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ACQUISITION OF TENSE AND ASPECT IN THE ENGLISH-BASED INTERLANGUAGE OF NON-NATIVE SPEAKERS

By

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ABSTRACT

ACQUISITION OF TENSE AND ASPECT IN THE ENGLISH-BASED INTERLANGUAGE OF NON-NATIVE SPEAKERS

By

Ahmad AlFarraj

This longitudinal study investigates the developmental processes of the acquisition of tense and aspect in the English-based interlanguage of four adult native speakers of Arabic who came to the United States to pursue their education. The study, which lasted over an 18-month period, was conducted within Meisel's functional approach which was minorly modified to allow "form-only" analysis in addition to "function-to-form" analysis.

Participants were audiotaped individually on different occasions at various stages during the learning continuum. Each taping session lasted 60 minutes. This was done in order to observe the developmental processes of the English temporality from an early stage until learners reached an advanced level. In addition, forced elicited data were obtained during each taping session.

Using function-to-form and form-only analysis, results showed that during the early stage, the English inflectional morphology that marks tense and aspect was non-existent in learners' interlanguage. As a result, various linguistic and non-linguistic devices such as adverbials, connectives, serialization, implicit reference, and

interlocutor scaffolding were the means by which the English temporality was inferred. During the intermediate stage, the correct usage of limited inflectional morphology that marks tense and aspect began to appear in the learners' interlanguage, and at the pre-advanced stage, such correct usage had significantly improved. As a result, the usage of devices other than the morphological markers decreased. Interestingly enough, learners' development in regard to correctly using the English tense and aspect seemed to have slowed down during the advanced stages of learning English. General explanations are offered in an attempt to shed light on such phenomena. Finally, the participants' correct usage of the English temporality in the forced elicited task was higher than that in the spontaneous speech.

The results of this study were discussed with respect to the issue of "rate of development" of the acquisition of English temporality. Also, advantages of "function-to-form" analysis were cited.

Dedicated To

my beloved mother Hussah

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CHAPTER I: INTRODUCTION

This longitudinal study investigates the acquisition of tense and aspect in the English-based interlanguage of non-native speakers. Four adult native speakers of Arabic who came to the United States to pursue their education were audiotaped individually on different occasions and at various stages over an 18-month period. Using Meisel's functional approach with minor modifications, their spontaneous speech was analyzed in order to observe the developmental processes of the acquisition of the English temporality. In what follows and as a background for this project, I will provide a brief history of the research that has been conducted in the last 3 decades regarding the acquisition of grammatical morphemes with an emphasis on the frameworks within which such work has been conducted. In addition, I will show how such research has progressed and how it was perceived and criticized.

During the last three decades, a great deal of research has been conducted regarding the acquisition of grammatical morphemes in the interlanguage of L2 learners. These morphemes, according to Von Stuttebeim and Klein (1986), "like flowers in the Spring, were observed to crop up in a certain order, provided that there was enough rain and sun and the soil was sufficiently fertile" (p. 191). Increasing insight, however, has led a great number of second language acquisition researchers to cast off this product-oriented research and replace it with a perspective that is more cognitive (process-oriented research). This new perspective emphasizes the

importance of investigating the process of acquisition and "looks into the communicative aspects of the development and usage of learner languages" (p. 191). This shift is the result of the increasing interest in discovering how interlanguage develops over time. By focusing on what learners are saying (product), there is a danger of losing sight of what they are trying to say (process) (Mclaughlin, 1989).

The shift from the product-oriented to the process-oriented research is a shift from what may be called "form only" to "form to function" analysis of interlanguage data (Sato, 1984). "Form only" analysis seeks to measure increasing target-like production of specific forms such as past time markers. "Form to function" analysis, on the other hand, is concerned with complete analysis of the functional distribution of specific forms in the interlanguage of learners. Sato (1984) also mentioned a third type of analysis which she referred to as "function to form" analysis. In this type of analysis, researchers select a functional domain such as the English temporal system. Then, they observe the evolution of encoding of that particular domain. This researcher, then, is using "product-oriented" research to refer to those studies such as morpheme studies that do not go beyond counting the appearance versus non-appearance of specific grammatical forms of the target language in learners' interlanguage. Process-oriented research is that which uses "function to form" analysis, and investigates the true object of inquiry which is the process of interlanguage development. Differently put, the process-oriented research focuses on form-function mapping and emphasizes the importance of the role of discourse in language acquisition. By using functional analysis, researchers are able to uncover how learners at the beginning

stages express functions in a language in which they have very limited lexical and syntactic devices.

