and maintains that it has been customary to define errors in terms of acceptability or nonacceptability by native speakers. However, the various degrees of acceptability make it difficult for the error analyst to decide what is right and what is wrong. To put it differently, it is possible for two educated native speakers to differ as to whether certain items are acceptable or unacceptable. Strevens (1964), therefore, points out that the identification of errors is essentially subjective. Here Chau (1975:122) criticizes EA for its "lack of objectivity" in the error-identification procedures. The phenomenon of subjectivity can even be extended to the problem of error-classification. Thereby, where errors are ambiguous and hence too difficult to unambiguously categorize, the final decision is subjectively determined by the error analyst as to whether the error is for example, syntactic or lexical. In light of this criticism, researchers also question EA ability to explain errors objectively. That is, on what bases can an error be interlingual or intralingual? Other researchers question the statistical analysis of errors suggesting more sophisticated statistical treatment of errors which can show the relation of one factor or strategy to another and the significance of such factor or strategy.

2.3.3 Importance of Error Analysis

The study of L2 learners' errors has socio-psycholinguistic as well as pedagogical significance. The researcher will first discuss the socio-psycholinguistic importance of EA then will turn to the practical or pedagogical uses of EA. It will also be seen that EA is useful for students.
2.3.3.1 Socio-psycholinguistic Significance

It is the wish of every applied linguist to understand what is really going on when people learn languages. However, it has long been believed that experiments provide either confirmation or disproof of theories. The study of L2 learners’ errors is such an experiment to confirm or disprove the psycholinguistic and socio-linguistic theories that have to do with L2 learning. For example, according to the theory of transfer, the psycholinguist hypothesizes that the nature of NL will facilitate or make difficult the learning of certain aspects of TL. Here comes the role of the error analyst to verify the transfer theory (Corder 1973:266). The study of L2 learners’ errors also provide psycholinguistic evidence in favour of or against some universal processes or strategies of L2 learning. Tarone (1980), for example, hypothesizes that L2 learners tend to prefer the open syllable (CV); she therefore considers such preference universal strategy of L2 learning. Once again it is EA which can provide a feedback for or against this hypothesis. The study of errors can also give some evidence as to whether various psychological and social factors (intelligence, age, sex, etc.) affect the development of the learners’ language or not.

As is clear then EA can serve three types of researchers, namely the psychologist, the socialist, and the (applied) linguist. The first two can on the basis of error analyses modify, if needed, the inadequate parts of their hypotheses. On the other hand, every EA will give the linguist new evidence (Michaelides 1990) of how language is learned and acquired on the basis of which he can conduct further research to formulate a sounder theory of L2 learning and consequently a universal linguistic theory.
2.3.3.2 Pedagogical Significance

EA is practically or pedagogically useful in many ways. As Corder (1973:265) remarks, the most obvious practical use of EA is "to the teacher. Errors provide feedback, they tell the teacher something about the effectiveness of his teaching materials and his techniques, and show him what parts of the syllabus he has been following have been inadequately learned or taught and need further attention." Ho-Peng (1976:23) also emphasizes the importance of EA to the language teacher who needs to know the types of errors his students are likely to make and the techniques to correct them. Besides, Michaelides (1990:30) contends that EA "can offer the teacher a clear and reliable picture of his students' knowledge of the language in the light of which he can plan and arrange what remains to be taught until the final goal is reached."

Thereby, Sridhar (1976) mentions some of the ways in which EA benefits the language teacher. He argues that EA helps the teacher determine the sequence of the items of L2 to be taught. An adequate EA also enables the teacher to distribute his emphasis on the items properly; he may then concentrate on some part of the syllabus enhancing it with more drills and exercises. For Lott (1983), the value of EA consists in offering the teacher techniques to analyze his students' errors through which he can build up a picture of the causes and frequencies of types of errors based on which he can plan his classes. For Etherton (1987:67-68) EA can show common weaknesses with which pupils need help, constructions which prove to be difficult at a particular stage, absence of particular items, items which are vital for communication, items not in the syllabus but necessary at this stage, inadequacies in an official syllabus, and errors which may be entirely new to the teacher or of which he may be only dimly aware.
On the other hand, for Jain (1974) EA can help plan and formulate new courses of teaching second languages, whereas EA, for Richards (1974), is necessary to examine the teaching materials. Thereby, Etherton (1987:69) obviously remarks that EA can serve as a feedback for "the preparation of teaching materials, textbooks, and examinations. It is difficult to see how some of these can be efficiently prepared without access to an extensive error analysis." Svartvik (1973:13) adds that EA can improve the language teaching situation by "setting up a hierarchy of difficulties." Likewise, Bhalla (1980) emphasizes the importance of EA in planning learner-generated syllabi. In addition, Etherton (1987) talks about another significance of EA; EA indicates some areas in which further research is needed and provides helpful material for those students who wish to pursue a higher degree or carry out another research.

2.3.3.3 Significance for Students

The analysis of students' errors can be of great value not only to teachers and researchers but also to students. By pointing out his errors to him, the student will manage to correct them. Michaelides (1990:30) adds "in the process of correction he (the student) will be trained to use his powers of reasoning and with his teacher's guidance he will be able to reformulate new hypotheses and adopt new learning strategies." Corder (1967) and Jain (1974) are also of this opinion. They maintain that the errors are also of interest to the learner who can testify and verify his hypotheses about L2 especially after knowing the correct form.

2.3.4 Attitudes Towards Errors

The attitudes towards errors have long been subjective and hence different. With more emphasis on habit formation, a behaviourist psychology views errors as bad habits which must be eradicated through drill and practice
Frith 1975). For example, Strevens (1969) considers errors undesirable and avoidable shortcomings in the learner’s performance. Michaelides (1990) reports that teachers in earlier times considered errors a “crime” and punished their students for making errors.

More realistically a cognitive psychology emphasizes ‘creativity’ in learning languages; hence errors are seen as evidence of the learner's strategies of learning L2. Consequently a more positive attitude towards errors has developed. Under this view errors are considered normal and inevitable indicating the different learning strategies employed by the learner (Corder 1967; Jain 1974; Richards 1974). As viewed by Chau (1975), errors are indispensable devices the learner needs to test his hypotheses about the language he is learning. Likewise, Michaelides (1990) positively views error-making as a natural phenomenon, hence there is no point in making an unnecessary great fuss about it. Furthermore, Michaelides (1990) points out that some researchers have even gone so far as "to consider students’ errors a creative aspect in the learning process" (p.29).

There has also been a change in the attitude towards error explanation. During the heyday of CA, errors were basically attributed to interlingual factors. More optimistically, however, during the 1970’s researchers viewed the majority of errors as belonging to intralingual and developmental factors (Richards 1974).

As far as tolerance of errors is concerned, there are two different views. The first view holds that making of errors should be tolerated if they don’t impair communication or affect the understanding of the utterance, provided the aim of learning the L2 is communicative. On the other extreme however, one finds those who do not tolerate the making of any error, provided the aim of learning the L2 is accuracy (Ajay 1995).
2.4 The Learner's Language

All what an L2 learner produces in TL either correct or incorrect utterances are usually referred to as the learner's language (Corder 1973). However, different terms have been synonymously used to refer to the learner’s language (Agnihotri 1988). For example, Corder (1967; 1971) calls it 'idiosyncratic dialect' and 'transitional competence', Nemser (1971) calls it 'approximative systems', and Selinker (1972) names it 'interlanguage'. In what follows I will briefly discuss these terms.

2.4.1 Idiosyncratic Dialect & Transitional Competence

Corder (1973) defines an 'idiosyncratic dialect' as a peculiar personal code of the learner. The idiosyncracy of the learner's language emphasizes the fact that the code used by the learner is not necessarily a code of any social group. Here it is probable to find a group of learners sharing the learner his code, provided the whole group of learners is homogeneous. However, according to Corder, it would be wrong to speak of the common core of homogeneous idiosyncratic dialects as a 'language' in the Saussurean sense. Anyhow, one should not be misled by the negative term 'idiosyncratic'; what is idiosyncratic is only the learner's code and not necessarily his language.

There are two salient features of Corder's 'learner's language'. The first characteristic stresses the systematicity of the learner's language. It is therefore believed that an error analysis based on adequate data will provide evidence of the systems of the learner's language. However, these systems, according to Corder, are not systems of TL, but better seen as systems of some 'other' language. The second feature of the learner's language as implied by the term 'transitional competence is instability. Thus the learner's language is said to be inconsistent varying from one learner to another and from one period to another.
(Frith 1975). As Michaelides (1990) puts it, the transitional competence of L2 learners denotes the unstable and dynamic nature of their idiosyncratic dialects. However, transition in the learner’s competence (his knowledge of the TL formation rules) does not occur suddenly; it has to pass through intermediate stages, each of them having its own system. The most noticeable stage is the one at which the learner sometimes gets a thing right and sometimes wrong; hence his competence is said to be developing and heading towards the final stage at which his language is said to approximate TL.