For many second language researchers, the product-oriented research defined by the morpheme studies and error analysis presupposes that language acquisition progresses in a linear fashion. Corder (1983) maintained that this view is inaccurate. He argued that the acquisition of a second language develops from a simple structure to a complex one in a way similar to a bud developing into a flower, and since it is impossible to describe the development of a flower in a linear fashion, it is not possible to describe the process of acquisition in a linear fashion either.

The process-oriented research in L2 was complementary to the product-oriented research, namely, the morpheme studies and error analysis. In fact, it is safe to claim that the product-oriented research had established the foundation for that body of research that used functional analysis as its main tool to investigate learners' interlanguage. Both the product and the process-oriented research were a reaction to the contrastive analysis enterprise, which attempted to explain second language development in strictly linguistic terms. During the 1960s, researchers analyzed the first language of learners and the target language they were attempting to learn. The assumption was that the more similar the structures of the native language to those of the target, the easier it was for learners to acquire the target language and vice versa. Contrastive analysis enterprise stresses the role of L1 in the process of L2 acquisition.

In the late 1960s, the credibility of this behaviorist approach was in doubt, according to Mclaughlin (1989), when L2 researchers discovered that their findings showed SLA to be different from what had been believed to be the case. Contrastive

analysis studies emphasized the role of transfer from the first language which was not what researchers were finding. Evidence showed that interference played only a minor role in SLA. In addition, contrastive analysis overpredicted and underpredicted the difficulties of second-language learners. It underpredicted in the sense that some learners' errors could not be explained on the basis of transfer from L1. And it overpredicted in that it anticipated difficulties that, in fact, did not occur (McLaughlin, 1984). Morpheme studies and error analysis research showed that second language learners from different backgrounds followed similar developmental processes when acquiring a second language (Larsen-Freeman, 1975, to name only one). It will be shown how such general conclusions were challenged.

Morpheme studies and error analyses were based in the late 1960s on a new theoretical orientation in SLA research. The notion was that learners' underlying grammatical systems are continually revised as they move toward the target language. This process involves a very powerful cognitive contribution on behalf of the learners. One of the most prominent researchers to adopt this new theoretical orientation was Selinker, who introduced the term "interlanguage." Selinker (1972) defined the term as the interim grammar that is constructed by learners on their way to acquiring the target language.

Research which investigates the L2 acquisition of grammatical morphemes was based on the work of Brown (1973), who studied the acquisition of 14 functor words by children learning English as a first language. He found that the subjects followed an invariant sequence in the acquisition of these grammatical morphemes. Dulay and

Burt (1973) reported that children learning a second language followed a similar developmental sequence regardless of their language background.

As with the adult second language learner, Larsen-Freeman (1975) indicated that adults acquiring a second language exhibited patterns similar to those obtained in cross-sectional studies of children. She indicated that differences between subjects existed. However, these differences were not marked enough to overshadow the common pattern in the accuracy order.

In sum, studies of the acquisition of grammatical morphemes have shown that adults as well as children from different backgrounds acquire English syntax in a way similar to that of children acquiring their first language. Though differences do exist, it seems that the L2 acquisition process is like the L1 acquisition process.

As the morpheme studies showed the inaccuracy of the contrastive analysis approach, research on error analysis also revealed similar challenges to that enterprise. Dulay and Burt (1972) reported that errors that their subject children made reflected the influence of the target language they were learning more than the influence of their first language. They pointed out that errors of Spanish-speaking children appeared to be developmental in nature and they resembled those errors that monolingual children make when acquiring English. Dulay and Burt (1974) also found that children from different L1 backgrounds made similar errors. Lance (1969) indicated that many errors that adult SL learners made were like those made by children acquiring their first language.