2.4.2 Approximative Systems

Experimentally testing the predications of the CA assumptions with reference to the phonology of Hungarian English, Nemser (1971a) concludes that CA predictions can sometimes lead to correct results and sometimes to incorrect results. His experiment shows asymmetry between perceiving and producing the English interdentals /θ/ and /ð/ by Hungarian subjects. For example, English /θ/ is perceived as labial fricative [f], whereas it is produced differently as a group of blends or phonetic outputs like [t], [tθ], [sθ], [t'], and [ts] which Nemser represents by the capital symbol /T/. As a result he observes that the Hungarian subjects while attempting to approximate English /θ/ often produce intermediate phones which may be described as frequent and systematic. However, such intermediate phones are not directly attributable to either NL or TL. The frequency and systematicity of intermediate phones provide evidence for Nemser to argue for the existence of what he calls ‘approximative systems’.

Nemser (1971b:116) defines an approximative system as “the deviant linguistic system actually employed by the learner attempting to utilise the target language.” As apparent, Nemser, unlike Corder and Selinker, emphasizes the point that the learner’s language is ‘deviant’. More important, however, is Nemser’s assumption that the learner’s language at a given time is the organized product of a linguistic system which is internally structured and
distinct from NL and TL systems. Thereupon, Nemser argues for partial or structural independence of 'approximative systems' from NL and TL systems. Nemser obviously concurs with Corder's hypothesis of partial autonomy of the learner's language. It will be seen that Selinker is also of this opinion.

However, there is no clear evidence in Nemser's studies showing positive transition in the Corderian sense, i.e. from wrong to right. Instead, he talks about mere and timeless variations, i.e. transitions which do not necessarily show improvement as the learner moves from one time to another. In other words, Nemser, unlike Corder, emphasizes the stability rather than instability of intermediate systems, a point leading us to another concept called Fossilization of the learner's language and discussed in section (2.4.4).

2.4.3 Interlanguage

Selinker's (1966) study, 'A Psycholinguistic Study of Language Transfer', on the word-order of Israeli Hebrew, concentrates on the concept 'transfer'. He raises questions of what language transfer consists of and what things get transferred. Selinker (1969:284) defines syntactic transfer as "a process which occurs whenever a statistically significant arrangement in the NL sentences reappears in IL behaviour." His studies show that his subjects transfer predominant arrangements from NL to IL then TL. However, in the constructions that do not apparently have predominant word-order, it is a choice of arrangements that gets transferred which Selinker calls neutral transfer. Either cases lead Selinker to conclude that what actually gets transferred is an abstract syntactic category, i.e. arrangements for particular combinations. Accordingly, Selinker argues that his notion of abstract syntactic categories (arrangements and combinations) is parallel to Nemser's concept of abstract capital letters which are said to represent the phonetic blends. This is perhaps what pays Selinker to propose the interlanguage hypothesis known as IL or ILH.
Interlanguage (IL) is a term used by Selinker to refer to the learner's language which is, in this sense, parallel to Corder's idiosyncratic dialect and transitional competence and Nemser's approximative systems. However IL seems to have wider acceptance and usage in the current second language studies than Corder's and Nemser's terms perhaps because Selinker's term is more comprehensive, neutral, and general.

Selinker (1972) defines IL as a separate linguistic system developed by an L2 learner through a latent psychological structure in his brain which can be activated when he attempts to learn a second language; the utterances, however, which will be produced will not be identical with those produced by the native speakers of TL, nor will they be exact translations from NL. It is obvious then that Selinker hypothesizes that there exist only three separate linguistic systems, i.e. NL, IL, and TL systems.

As outlined before, Selinker, like Corder and Nemser, clearly argues for a partial autonomy of the systems of the learner's language. He finds some evidence for his hypothesis in the fossilizable linguistic features. It would be nicer however to recall that Selinker's notion of fossilization gives some support to Nemser's notion of system stability, i.e. the existence of permanent intermediate systems and subsystems.

It has often been argued (Frith 1975) that ILH is based on a cognitive psychology with more emphasis on the learner. Thereupon, it is assumed that ILH may lead to the discovery of new language learning strategies which in turn lead to better understanding of the entire language learning process. Thereby, as far as L2 learning is concerned, Selinker proposes five central learning strategies or processes, namely language transfer, transfer of training, strategies of second language learning, strategies of second language communication, and overgeneralization of TL linguistic material (Richards 1974).
Though IL has long been widely accepted in the literature of second language research, some researchers have sometimes criticized its shaky theoretical grounds, as often referred to. First, Selinker's 'latent psychological structure' is very hypothetical; it is neither named nor identified. As Agnihotri (1988:3) also remarks, Selinker's concept of latent psychological structure "has no genetic timetable, no direct counterpart to any grammatical concept and tends to overlap with other mental structures." Moreover, this unknown language structure is believed to degenerate with age, thus the possibility of getting it reactivated by adult learners becomes rarer over time, hence Selinker's negative and pessimistic view that only 5% of adults succeed in achieving native-like competence (Frith 1975).

Second, Frith (1975) also maintains that ILH, unlike CAH, has no sound predicative basis; hence it is almost impossible to determine with any degree of precision the sources interacting in determining the L2 learner's IL. Third, Frith (1975) moreover remarks that the vagueness of the key term 'system' as being undefined causes problems to the researchers as to whether some linguistic features in the L2 learner's IL are systematic or not.

2.4.4 Learner's Language Fossilization

When L2 learners continue to make the same set of errors at least in certain areas of TL, their IL is said to have Fossilized. Bhatia (1975) remarks that Fossilized structures are errors that are permanent in a learner's language. Lennon (1991) points out that error fossilization implies that at least some elements of IL may never move or may stop moving in the direction of TL so that these fossilizable elements become permanent features of IL. Cited in Lennon (1991:130), Selinker (1972) maintains that "fossilisable linguistic phenomena are linguistic items, rules, and sub-systems which speakers of a particular native language will tend to keep in their interlanguage no matter what the
As pointed earlier, Nemser's permanent intermediate subsystems and Selinker's stable linguistic systems of IL provide evidence for the Fossilization phenomenon. However, Corder's transitional competence may not work in favour of error fossilization. Anyhow, fossilization is said to affect phonology more than morphology and syntax. However, there seems to be no complete concurrence among researchers as to whether phonological fossilization is inevitable for adult L2 learners or not. For example, Scovel (1969) argues that phonological fossilization is inevitable claiming that no one L2 learner can achieve native-like accent, whereas Hill (1970) and Neufeld (1977) argue that achieving native-like accent is possible. In fact the researcher has evidence in support of the second argument. The researcher has recently met an adult French learner of Telugu who has naturally learned Telugu for nearly three years and according to one Telugu linguist has developed an excellent Telugu accent.

More interesting is the question: why does linguistic fossilization occur? Though the answer remains speculative, Corder (1973:269) guesses that "having found that they (L2 learners) can communicate and understand well enough for all their normal needs, they have no motivation to eliminate these errors." More specifically Tarone (1978:80) sums up the hypothetical causes to which phonological fossilization is attributed. First, Scovel's (1969) physiological hypothesis maintains that the muscles and nerves of the tongue and mouth have been practicing the same set of pronunciation habits for years. And it may be that the nerves and muscles necessary for a new pronunciation have atrophied so far as to prohibit accurate pronunciation of TL. Second, Lenneberg's (1967) physiological hypothesis maintains that ‘Lateralization’ – the completion of cerebral dominance – affects language learning. Here the brain loses its capacity for language learning with age; it is assumed that this loss
affects the pronunciation of TL more than its syntax or vocabulary (Tarone 1978:81).

Third, Krashen's (1977) psychological hypothesis maintains that the close of the critical period – an age range during which it is possible to learn a second language easily – of language learning is related to the onset of Piaget's stage of formal operations. In this stage of cognitive development adolescents begin to consciously construct abstract theories about the world. Thereby they tend to learn L2 rather than acquire it, i.e. to abstract rules of grammar and pronunciation and consciously apply them unlike the activation of unconscious processes that children do in the first language acquisition (Tarone 1978:81). Fourth, a psychological habit-formation hypothesis based on language transfer holds that language transfer has its strongest effect on the pronunciation of L2 rather than on other aspects of language (Tarone 1980:140).

Fifth, a socio-emotional hypothesis attributes the phonological fossilization to the learner's lack of empathy with the native speakers and culture of L2. It is assumed that children have more fluid language ego boundaries, therefore they are much more likely to identify with the TL speakers than are adults who have more rigid language ego boundaries. Besides, adults essentially have no motivation to change their accent when they can communicate perfectly (op.cit.p.140). As seen, there are different views dealing with phonological fossilization causes; therefore, more research in this issue is still badly needed.

2.5 Error Analysis Procedures

The procedures for EA include the selection of a corpus of language, identification of errors in the corpus, classification of the errors identified, explanation of the psycholinguistic causes of the errors, and evaluation or error gravity ranking of the errors (Lennon 1991:181). In what follows the researcher will discuss these stages separately.
2.5.1 Error analysis Data

The first stage of EA refers to data collection or elicitation necessary for the analysis and to the method by which it is collected (Corder 1973). The data may be collected from guided or free written compositions, examination scripts, translations, interviews, etc. Spontaneous production of material is one way of data collection; with this kind of methodology, however, researchers (Schachter 1974) may face the problem of error-avoidance, a strategy followed by L2 learners. On the other hand, controlled production methodology is a more relaxing way of data collection.

According to some researchers, an adequate analysis necessitates a large number of errors collected. For example, Etherton (1987:70) argues that "an impression of the common weaknesses can be obtained from 4000 to 6000 errors, but I would regard 8000 to 12000 as a basic minimum. If this figure can be moved up to 20,000 or more, the research – worker will have adequate data to work on."

2.5.2 Error Identification

Error identification depends mainly on how one defines an error. Among researchers there seems to be no absolute agreement on error definition; no universally applicable definition of L2 error can be formulated either. Moreover, what can be counted as an error will vary according to situation, reference group, mode, style, etc. (Lennon 1991). Furthermore, considerable variation is to be found even among native speakers in error identification (Huges and Lascaratou 1982). There also exists the problem of distinguishing among lapses, mistakes, and errors specially in speech (Corder 1973). Like native speakers, an L2 learner may make repetitions, slips of the tongue, false starts, and self-corrections all of which make difficult, if not impossible, an unambiguous error identification.
Although there is no absolute definition of L2 error, some researchers tentatively propose definitions which may be to some extent workable. Cited in Lennon (1991:32), George (1972) defines an L2 classroom error as "a form unwanted by the teacher or course designer." Chun et al (1982) define as L2 error in spoken English as "the use of a linguistic item in a way which, according to fluent users of the language, indicates faulty or incomplete learning" (Lennon 1991:182). A third definition proposed by Liski and Puntanen (1983) holds that "an error occurs where the speaker fails to follow the pattern or manner of speech of educated people in English speaking countries" (Lennon 1991:182). Corder (1973:260) defines an error as one refers to "those features of the learner's utterances which differ from those of any native speaker." Finally, unlike Corder's general definition, Lennon (1991:182) more cautiously and specifically defines an L2 error as "a linguistic form or combination of forms which, in the same context and under similar conditions of production, would, in all likelihood, not be produced by the speakers' native speakers counterparts."

All the definitions proposed above emphasize the fact that an error is defined with reference to the judgements of the native speakers of TL or teachers. However, as pointed earlier, different native speakers' or even teachers' judgements are highly expected, i.e. every native speaker evaluates errors from his own angle. In such a case some researchers suggest solutions based on norms which function as points of reference in error definition. For example, Johansson (1973:106) suggests a norm-based criterion of L2 error according to which "errors should be identified with reference to descriptions of the foreign language: grammars, dictionaries, handbooks of stylistics."
2.5.3 Error Classification

This stage deals with the linguistic description of the errors which can be made possible by a superficial comparison between the learner's utterances and their reconstructions. Then the erroneous forms (i.e. the differences between the original utterances and the target reconstructions) can be classified into categories (Corder 1973). This sort of classification is based on the different strategies employed by the L2 learner. In this respect, Corder (1973:277) classifies errors into four categories: omission, addition, selection and misordering errors. Likewise, categorization of errors can be done at different linguistic levels, i.e. phonological, morphological, syntactic, lexico-semantics, and orthographic or spelling errors (Agnihotri 1988:4).

Once again there is no absolute classification of errors which can be literally followed; instead error categorizations have been subjectively different depending on the researcher, sample, method, and purpose of analysis. In addition to surface strategy and linguistic level classifications mentioned above, there exist other error typologies which are theoretically essential and will be briefly discussed below.

2.5.3.1 Performance Vs. Competence Errors

Corder (1971) introduces the term 'Performance errors' to refer to unsystematic errors which are called mistakes and the term 'competence errors' to refer to systematic errors reflecting the transitional competence of the L2 learner, hence called errors. Mistakes are the product of chance circumstances (Lennon 1991:181). They are occasional and haphazard and are related to such factors as fatigue, memory limitations and psychological conditions such as strong emotions (Bhatia 1975:65). Performance errors include such mistakes as slips of the tongue or the pen, omissions, some spelling mistakes, unnecessary repetitions and so on (Ngara 1983:35). Here the learner makes such mistakes
because he is in a hurry, is writing or speaking under stress, or is simply careless. Hence these mistakes are not very serious because the learner himself can correct them when his attention is drawn to them (Michaelides 1990:28).

On the other hand, competence errors represent either a transitional stage in the development of a linguistic rule or the final stage of the learner's knowledge (Bhatia 1975:66). They reflect the limit of the learner's competence in using TL and the degree to which the learner has mastered TL (Ngara 1983:35). Hence errors of competence are serious, and their treatment calls for careful analysis to discover their cause (Michaelides 1990:28).

2.5.3.2 Expressive Vs. Receptive Errors

Corder (1973:261-262) speaks of two types of errors. The first called expressive errors deals with errors of expression or productive performance where errors are traceable, hence recordable. Receptive errors on the other hand deal with errors of understanding or comprehension, and they most often have no observable behaviour. If expressive errors are the errors made by the speaker while speaking, receptive errors are said to be made by the hearer while understanding. Thus it is natural for receptive errors to be less detectable because the hearer does not always demonstrate unambiguously whether he has understood fully what has been said. Moreover, much speech does not require overt response from the hearer or recipient; on the contrary, he may respond with smiles, grunts or other paralinguistic behaviours. It is only a small part of the speaker's speech which requires linguistic activity from the hearer. The detection of the hearer's errors is only possible in the situations which demand answers to questions, denials, and agreements.

2.5.3.3 Presystematic, Systematic, Postsystematic Errors

Corder (1973:270-272) classifies errors with reference to the stages of language learning into three types: presystematic, systematic, and
postsystematic errors. In the first stage it is a random guessing way of learning; most of the time the learner gets things wrong, and he only occasionally hits the right form as if by chance. He has not yet realized that there is a system in TL to be learned, nor has he discovered the function of that system. Hence he can neither correct his errors nor say what his problem is.

When the learner however starts discovering the function of TL system, for example the verb markings would attract his attention unlike in the presystematic stage where they appear to him as random characteristics, it is said he is entering the second stage of systematic errors. In this stage the learner tries to discover the TL system by formulating various hypotheses about it and testing them. However he cannot correct his errors but he can explain what he is trying to do and what his problem is.

When the learner discovers the correct function of the TL system, he enters the postsystematic stage of learning. Though he is aware of the system, his application of it is inconsistent, i.e. the learner sometimes fails to apply a certain rule that he has mastered. In other words, he sometimes gets a thing right and sometimes wrong, but he can both correct his postsystematic errors and explain what was wrong or had been overlooked.

2.5.3.4 Global Vs. Local Errors

Burt and Kiparsky (1974:73) identify two types of errors: global and local errors. Global errors violate rules involving the overall structure of a sentence, the relations among constituent clauses, or the relations among major constituents in a simple sentence. On the other hand, local errors cause trouble in a particular constituent, or in a clause of a complex sentence. To put it differently, global errors affect the total structure of an utterance while local errors are confined to lexical or morphological levels (Agnihotri 1988:4). It has also been argued that global mistakes hamper communication in most cases, hence
considered more serious than local mistakes. Global errors typically include word order and connector errors, whereas local errors include errors in nouns, verbs, articles, etc. (Lennon 1991:183).

### 2.5.3.5 Domain Vs. Extent Errors

Lennon (1991) speaks of two new dimensions of error, namely domain and extent. Error domain is defined as "the rank of linguistic unit which must be taken as context in order for the error to become apparent. Such units may extend minimally from the morpheme to the sentence and beyond to include larger units of discourse" (p.191). On the other hand, he defines error extent as "the rank of the linguistic unit, from minimally the morpheme to maximally the sentence, which would have to be deleted, replaced, reordered, or supplied in order to repair production" (op.cit.p.191).

With regard to the hearer's perception, domain reflects the amount of linguistic or non-linguistic context he needs to recognize the error, whereas extent refers to the range of linguistic context which the speaker needs to rearrange in order to repair the error. Lennon also argues that the rank of domain for any given error will be higher than or equal to that of extent but never lower. For example, in the erroneous utterance (*a scissors), the extent is the word (a) whose rank is lower than that of the domain which is here the phrase (a scissors) (op.cit.p.192).

### 2.5.3.6 Individual, Group, Universal Errors

Johansson (1973:48) classifies errors into three types. The first type is called individual errors including the mistakes which are peculiar to individual learners. The second type is called language-specific errors or, to use Corder's (1973) term, group errors which are essentially common to all or the majority of the members of the group. The group should be formed of speakers or learners
of the same mother tongue, hence called homogeneous. Johansson also refers to language-specific errors as interference errors because he thinks that such errors result from a direct contact between NL and TL systems.

The third group of errors called universal errors is not specific either to individuals, or languages; on the contrary, universal errors are argued to be general and common to all groups of learners regardless of their native languages. The proponents of universal errors claim that L2 learners tend to apply some unmarked or universal rules in L2 learning Tarone (1980) and Altenberg and Vago (1983) to name few.