In sum, the findings of error analysis research has shown that L2 errors are, in most cases, developmental, as opposed to interference from L1. This, once again,

led many L2 researchers to propound that SL learning is like first language acquisition in that both involve similar processes (Lance, 1969).

It seems obvious, then, that the conclusions of both the morpheme studies and error analysis assume similar processes of L1 and L2 acquisition. Nevertheless, these conclusions were challenged by researchers working within the same framework. It was claimed that not only were patterns found in L2 learners' data different from those found in first language learners' data, but also that learners' first language was a major factor in the acquisitional process of L2. Moreover, morpheme studies--those that show similar development sequences in L1 and L2 acquisition--seemed to suffer a great deal of methodological drawbacks (Mclaughlin, 1989). For instance, Porter (1977) used the Bilingual Syntax Measure, an instrument used in most morpheme studies, with his monolingual English-speaking children and found that the acquisitional order of the morphemes in the language of his subjects resembled that of SL learners as opposed to the L1 order of acquisition. This indicates that the findings of the morpheme studies could be instrument-specific. Further, Meisel et al. (1981) argued that the testing methods which have been used in morpheme studies may eliminate individual differences. Further, what is investigated is the accuracy of use of grammatical morphemes in obligatory context and not the developmental order of these morphemes. Also, the order of acquisition of the same grammatical morphemes in longitudinal studies was shown to be different from that of cross-sectional studies (Rosansky, 1976). This implies that deviations from regularity will occur any time a different method is employed.

Finally, morpheme studies do not take into consideration the different functions of the same morpheme (Pica, 1983). For instance, a given morpheme might be easy for learner x when conveying function A, but difficult for the same learner when conveying function B. If the corpus of that learner contains the use of that morpheme conveying function A only, then an accurate account of that learner's knowledge of that particular morpheme is not provided.

As the morpheme studies were criticized, error analysis research, too, received similar attack. Andersen (1978) argued that the same mistake a learner makes may be a developmental error found in the speech of monolingual speakers, and at the same time it can be an error reflecting the influence of L1. There is strong evidence that some errors are the results of both factors. Errors of SL learners can also be the result of avoiding certain linguistic structures (Schachter, 1974).

As a result of such criticism to the product-oriented research, some L2 researchers have developed a framework that focuses on the process of acquisition. This line of research was greatly influenced by Schumann's (1975) study in which he contended that there was an analogy between pidginization and early stages of second language acquisition. Schumann, then, extended the pidginization process to explain the early stages in the interlanguage of a native Spanish speaker learning English (1978). Since then, the study of pidginization has provided second language researchers with a new theoretical framework for the study of learners' interlanguage. The approaches associated with this framework are characterized by the fact that they are non-target-oriented in the sense that they treat interlanguage as a unique system which

is different from and similar to both the native and target languages. Specifically, they are concerned with how learners map form-function relationships.

Because of such shift in direction, some SLA researchers (Kelly, 1983; Sato, 1984, to name only two) extended Givon's linguistic model of language change to the study of learners' interlanguage. The model, which originally was created for the study of diachronic change, claimed the discourse-pragmatic origin of syntax in all of the situations of language change. This takes place in the sense that pragmatic-discourse structures seem to develop over time into grammaticalized syntactic structures (Givon, 1979). Also, researchers who investigated the acquisition of temporality in the interlanguage conducted their work within a functional semantic framework (Kumpf, 1984; Meisel, 1986, to name only two).

What is appealing about functional analysis which has been used by the above-mentioned researchers is that it allows multi-level analysis. As opposed to morpheme studies, for example, which judge learners' development by the appearance of certain grammatical morphemes, functional analysis integrates both the appearance of linguistic forms and discourse strategies that learners use to convey specific functions. Anderson (1982) contended that functions are expressed through multiplicity of means. These include, in addition to inflectional morphology, adverbials and discourse pragmatic principles.

It should be clear by now that the product-process distinction applies according to how interlanguage data is manipulated. That line of research that investigates the data at the morpho-syntactic level and dismisses altogether the role of discourse strategies is product-oriented. On the other hand, research that uses multi-level

analysis and assigns a significant role to discourse-pragmatic factors when investigating the conveyance of specific functions in interlanguage is process-oriented.