2.5.4 Error Explanation

The linguistic description of errors or error classification shows us the differences between what a learner actually does and what a native speaker will do in the same circumstances. However, such linguistic explanation does not provide a means of why the error occurs or where it comes from. 'Why' and 'where' explanations of errors are part of Psycholinguistics. In what follows, causes and sources of errors will be in short outlined.

2.5.4.1 Causes of Errors

The researcher would like to note that according to his survey of EA literature the causes of errors have been often confused with the sources of errors to the extent that it has become difficult to distinguish between the two; both have almost always been used synonymously to refer to one part of psycholinguistic explanation, namely where the error comes from rather than why it occurs. In this section an attempt is made to distinguish between causes and sources of errors. Causes of errors may be defined as reasons existing beyond the occurrence of errors, whereas sources of errors refer to the linguistic or non-linguistic areas to which errors may be traceable. Accordingly, 'transfer', for
example, is a cause of errors, whereas the mother tongue or any other language is the source of such errors. However this kind of subtle distinction does not exist in the current literature of EA.

Butterworth (1981:628-629) talks about three distinct causes of either L2 learners' or native speakers' errors: plan internal errors, alternative plan errors, and competing plan errors. The first hypothesis (plan internal errors) maintains that the generation of an utterance involves the translation of an intended thought into articulate speech via a hierarchy of linguistically descriptive levels like syntactic structures, intonational patterns, morphemes, phonemes, etc. It is argued that at a given linguistic level there will be a representation of the intended elements; anticipation or transposition of these elements at a particular representation level may lead to errors. Transposition of intended elements may occur at the level where 'words' are represented, or it may occur at the segmental level. The two examples below, from (Fromkin 1971), show how interference from intended elements leads to errors:

1. in the phonology of theory — (word level representation)
   target: in the theory of phonology

2. the nipper is zarrow — (segmental level representation)
   target: the zipper is narrow.

The second hypothesis (alternative plan errors) maintains that an intended thought might not have a unique linguistic expression and thus the translation may lead to two or more alternative and equally appropriate plans for linguistic expression. This shows up in the blending of the alternatives (Butterworth 1980:630). Consider the following example from (Garrett 1975):

At the end of today's [lekɔn].
Here the two words (lecture/lesson) are equally appropriate expressions of one intended thought.

The difference between this hypothesis and the third one (competing plan errors) is that the alternatives according to the third hypothesis represent quite different thoughts rather than one and the same thought. Competing plan errors involve competition between separate messages intended or unintended. It has also been argued that the speaker is well aware of the completiing thought; a view held by Meringer and Mayer (1985); Freud (1924) on the other hand claims that the speaker is unaware of the competing thought. Consider Freud’s example below:

Addressing a lady in the street, a young man said: “if you will permit me, madam, I should like to begleitdigen you.”
According to Freud, here are two distinct thoughts; first the man would like to begleiten (accompany) the lady, but, second, he is afraid his offer will beleidigen (insult) her (Butterworth 1980:631-633).

2.5.4.2 Sources of Errors

In this section the researcher will discuss three major groups of possible sources of errors, namely interlingual errors, intralingual and developmental errors, and extralingual errors.

2.5.4.2.1 Interlingual Errors

Interlingual errors are said to refer to errors which are attributed to the contact between NL and TL; hence they are also called contrastive errors. The main part of interlingual errors is claimed to refer to the errors which can be traceable to the mother tongue (MT) or caused by it.
2.5.4.2.1.1 Mother Tongue Interference

Cited in Lott (1983:257), Dulay and Burt (1976) define interference as "the automatic transfer, due to habit, of the surface structure of the first language onto the surface of the target language." Faerch and Kasper (1987:112) define transfer as "a psycholinguistic procedure by means of which L2 learners activate their L1 knowledge in developing or using their interlanguage." Transfer occurs at different linguistic levels: phonological, syntactic, and lexical levels. However, it has been argued that the major influence NL has on TL acquisition may have to do with phonology more than with other aspects of language (Nickel 1989).

At the level of phonology, Tarone (1978:71-72) identifies three types of transfer. Positive transfer occurs where both NL and TL have the same phonetic sound, hence no errors. In this case MT is said to facilitate L2 learning (Corder 1973). On the other hand, there are two types of negative transfer; the first type is called convergent negative transfer occurring where NL has two contrastive phonemes which are considered one phoneme in TL, hence few errors. The second type is called divergent negative transfer occurring where TL has two distinctive phonemes which are considered one phoneme in NL, hence more errors.

Altenberg and Vago (1983:430-433) identify two types of transfer errors in phonology, namely phonetic and phonological transfer errors. Phonetic transfer refers to the substitution of an NL sound for a TL sound not occurring in NL. Phonological transfer, on the other hand, refers to the transfer of a phonological rule of NL to TL data. Investigating the errors in perception and production of word juncture committed by American speakers learning Egyptian Arabic Broselow (1984:270) reports that the English learners tend to transfer the rules of NL (English) Syllable structure onto the Egyptian syllable structure. However, she
points out that transfer of NL phonological rules to TL is restricted to 'surface' low-level or phonetic rules (op.cit.p.276).

Altenberg and Vago (1983:439) are also of this opinion emphasizing that "phonological transfer is constrained such that only the low level rules of an NL may be transferred to a TL." Altenberg and Vago, for example, report that Hungarian learners of English tend to transfer the Hungarian regressive voicing assimilation rule to English. Unlike vowel harmony, such a rule is said to be low-level applying late in phonological derivations.

Most of error analyses reveal that interference from NL is the greatest single cause of errors accounting for approximately half of the total number of the errors (Chau 1975:133); for example, Dulay and Burt (1974) suggest that less than 5 per cent of the errors can be classified as interference errors. Likewise, Richards (1971) states that only a small portion of French-English errors are transfer errors. No doubt these contradictory results are in part due to "differences in definition" (Lott 1983:258), "alternative explanations" and "methodological problems" in error measurement (Ho 1986:37).

Hypercorrection

There is a small portion of interlingual errors referred to as hypercorrection errors which are mainly caused by the (phonetic) differences between NL and TL structural systems. Paying overattention in an attempt to correctly produce a particular sound and distinguish it from another partially similar sound, the learner may unconsciously get to the point where he interchangeably produces the two sounds as one, hence hypercorrection pronunciation error. For example, Ibrahim (1978:209) reports that Jordanian students sometimes pronounce both English [b] and [p] as [p]. Haggan (1991:49) refers to hypercorrection pronunciation errors as overcompensation errors. She reports that Kuwaiti
students adopt overcompensation strategy by producing English [p] where the correct form is [b].

2.5.4.2.2. Intralingual Errors

Intralingual and developmental errors refer to the errors whose origins are found within the structure of TL (Richards 1974:174). They are attributed only to TL, hence also called noncontrastive errors. Intralingual errors are said to reflect the general characteristics of rule learning, whereas developmental errors illustrate the learner's attempt to build up hypotheses about TL from his limited experience of it. Researchers have so far identified several types of intralingual and developmental errors; thereby, overgeneralization errors are reported to be the major type of such errors.

2.5.4.2.2.1 Overgeneralization

Overgeneralization errors deal with "the creation of ill-formed structures" (Ghadessy 1980:97) or "deviant structures" (Ho-Peng 1976:27) based on the L2 learner's limited experience and knowledge of the other structures in TL (Selinker 1974). Overgeneralization of linguistic materials or rules refers to "the process by which the learner masters one form in the target language and then extends its application to contexts where it is inapplicable" (Ngara 1983:36). For example, African learners of English in South Africa overgeneralize wrong pronunciations; according to Ngara (1983:37) they pronounce words like 'book' and 'foot' as [bu:k] and [fu:t] respectively following a general rule, that words spelt with <oo> in English are pronounced as [u:], e.g. 'food, cool, pool, stool'.

2.5.4.2.2.2 Ignorance of Rule Restrictions

Richards (1974) identifies another minor group of intralingual errors which are caused by ignorance of rule restrictions or failure to learn the conditions
under which rules apply. Ghadessy (1980:97) remarks that such errors are "the result of wrong application of grammatical rules." Thereupon, he argues that errors due to ignorance of rule restrictions are seen as part of overgeneralization errors or a more encompassing term, analogy errors. Similarly analogy errors are "sometimes used to refer to the errors due to rule restrictions" (op.cit.p.98). Ghadessy (1980:98) provides an example of errors due to rule restrictions. He reports that Iranian learners of English, due to the ignorance of restrictions on the distribution of the verb 'make', tend to produce erroneous utterances like: 'I made him to do it'.

2.5.4.2.2.3 Incomplete Application of Rules

A third class of intralingual errors identified by Richards (1974) refers to errors caused by incomplete application of rules. Such errors are best reflected in the use of questions and their given answers by L2 learners (Ghadessy 1980). To put it differently, question patterns are sometimes used to form statements, and statement patterns are often used to form questions (Ho-Peng 1976:28). Ho-Peng provides relevant examples of such errors made by Malaysian learners of English; for instance, the erroneous utterance, 'what work I must do?', is argued to be caused by the incomplete application of question-formation rule.