Because of the fact that the shift to this process-oriented research is fairly recent, only a few researchers have used functional analysis when investigating the acquisition of temporal systems. Unfortunately, no one has used the functional approach as defined by Meisel (1986) to investigate the acquisition of temporality in the English-based interlanguage. Thus, devices that are used by non-native speakers of English to convey temporality, and the developmental progression of temporal systems, are not known.

The purpose of this project was twofold. First, using the functional approach to the study of interlanguage as defined by Meisel (1986) as a base, the spontaneous speech of four Arabic non-native speakers of English who were learning English as a second language was audiotaped on different occasions and at various stages during the learning process within an 18-month period. Their speech was then analyzed in order to uncover the devices--linguistic and non-linguistic--that were used to convey the following eight functions:

1. Regular or habitual occurrence of an event (simple present tense)
2. Single event in the past (simple past tense)
3. Single ongoing occurrence of an event in the present time (simple present progressive)
4. An event in progress simultaneous with another one-time event in the past (simple past progressive)

5. An event in the past that is related to the present state of affairs (present perfect)

6. An event in the past that occurred before another event in the past (past perfect)

7. An action that took place in the past and is still continuing into the present (present perfect progressive)

8. An event in the past that had limited duration, and that occurred before another event in the past (past perfect progressive).

Secondly, the researcher attempted to uncover the developmental progression in the learners' conveyance of these eight functions.

Rationale

Although the acquisition of temporality in the English-based interlanguage of adults has been investigated in the last three decades, little knowledge has been gained concerning the developmental process of the acquisition of such temporal notions in learners' interlanguage. This is due, in large part, to the poor methods that have been employed in SLA research in general. For instance, the product-oriented research which has been used in the studies of the acquisition of grammatical morphemes, some of which are those that mark tense and aspect, is largely responsible for the lack of a true understanding of the developmental process of the acquisition of those morphemes. In this line of research, only the surface phenomenon of learners' production is observed. There is no deep analysis on the part of researchers to infer what learners are attempting to convey, and the process of acquisition is totally ignored.

Fortunately, some second language acquisition researchers have attempted to shift the emphasis from the product to the process-oriented research that looks at how interlanguage develops over time. This line of research investigates the true object of inquiry which is the developmental process of interlanguage. In order to do so, this type of research implements a multi-level analysis and assigns an important role to discourse-pragmatic strategies that learners employ to convey meanings. Nevertheless, little research has been conducted within this framework. In addition, there is, to the best of my knowledge, no study that has investigated the acquisition of tense and aspect in the English-based interlanguage of Arabic non-native speakers of English within a functional semantic framework.

This study was needed to investigate the acquisition of tense and aspect in the interlanguage of Arabic non-native speakers of English. The functional approach as defined by Meisel (1986), who investigated the acquisition of reference to past in the German-based interlanguage, was used to analyze the data in this study. This approach incorporates morphological and pragmatic analyses of the data. It investigated the extent to which learners correctly use the English tense and aspect morphology. Whenever morphological markers were not used, the study looked at what other linguistic and non-linguistic devices were used to convey temporal information.

Importance and Purpose of the Study

This study was intended to address issues that have been largely overlooked in the literature of the acquisition of English temporal systems by non-native speakers. The search for devices other than morphological markers that convey temporality in interlanguage is crucial for the pursuit of full understanding of how language

develops. The importance of this study is derived from the fact that it is the first of its kind in the sense that no one has ever applied Meisel's functional approach to the study of the acquisition of temporality in the English-based interlanguage of Arabic non-native speakers of English.