Reinterpreting Richards (1971), Ho-Peng (1976) observes that L2 learners' primary interest is in communication; thereby it is argued that the learner can achieve efficient communication without the need for mastering more than the elementary rules of question usage (Richards 1971; Ho-Peng 1976; Ghadessy 1980). Accordingly, the motivation to achieve communication may exceed the motivation to form grammatically correct questions. No doubt then, such errors will become fossilizable over-time as reported by many researchers.
2.5.4.2.2.4 False Concepts Hypothesized

Richards (1970) claims to identify a fourth type of intralingual or developmental errors caused by the learner's attempt to develop systems and concepts about TL. As Ghadessy (1980:98) puts it, these errors deal with false hypotheses the L2 learner tries to develop or formulate based on his limited knowledge of TL or faulty comprehension of distinctions in it. For example, errors like 'he is speaks French' and 'it was happened' may be attributed to the fact that 'is' is interpreted as a marker of present tense and 'was' as a marker of past tense respectively (op.cit.p.98). Once again such errors may be treated under another kind of overgeneralization errors discussed earlier; it is in most cases the researchers' wish to adopt different names or terms for the same set of errors and to play differently with them.

2.5.4.2.2.5 Incomplete Learning

Ngara (1983:37) claims to identify a fifth group of intralingual errors believed to be caused by incomplete learning though such errors do not sound (for me) much different from Richard's incomplete application of rules errors. Incomplete learning errors according to Ngara refer to "those errors which occur because the second language speaker has only half-learned a structure, a word, an expression or any other feature of the target language and is therefore liable to produce structures or idioms that are only partially correct" (op.cit.p.38). Moreover, Ngara treats errors of incomplete learning under several categories, namely incomplete learning of grammatical rules, prepositional phrases, idiomatic expressions and lexical items whose functions are not properly understood.

In the erroneous sentence below, Ngara provides an example of an African student's error caused by incomplete learning. Consider the following sentence: "the teacher is considered the source of reference". According to
Ngara, the learner here seems to have half-learned the expression ‘the point of reference’ either by hearing it or reading it in some books; however, he also seems to have not yet realized that the only word applicable in the expression is ‘point’ and words such as ‘source’ are incorrect (op.cit.p.38).

2.5.4.2.2.6 Incorrect Association

The sixth group of intralingual errors or the second group of errors Ngara (1983) identifies deals with errors due to incorrect association. Ngara remarks that errors of incorrect associations “occur where the learner confuses a linguistic form in the target language with another in the same language and consequently produces a deviant form” (p.38). Incorrect associations may be phonological, semantic, or grammatical; that is, the learner may incorrectly associate a feature of TL with the sound, meaning, or grammatical function of another, giving rise to phonological, semantic or grammatical association errors.

Phonological association, for instance, occurs when the learner incorrectly associates the sound of a lexical item with that of another. Consider the following example provided by Ngara (1983:38):

*being a pathetic man Tom felt pity for Mayella. (Sympathetic)

In the erroneous sentence above ‘pathetic’ and ‘sympathetic’ are phonologically associated, and it appears that the learner has not yet mastered the word ‘sympathetic’, hence confusing it with ‘pathetic’.

2.5.4.2.2.7 Pretentious Verbosity

Ngara (1983) also identifies a different class of intralingual errors caused by what he calls pretentious verbosity. Pretentious verbosity is “characterized by high sounding words and long and involved sentences” (p.39). Here the
speaker or writer wishes to show his knowledge of TL and at the same time impress the hearer or reader. He therefore selects high sounding or complex constructions and consequently misuses them and gets caught in impressive but meaningless expressions. Consider Ngara's (1983:40) example of a pretentious verbosity error which is written by the novelist Tsodzo (1972):

*you are skandangarious homogeniety of the antidisestablishmentarianism.

Here is another example of pretentious verbosity errors made by an L2 learner and provided by Ngara (1983:45). The meaningless words are in parentheses.

*Obi however when he stood up mde a simple but (pregnant with meaning) speech.

2.5.4.2.3 Extralingual Errors

So far the researcher has outlined interlingual errors transferred from NL onto TL and intralingual errors caused by inherent difficulties in TL structural systems. But are there other factors or sources to which errors can be attributed? The factors discussed before are certainly not the only ones which can contribute to L2 errors. Indeed there exist other factors that have nothing to do with the nature of either NL or TL (Chau 1975). The researcher wishes to refer to this class of errors as 'extralingual' errors. I owe this term to Chau (1975:136) who had been the first to use it but to refer only to pedagogical factors. In what follows extralingual errors are discussed under three major categories.

2.5.4.2.3.1 Language Teaching Methodology

The first class of extralingual errors is believed to be caused by different approaches adopted in L2 teaching (Corder 1973). Corder is also of the opinion that errors due to language teaching methodology appear more in foreign language learning than in second language learning situations. Chau (1975:136)
believes that such errors are attributed to the “lack of emphasis in classroom.” Some items may not be stressed by the teacher, some may be differently treated, and some may be wrongly taught. Ngara (1983:40) refers to these errors as ones caused by “poor teaching.”

Chau (1975) on the other hand argues that the type of learner may affect the process of L2 learning and hence the errors committed. In other words the teaching method may be perfect and appropriate but as Michaelides (1990:29) reports some errors may be attributed to the learner’s “inattention, emotional states, indifference.” Likewise, Ngara (1983:40) argues that some errors are attributable to “plain ignorance.” He contends that because the learner does not know what linguistic form to use in a particular context, he may randomly choose his linguistic materials (op.cit.p.40).

2.5.4.2.3.2 Universal Processes

In a previous section (see 2.5.3.6) on error classification, the researcher has reported that one of Johansson’s (1973) categorizations of errors deals with universal errors which are believed to be general and common to all groups of learners regardless of their respective native languages. Thereby, errors in that category are argued to be attributable to universal language learning processes. In what follows some of these so-called universal processes of L2 learning will be outlined with reference to phonology.

Cited in Tarone (1980:142), Oller (1974) hypothesizes that epenthesis is a characteristic strategy of L2 learners’ speech, i.e. L2 learners tend to very frequently use vowel insertion. However, Broselow (1984) in her study of Egyptian learners of English argues that epenthesis as a language learning strategy employed by L2 learners to simplify the consonant clusters is better attributed to language (NL) transfer. Testing Broselow’s epenthesis hypothesis by using Farsi learners of English, Karimi’s (1987) study disconfirms Broselow’s
hypothesis. He reports that "the strategy employed by Farsi speakers... cannot be traced to their native language" (p.314). He argues that only the consonant deletion rule can be accounted for by NL, whereas epenthesis rules are not NL influences. Karimi's report seems to apparently give some support to Oller's epenthesis hypothesis. However, the results of Sato's (1983) study of two Vietnamese learners of English show "disconformation of the hypothesized primacy of vowel epenthesis as a syllable modification process in all interlanguages" (p.259).

Oller's (1974) epenthesis hypothesis, nevertheless, leads Tarone (1980) to formulate another hypothesis she claims to be universal. Tarone argues that there is a universal process which may influence the shape of IL phonology. This process can be manifested in the L2 learners' tendency and preference for the open (cv) syllable (p.142). Tarone rests her hypothesis on Oller's epenthesis hypothesis and on her analysis of syllable structure errors made by Korean, Cantonese, and Portuguese learners of English. Cantonese and Portuguese are said to be open-syllable languages with simple syllable structure. Korean on the other hand has a relatively more complex syllable structure. Thereupon, Tarone assumes that the differences between the syllable structures of the languages, in question, will determine whether the tendency to epenthesize is due to language transfer or is a movement towards a universal process. That is, the epenthesis errors of Cantonese and Portuguese learners, as the two languages have open-syllable structures, are probably attributed to language transfer; the Korean learners' epenthesis errors however may be due to some processes other than language transfer, i.e. a preference for the open syllable. Thereby, Tarone finds that 47% of one Korean speaker's syllable structure errors cannot be "accounted for solely in terms of language transfer; this learner has the largest percentage of such 'non-transfer' errors" (op.cit,p.146). And of course, this may be the only evidence Tarone relies on.
Perhaps Hodne's (1985) study gives some support to Tarone's hypothesis. Hodne analyzes the syllable structure errors made by Polish learners of English; Polish is said to feature many of the same complex syllable structures that English does. She reports that "the results obtained here are less categorical than those obtained by Tarone. Although a number of modifications were found which could not readily be attributed to transfer, only half of these could be said to show clear modification towards an open syllable pattern" (p.405). However, analyzing the syllable structure errors in spontaneous conversations of two Vietnamese learners of English, Sato (1983) finds that in a language, like Vietnamese, where a closed (cvc) syllable is preferable, learners tend to use closed syllables. Accordingly, he concludes that "the hypothesized universal preference for the (cv) syllable is said to be disconfirmed" (p.259).

On the other hand, Altenberg and Vago (1983:433) claim to identify some errors which are argued to be attributed to common or natural phonological processes. They refer to these processes as unmarked rules and identify three of them, namely word-final devoicing, affirication and stressed-vowel lengthening. I will now turn to the last universal process known as MDH and discuss it in some detail.

Revising CAH, Eckman (1977) proposes the 'Markedness Differential Hypothesis' (MDH) which rests on typological markedness and implicational relations. The hypothesis is claimed to be universal and "independent of any given language" (p.60). According to MDH, the notion of 'degree of difficulty' corresponds to the notion of 'typologically marked'. MDH reads as follows:

"The areas of difficulty that a language learner will have can be predicted on the basis of a systematic comparison of the grammars of the NL, TL and the markedness relations stated in universal grammar, such that,
a) Those areas of the TL which are more marked than the NL will be difficult.
b) The relative degree of difficulty of the areas of the TL which are more marked than the NL will correspond to the relative degree of markedness.
c) Those areas of the TL which are different from the NL but are not more marked than the NL will not be difficult (p.61).

Eckman defines markedness as follows: "A phenomenon A in some language is more marked than B if the presence of A in a language implies the presence of B; but the presence of B does not imply the presence of A" (op.cit.p.60). For example, Eckman claims that "the presence of voiced obstruent phonemes in a language implies the presence of voiceless obstruent phonemes but not the reverse" (op.cit.p.60). Consequently, following the definition of markedness above, voiced obstruent phonemes are more marked and therefore, according to MDH, more difficult than voiceless obstruent phonemes.

Eckman's universal MDH predicts that L2 learners will have difficulty with those areas that are more marked in TL than in their NL and consequently will make errors in those areas. However, Altenberg and Vago (1983), studying the IL phonology of Hungarian speakers of English, find that their results are "not wholly consistent with the claims of the MDH... In general the MDH is not able to predict difficulties in those areas where a subordinate markedness relationship cannot be established between the NL and the TL" (p.441). Altenberg and Vago add that MDH can be falsified as no difficulty is found where TL is more marked. For example, words with harmonic vowels are less marked than words with disharmonic vowels; therefore it would be argued that Hungarian speakers of English will have difficulty with English disharmonic-vowel words, but "the fact that our subjects had no difficulty whatsoever with the English disharmonic words is in contradiction to the MDH" (op.cit.p.441).
Unlike Altenberg and Vago, Anderson (1983) presents some evidence in favour of MDH. She collects her data from Egyptian Arab and Mandarin Chinese learners of English in order to test the predictions of MDH with regard to the relative difficulty of syllabification with reference to length and position. That is, MDH claims that longer clusters are more marked than shorter ones, hence more difficult; likewise, final clusters are more marked than initial clusters, hence more difficult. Anderson concludes that “MDH is a fairly good predictor of the syllabification performance of her subjects” (p.290). She finds that “the marked longer clusters” and “the marked final clusters” are more difficult than their counterparts (op.cit.p.290). In this connection Sato (1983), with regard to cluster position, comes to the same conclusion that “greater difficulty is in the production of final than initial clusters” (p.260). More evidence in support of MDH comes from Broselow (1984) who concludes that markedness as universal principle can account for L2 learners’ errors. She also claims that L2 learners tend to prefer ‘less marked’ or more natural syllable structures (p.276). In light of the results of the present study, the predictions of MDH will be tested; so more about MDH will appear later in the last chapter.

2.5.4.2.3.3 Ex-Language Errors

While reviewing EA literature, one can surprisingly find that most of the studies deal with bilingual learners perhaps following the claim that errors may have their origins either in NL or TL. But what happens in a situation where the learner knows or is learning more than one foreign language? One can simply predict that some errors may be traceable to those foreign languages other than TL.

However, in the present state of research, any answer to the question above unless empirically investigated will remain a merely speculative guess and will certainly lack the precise measurement which determines the proportion of these errors which can be attributable to some other language other than NL and TL; the researcher wishes to refer to the ‘some other language’ as Ex-language.
Moreover, an error analyst unaware of the learner’s linguistic background may treat ex-language errors as idiosyncratic and perhaps at final stages of the analysis may briefly point to some ex-language errors if he is able to discover their original source; otherwise many of the ex-language errors are misinterpreted or simply considered miscellaneous.

Furthermore, if we have to fully understand the L2 learning process, we should study bilingual and multilingual learners as well. Indeed there exist very few studies on multilingual learners, and to the best of my knowledge I am aware of only two of them. Few researchers however report some ex-language errors though they do not purposely mean to study multilingual learners’ errors.

The first study I am aware of is conducted by Skelton and Pindi (1987) on Zairean multilingual learners of English. Skelton and Pindi’s subjects are “all multilingual, living in a multilingual environment. Each could speak at least three languages excluding English: a mother tongue, a local lingua franca, such as lingala, Creole Kikong, or Kiswahili, and French” (p.122). Analyzing the English interlanguage of the Zairean learners, in question, the two researchers find that “there is a very high tolerance of transfer from French to English but no evidence of transfer that must be attributed to an L1” (op.cit.p.123). For example, the erroneous utterance: “earn his life (earn a living) – is believed to be attributable to transfer from the French expression (gagner sa vie). According to Skelton and Pindi, the tolerance of transfer from French onto English may be due to the fact that Zairean “Learners seem to think of these two languages as somehow more or less the same and therefore transfer freely from one to the other” (op.cit.p.123).

The second evidence of ex-language errors comes from Meziani’s (1984) study of errors made by Moroccan multilingual learners of English. In addition to Moroccan Arabic and English, Meziani’s subjects speak French. He finds that most of the learners’ errors, with regard to prepositions, especially destination
and time prepositions, are no doubt caused by interference from Moroccan Arabic; however, "at times there is clear interference from French as well" (p.305). For example, the erroneous phrase: -* in that moment (at that moment) – may be attributed to transfer from the French phrase (en ce moment) (op.cit.p.305).

Investigating the learners' explanations of their own difficulties, Chau (1975) reports that one of the factors interfering with learning is that L2 learners do compare TL with another foreign language previously learned. He finds some learners explaining their difficulties by remarking that certain structures are "like French or Latin" whereas other structures are "not like French" (p.136). Chau's observation gives some support to Skelton and Pindi's view of why L2 learners transfer from one foreign language to another freely. In other words, as suggested by Meziani, multilingual learners seem to use or transfer to TL some linguistic materials which they usually use in another ex-language.

Moreover, Michaelides (1990), however informally, gives some evidence from Cyprus in favour of ex-language errors. He reports that "a further source of errors is interference from French, particularly in the areas of phonology, orthography, and vocabulary" (p.29). Further evidence is reported by Duškova (1969:25). She identifies in addition to interlingual and intralingual factors another interfering factor, i.e. interference from another foreign language learned earlier. Duškova's subjects, Czech learners of English, who have previously learned German tend to transfer from German onto English words which have identical forms in German and English.

It is appropriate to recall that one of the goals of the present study is to investigate ex-language errors, namely the phonological errors attributable to Indian English.
2.5.4.2A Interlingual Vs. Intralingual Errors

On the relation between interlingual or interference and intralingual and developmental factors, Major (1987:102) assumes that “at the early stages of acquisition interference processes predominate and then decrease overtime, while at the early stages developmental processes are very infrequent, later they increase in frequency and then they decrease overtime.” Major rests his assumption, also called the ‘ontogeny model’, on general principles of language learning which claim that “one relies on previous cognitive experience when learning new information” (op.cit.p.104).

In other words, Major suggests that the advanced learners’ errors exhibit fewer instances of interference than the beginners’ errors do. Beebe's (1984) study seems to confirm this suggestion. She reports that the approximations of the beginners are "mostly NL variants", whereas those of the advanced learners are "mostly TL variants" (p.172). However, Ngara (1983), unlike Major and Beebe, appears to have a different view. He maintains that mother tongue interference "accounts for a very large percentage of errors made by a second language learner, both in the initial stages and at more advanced levels" (p.36).

As far as the proportion of interference errors is concerned, Jordens and Kellerman (1978) suggest that such a proportion is determined by the typological distance between NL and TL. They hold that the smaller the typological distance, the higher the transfer errors become; on the other hand, the larger the typological distance between NL and TL, the lower the incidents of interference errors become. Thereby, Wode (1978:11) seems to support Jordens and Kellerman's proposition. He claims that transfer occurs in the TL elements that are similar to the NL elements while developmental processes occur in nonsimilar elements. However, Opata (1989) differently assumes that "if the typological distance is close and the two languages share common characteristic features or properties, and the learner’s perception and understanding of both is
comprehensive and competent, then the more likely thing is that the incidence of interference would be on the low side rather than on the high side” (p.350). More issues on the relation between interlingual and intralingual factors still exist.

One interesting question is: which aspects of interlanguage are most influenced by interference process? Most of the researchers seem to agree on the argument that the mother tongue influence is stronger on phonology than on morphology or syntax (Dulay and Burt 1974; Scovel 1976; Felix 1980; Nickel 1989) to name few. Taking a different position, Beebe (1984) however argues that “very few pronunciation errors result from direct L1 transfer” (p.167). Equally important is the question: which aspects of IL phonology are most influenced by MT interference?