It was assumed that a reasonable amount of information would be obtained regarding how temporal systems develop over time, and how learners are able to interact when their knowledge of the grammatical system of the target language is very limited. By using this functional approach, it was anticipated that the developmental processes of learners' interlanguage regarding the acquisition of the English tense and aspect would be thoroughly documented. That is to say, that functional analysis would allow this researcher to uncover how non-native speakers express the English temporal notions, especially at the early stages of development where they have a very limited knowledge about the grammatical rules of the target language. This study was concerned with <u>how</u> second language learners convey meaning as opposed to the large amount of research that concerns itself with whether or not learners use the correct grammatical rules of the target language. This study attempted to show the importance of multi-level analysis of interlanguage data, and the need to analyze how learners map form-function relationships throughout the course of learning English. The ultimate importance of this study is derived from the fact that it sought to document the evolution of encoding the English tense and aspect from a very early stage until the learners reach an advanced level. In doing so, the researcher observed all devices that learners used to encode the English temporal systems, whether these devices were linguistic (morphological markers, adverbial phrases, and

so forth) or non-linguistic (discourse strategies). It was hoped that conducting the study in this manner would contribute to the understanding of learners' capacity to acquire and use language.

Questions of the Study

1. To what extent will the subjects of this study use the English tense and aspect morphology correctly?

2. What kind of devices, linguistic and non-linguistic, will be used to convey temporal information?

3. What stages do learners go through in their conveyance of temporal information?

4. To what extent will learners rely on devices other than the morphological markers to convey temporality?

5. Will the reliance on devices other than the morphological markers decrease as the learners' knowledge of the grammatical system of English increases?

Limitations of the Study

This researcher did not investigate all of the possible verb structures in English. It was felt that concentrating on fewer structures would allow more elaborate analysis. The following structures were not tested:

1. the future tense

2, the modals

3. copula as main verb.

With regard to the future tense, it was excluded because of the fact that other than the simple future, its structures are rarely used even by native speakers. The modals were not included because some models do not convey temporal information. For instance, "can" and "could" are both used to refer to the present state. Copula were excluded merely to avoid testing so many structures. The following structures were tested:

1. present tense with main verbs
2. regular and irregular simple past tense
3. simple present progressive
4. simple past progressive
5. present perfect
6. past perfect
7. present perfect progressive
8. past perfect progressive.

CHAPTER II: LITERATURE REVIEW

In this chapter, I will provide a broad literature review about functionalism in linguistics, English tense and aspect systems, an overview of the L1 and L2 studies of the acquisition of tense and aspects, and the study upon which this research is based, Meisel (1986).

Functionalism in Linguistics

In this section, I will present some of the approaches to functionalism which are applicable to SLA studies. One such approach to functionalism is case function. Research within this framework investigates the grammatical functions such as "subject" and their deep case functions such as "agent." The work of Fillmore (1977) illustrates this type of research. Givon (1979) argued that surface grammatical functions are related to discourse function. An example of research in this area is that of Zubin (1979), who studied German. He argued that animates tend to occur as indirect objects or subjects, and inanimates occur as direct objects. This may indicate that case function is linked to inherent semantic properties of nouns.

The works of Poplack (1980) on code-switching and Ferguson (1959) on diglossia, among many others who study the alternation between two languages or two dialects of a language, introduced a second approach to functionalism called "social function." The purpose of such work is to find out how and under what

circumstances a speaker uses a particular dialect and not the other. Also, this line of research is interested in discovering the reasons behind speakers' shift from one language to another or from one dialect to another within the same discourse context. Usually, it is the social domain that determines the usage of one language or dialect over the other.

In addition, there is yet another approach to functionalism that is concerned with form-function relationship. It is not always the case that one form corresponds to one function and one function is represented by one form. In fact, one function can be served by many forms as in the following examples:

The game will begin at 1:00 p.m.

The game begins at 1:00 p.m.

Here two forms, "will begin" and "begin," serve the same function, which is giving out information regarding an upcoming event. The reverse of having two different functions represented by only one form is also true. Slobin (1973), who studied children acquiring their first language, maintained that the new functions are expressed by old forms. At the same time, forms that are already learned express old functions.

In addition, Tomlin (1990) distinguished two types of functionalism, relational and ecological. According to him, relational functionalism investigates the possible mapping relations between linguistic forms and pragmatic functions. By doing so, one identifies what is

> . . . coded by a particular syntactic structure or morpheme (e.g., the function of syntactic subject in English or wa in Japanese), or one can identify how a particular semantic or pragmatic function is coded within a particular language or speech community. . . . (p. 159)

This descriptive-oriented research investigates an individual language or speech community.