Investigating the role of NL transfer and developmental processes in the acquisition of English phonology of an Icelandic six-year old child, Hecht and Mulford (1980) report that in some cases, for example affricates and fricatives, the developmental processes predominate, whereas in other cases, for example vowels, transfer process predominates. A further interesting issue deals with the relation between interference and developmental processes with reference to stylistic variations. Major (1987:107) claims that “as style becomes increasingly formal, interference decreases and developmental factors increase and then decrease.”

The last point with which I like to conclude and close this argument is that there indeed exist systematic interactions between interference and developmental factors the thing that, recalling Corder’s transitional state of IL, it will not be easy, as the previous discussion implies, to precisely determine the exact role and proportion that each factor is likely to play and have.
2.5.5 Error Gravity

Studies of error gravity often focus on three main points, namely the criteria for error gravity, hierarchies of the errors, and reactions of evaluators to errors. Various criteria for error gravity or seriousness are proposed; these basically include the frequency of errors (Palmer 1980), the error's effect on communication or comprehensibility (Johansson 1973; Enkvist 1973), and irritation, i.e. the degree to which an error provokes a negative reaction (Johansson 1973). Birdsong and Kassen (1988) add another criterion called "seriousness of error" which is interpreted as "the likelihood that a given error will provoke interruption and correction by a listener in a specified speech situation" (p.3).

Based on these criteria and the judgements of error evaluators possible hierarchies of errors may be established, i.e. some errors are categorized as more serious than others. However, there seems to be no agreement among researchers on an absolute hierarchy of errors. For example, James (1977), Hughes and Lascaratou (1982), McCretton and Rider (1982, 1993), and Sheorey (1986) report different rank orders and hierarchies of particularly syntactic errors. As Gorosch (1973) notices, this may be attributed to the fact that "no two evaluations are absolutely identical. Such idiosyncratic variation is basically derived from the fact that different groups of evaluators look for different things in different areas" (p.151). Error evaluators may be teachers who are either native or nonnative speakers of TL, native speakers of TL who are not involved in language teaching, or according to Birdsong and Kassen (1988:1) the learners who make the errors. It is very likely then to have subjective judgements which as Davies (1983) remarks reflect only the viewpoint of the evaluators. Thereby, Lennon's (1991) study confirms the whole argument; his results show "disagreement in many cases among panel members" (p.185).
As most of the researchers however report, there seems to be general agreement on the fact that nonnative speakers judges are consistently more severe in their judgments of errors than the native speakers judges. James (1977:118), for instance, holds that "non-native judges tend to mark more severely than native speakers do." Based on their findings, Hughes and Lascaratou (1982), Davies (1983), Sheorey (1986), McCretton and Rider (1993), and Jay (1995) conclude that native speakers of TL mark more leniently than the nonnative speakers do. The native speakers' tendency to greater leniency or tolerance may be attributed, following Nickel (1973), to their better knowledge of TL as such and especially of the wide scope of its norms. To put it differently, the native speakers' lenient ratings may reflect their familiarity with utterances used by other native speakers of the same language (Davies 1983:305). Moreover, the nonnative speakers, unlike the native speakers, may feel that their own marking abilities and knowledge of the TL are being tested; this may make them particularly critical not overlooking an error or underestimating its gravity (Davies 1983); consequently, they tend to mark more severely (McCretton and Rider 1993).

It is appropriate to recall that the present study will attempt to establish a hierarchy of the phonological errors, i.e. the relative seriousness of the errors based on the criterion of error frequency and will investigate the severity-leniency of error evaluators' judgements.

2.6 Previous Studies on Error Analysis

In this section the researcher will briefly review previous studies on EA with reference to only the Arabic and Palestinian Arabic literature.

2.6.1 Arabic Literature

It has been found that most of the studies conducted on EA deal with syntactic errors. Few studies deal with phonological and spelling errors and fewer
with lexical errors. In what follows I will discuss errors with reference to different linguistic levels.

2.6.1.1 Syntactic Errors

Most of the studies done on syntactic errors confirm that Arab learners of English, in general, seem to make serious syntactic errors particularly in verb phrases, relative clauses, prepositions, and articles. For example, Kambal (1980), analyzing the syntactic errors in written compositions of Sudanese students, finds that the major syntactic difficulties fall in the English verb phrase. Likewise, Mukattash (1986) and Mobaidin (1988), investigating the syntactic errors made by Jordanian Arab university learners of English, report errors in tense, aspect, and voice. Generally speaking, the verb phrase errors include the frequent omission of the auxiliary and the copula (Scott and Tucker 1974), omission of the third person singular present tense marker, and misuse of verb tenses and aspects (Meziani 1984).

Arab learners, on the other hand, make errors in English relative clauses. Thereby, Scott and Tucker (1974) report that errors of Lebanese Arab learners of English include repetitions of subjects and objects. Similarly, Sudanese Arab learners of English also make similar errors as reported by Tadros (1979). Likewise, Tushyeh (1983) reports relative clause errors committed by Arab learners of English. He gives examples of repetition or insertion of resumptive (returning) pronouns in subject and object positions; consider, for instance, the erroneous sentences below:

*The boy who he came
*The boy that I saw him (Tushyeh 1983)

Another serious problem facing nearly all Arab learners of English consists in the use of English prepositions. Mehdi (1981), for example, reports that Arab
learners of English use improper prepositions; they may also delete or add prepositions where unnecessary. Meziani (1984) also reports preposition errors made by Moroccan Arab learners of English. Likewise, Shaheen (1984), analyzing preposition errors made by Jordanian Arab learners of English, remarks that these errors mainly include replacements of prepositions for others, (e.g. *this sonnet consists from (of) two parts). Similarly, Rahman (1990) holds that the correct usage of English prepositions is one of the most difficult areas for Iraqi Arab learners of English.

Turning now to the English definite and indefinite articles errors, Kharma (1981), investigating the articles errors made by Kuwaiti Arab university students of English, finds that the easiest article for the learners to capture is 'the'. As reported by Zreg (1983), Libyan Arab learners also make errors in English articles. The greatest problem however seems to consist in the use of 'the' with nouns that do not require the definite article. The errors classified by Shaheen (1984) also include such redundant articles, (e.g. *it is hard to define the happiness). Tushyeh (1995:33) provides more examples of definite articles redundantly used by Arab learners of English.

As far as the causes or sources of syntactic errors committed by Arab learners of English are concerned, nearly all researchers mentioned above agreeably attribute these errors to Arabic interference (Tadros 1979; Kambal 1980; Kharma 1981; Mehdi 1981; Tushyeh 1983; Shaheen 1984; Mobaidin 1988; Rahman 1990).

On the other hand, Scott and Tucker (1974) identify syntactic errors attributable to intralingual factors. Zreg (1983) finds carelessness, unfamiliarity with the rules of English, insufficient practice, and lack of oral communication significant sources of syntactic errors. In addition to Arabic interference, Meziani (1984) identifies an extralingual factor, i.e., interference from French particularly
in prepositions. Mukattash (1986) attributes syntactic errors to interference from both varieties of Arabic, i.e., the modern Standard Arabic and Jordanian Arabic.

2.6.1.2 Phonological Errors

Few studies have been conducted on phonological errors. In 1979 Zughoul investigated the consonant vowel errors found in the speech of Arab learners of English in America. Most of the errors arrived at were of the substitution type. The investigator found that the learners had more problems in English vowel distinctions rather than in the consonants. He also found that the learners had problems in the pronunciation of English consonant clusters.

In 1984 Eltrug conducted a study on the phonological errors committed by Arab learners of English who were selected from seven Arab countries and were students of the University of Kansas. The study was restricted to normal word-stress and sentence stress. The researcher found that Arab learners had difficulty in the pronunciation of some disyllabic and polysyllabic words in English and had the tendency to shift the primary stress to left or right in certain utterances. He also argued that compound words formed the largest frequency of error, hence more problematic to Arab learners. A further claim made by ELtrug was that the learners had the tendency to split polysyllabic words into two or more parts stressing each part with equal emphasis.

In 1986 EL-Halees analyzed the phonological errors made by Jordanian secondary school students of English. He classified the errors into the following types: (1) Stress and intonation errors which were attributed to Arabic interference and were considered the most frequent and persistent (2) phonemic substitution errors (3) allophonic substitution errors (4) omission errors (5) errors resulting from spelling pronunciation (6) metathesis errors (7) shortening of vowels (8) lengthening of vowels and (9) addition of consonants finally. He attributed the errors committed in the pronunciation of English to six factors,
namely: (1) negative transfer from Arabic sound system into English sound system (2) inherent difficulties in English sound system (3) strategies the learners use in learning English (4) socio-emotional factors (5) methodological factors and (6) psychological factors.

In a recent study, Altaha (1995) reported the pronunciation errors made by Saudi Arab university learners of English. The pronunciation problems that were found typical for Saudi Arab learners included the following: (1) replacement of an English phoneme by an Arabic phoneme, e.g. [bərti] 'party' (2) consonant cluster errors or vowel insertion errors, e.g. [stikriːm] 'scream' (3) pronouncing silent letters, e.g. [knou] 'know' and (4) word-stress errors, e.g. [ˈbɪgin] 'be’gin. In addition to Arabic interference, Altaha found inconsistency of English spelling and previous training strategies potential sources of pronunciation errors.

2.6.1.3 Spelling Errors

Few studies have been reported on spelling errors, and I am aware of only two of them. The first study was attempted by Ibrahim (1978) to account for spelling errors made by Arab students of English at the University of Jordan-Jordan. His classification of spelling errors was based on the assumed underlying causes of the errors and included the following: (1) errors caused by the non-phonetic nature of English spelling as illustrated in the spelling of weak vowels, e.g.*biginner, *husbund. (2) errors caused by differences between the sound systems of English and Arabic. Arabic, for instance, has only one bilabial plosive /b/ which is substituted for English /p/, hence the errors, e.g. *picture, *blaying. (3) errors which may be attributed to analogy, e.g. *languidge (cf. knowledge). (4) errors which may be attributed to somewhat inconsistent and arbitrary nature of English word derivation, e.g. high: *hight, day: *dayly. (5) errors which may be described as transitional and due to ignorance of some English spelling rules or overgeneralization of a spelling rule, e.g. *completely, *closeing. (6) errors which are caused by differences between British and American spelling conventions; for example the British form ‘inflexional’ and the American ‘inflectional’ produced
the hybrid "inflextional". It might be appropriate to mention that in a recent article Tushyeh (1995), however without acknowledgement, pointed out all these factors categorized by Ibrahim (1978).

The second study was conducted by Haggan in 1991. Haggan analyzed the spelling errors of Kuwaiti Arab university learners of English. She classified spelling errors into eight categories as follows: (1) consonant doubling errors, i.e. double consonants written as single, e.g. *swiming for swimming. (2) other consonant errors such as single letter replacement but correct pronunciation maintained, e.g. *sentense for sentence. (3) errors involving the schwa (4) errors involving the silent /e/, e.g. *playe for play. (5) other vowel errors, e.g. *incloude for include (6) letter misordering errors, e.g. *qoutations for quotations (7) unanalyzable highly idiosyncratic spellings, e.g. *neoclier for nuclear (8) the last category included errors due to confusions between homophones, e.g. *there for their.

Haggan attributed the misspellings to the following reasons: (1) the learner did not know a spelling rule or a regular spelling pattern in English (2) he was basing his spelling on his own mispronunciation (3) either he overcompensated for a known phonological difference between the NL and TL or overgeneralized a spelling rule (4) he spelt a word as it would be pronounced (5) irregularity in English derivation and (6) carelessness or slips of the pen.

2.6.1.4 Lexical Errors

There have been very few studies on lexical or lexico-semantic errors. One study was reported by Mustafa (1987) in which he analyzed the lexical errors made by adult Arab learners of English and classified them in terms of their gravity. The second study was reported by Radwan (1988) who analysed the grammatical and lexical errors found in the examination scripts written by Syrian Arab students of English. The two researchers attributed lexical errors to
two sources, namely interlingual factors or Arabic interference and intralingual factors. It is appropriate here to add that Meziani (1984) and Mukattash (1986) also reported some lexical errors in their syntactic analyses of errors.

2.6.2 Palestinian Arabic Literature

The researcher has so far reviewed studies conducted on EA with reference to Arabic literature in general. In this section I will consider the PA literature and will briefly review it. Generally speaking few studies have been reported on EA of Palestinian Arab learners of English. To my knowledge, two studies dealt with syntactic errors and one with phonological errors. No studies however seemed to have treated spelling and lexical errors. In what follows an outline of those three studies will be presented.

2.6.2.1 Syntactic Errors

The types of syntactic errors reported in the PA literature were similar to those previously reported in the Arabic literature in general. Similarly, they involved errors of tense, aspect, relative clauses, prepositions and articles. The first study was conducted by Abu-Jarad (1986) on English interlanguage of Palestinian Arab students of the Islamic University of Gaza Strip. The study investigated the errors made in the formation of the English tenses and relative clauses. The analysis of his study showed that the Palestinian learners' switching of tense resulted from using English morphology to express an aspectual system similar to that of PA. The English past tense and present tense were used to mark PA perfective and imperfective aspects respectively. On the other hand he argued that relative clauses are 90% independent of the PA structuring in relative clauses.

The second study was conducted by Hamdallah (1988) to find out the syntactic errors in written English compositions. The study was administered to
Palestinian Arab students learning English at An-Najah National University in West-Bank. The researcher found the relative clauses, prepositions, articles, tenses, aspects, and concord difficult for the learners in question. It was also found that interference from the mother tongue (PA) was the major source of the errors. Besides, other strategies such as overgeneralization and simplification were also reportedly used by the Palestinian learners. Some errors were also attributed to inadequate teaching methods.

2.6.2.2 Phonological Errors

As mentioned before there has been to my knowledge only one study dealing with phonological errors of Palestinian Arab learners of English. The study was conducted by Hamad (1986) to find out the impact of diglossia on Palestinian students learning the segmental phonemes of English. Hamad argued that transfer was central in language learning and claimed that the native language interference came from both Standard Arabic and PA. By the way, EL-Bacarin (1982) and Mukattash (1986) working on syntactic errors of adult Arab learners arrived at the same conclusion. They argued that in a diglossic situation both varieties of the native language (Arabic) are potential sources of transfer.

2.7 Conclusion

CA and EA briefly outlined are the focus of the present chapter. Besides, the Arabic and PA literature of EA are in short reviewed. The basic assumption or hypothesis of CA, as presented, maintains that NL interferes with L2 learning and that the greater the difference between NL and TL systems, the more difficult for the learner learning becomes. Moreover, the strong version of CAH claims that one can predict the problems of L2 learners, based on a description of NL and TL showing the differences between the two languages. However the studies verifying CAH have shown contradictory results; some confirm and others disconfirm the predictions of CAH.
The researchers whose studies disconfirmed CAH have called for a new approach which examines the L2 learner's errors without any preconceived notion as to their cause. This EA approach, favoured by many researchers, is based on the assumption that an analysis of errors can reveal just the problems the learner may actually have. Besides, it is assumed that the relative frequency of certain errors provides evidence of their relative difficulty. However, EA approach is criticized as it does not take into account the analyses of non-errors which are argued to be essential for teaching therapies. Nevertheless, error analyses have long proved to be socio-psycholinguistically and pedagogically significant. They can provide evidence in favour of or against some social and psychological hypotheses and give the linguist new evidence of how language is learned and acquired. They can pictures the student's knowledge of TL in light of which the teacher can plan and rearrange his syllabus. Attitudes towards errors on the other hand have turned positive; unlike earlier, errors have been considered natural and inevitable marking the learning strategies employed by the L2 learner.

The concept of 'Language' has been differently expressed and coined. For example, Corder terms it 'idiosyncratic dialect' and 'transitional competence' to indicate the idiosyncracy or peculiarity, however systematic, and the instability of the learner's language. Nemser on the other hand refers to the learner's language as 'approximative systems' which are linguistically deviant, systematic, fossilizable, and according to him partially independent of NL and TL systems. The fossilization and partial autonomy of the systems of the learner's language are also stressed by Selinker who refers to the learner's language as 'interlanguage'.

As far as the procedures for EA are concerned, the first step deals with the data base without which an experimental EA is impossible. The collection of the data may be either guided and controlled or free and spontaneous. After the
selection of a corpus comes the second step in which errors are identified. Next, the erroneous forms are classified. Categorization of errors may be based on different linguistic levels or various surface strategies employed by the L2 learner. For example, there are errors involving omission, insertion, substitution, etc. Errors may be expressive or receptive, i.e. errors of production or comprehension respectively; they may be global or local, presystematic, systematic or postsystematic, individual, group, or universal, and they may be errors of performance or competence. The fourth procedure deals with the psycholinguistic explanation of the errors, i.e. errors are traced back to their possible sources or causes. For example, an error may be attributed to interlingual factors such as mother tongue interference and hypercorrection, intralingual factors such as overgeneralization, ignorance of rule restriction, incomplete application of rules, and false concepts hypothesized, or extralingual factors such as language teaching methodology, universal processes, and ex­language errors. The last procedure of EA deals with error gravity so as to establish a hierarchy of the errors. The relative seriousness of errors may be determined by several criteria such as the frequency of the errors and the error’s effect on communication.

In the second part of this chapter is a brief review of previous studies on EA with reference to the Arabic and Palestinian Arabic literature. The majority of these studies seemingly deal with syntactic errors with more emphasis on verbs, relative clause, prepositions, and articles errors. Few studies treat phonological and spelling errors, and the fewest studies are reported on lexico-semantic errors. Anyhow, most of these studies confirm that interference from Arabic is the major source of errors typical for Arab learners of English.