On the other hand, ecological functionalism studies languages as opposed to one language, as in relational functionalism. The principles of ecological functionalism do not have to be, as Tomlin put it, "manifested directly in the linguistic behavior of individual languages or speakers" (p. 160). One such principle is that of Givon (1983), who stated that a referent is more likely to be coded by a shorter referential expression during conversation if it is more predictable.

Functionalism is, generally speaking, concerned with the implementation of the speakers' linguistic knowledge in interactive discourse. Tomlin (1990) contended that the acquisition of the language arises from its usage in communicative interaction. As to how the grammar arises from discourse, he maintained that "all aspects of the grammar develop anew for each individual from the communicative environment" (p. 161). The SL learner, for instance, approaches the language learning environment with a very powerful set of learning mechanisms. These mechanisms are, then, employed to "bootstrap a grammar from the genuinely rich data of human discourse interaction" (p. 162).

In addition, functional approaches consider the grammar of an individual to be composed of three interrelated parts. They are the syntactic component, semantic functions, and rules which specify, for a particular language, how pragmatic functions are mapped into syntactic forms (Tomlin, 1990).

Most of the work that has been conducted within the functional approach in regard to the acquisition of tense and aspect in L2 is of two types. On the one hand,

there is the semantic analysis which examines utterances in terms of sentence-level semantics. This kind of work is based on that of Kumpf (1984) (see also Flashner, (1983; Nixon, 1986; and Rothstein, 1985). On the other hand, there is the pragmatic analysis which examines learners' speech in order to uncover how they convey a given function--past time reference, for example--since interlanguage does not show that learners use morphological markers (Dittmar, 1981; Hatch, 1978; Sato 1984). This will be elaborated upon in the "acquisition of tense and aspect in L2" section.

From the above discussion, it is clear that functional analysis is concerned with how language is used in interactive discourse. In SLA, the focus is on the interaction between acquisition and use. The emphasis is not on whether or not the learner supplies correct grammatical morphemes in a given discourse--morpheme studies. Instead, the concern is with how learners convey a given function in interactive discourse and why they do it the way they do. Bahns and Wode (1980) stated that consideration of the acquisition of linguistic forms without consideration of the functions those forms realize, and how form-function relations may change through the course of acquisition, will not enable us to capture critical observations about learners' development.

In sum, some major approaches to functionalism have already been discussed. These include the case function, social function, and plurifunctionality. The work within each approach has contributed to an understanding of language and its use in communication. It has also been shown that there are two types of functionalism. There are those who investigate form-function relations of a single language. On the other hand, there are those who study the languages of the world in search for general

principles that hold true cross-linguistically. Finally, it is obvious that functional analysis in SLA is concerned with how learners use their language in interactive discourse.

Though viewing language acquisition in this manner has already shown its merits, functional approaches, like any other approaches, are not without problems. Dik (1978) argued that functional approaches are more concerned with linguistic performance than with linguistic competence. This may be true, since all functional approaches analyze the speech of learners-performance data. Nonetheless, this researcher would not consider this much of a drawback since the investigation of what learners actually say--performance--contributes to an understanding of the process of acquisition more than investigating what learners know--linguistic knowledge. This writer used "linguistic knowledge" instead of "competence" to avoid the controversy over the definition of the term "competence." "Linguistic knowledge" means, in this context, the learner's ultimate knowledge of the grammatical system of the target language.

Another problem of functionalism is that there is no single functional approach that provides an explicit consideration of the form-function relationship. Tomlin (1990) argued that

> . . . it is not clear what the theoretical possibilities are for coding relationships, nor is it clear what patterns of empirical evidence must be observed in linguistic behavior to embrace or reject any particular coding hypothesis. Without an explicit, principled theory of the kinds of coding relations possible between form and function, there is no principled way to distinguish genuine, systemic coding from spurious correlations. (p. 163)

The mixing of relational and ecological functionalism is also identified by Tomlin as yet another problem in functional analysis. Basically, this occurs when

general principles which are obtained as a result of empirical observations about sets of languages are used to explain the behavior of an individual SL learner. Tomlin (1990) argued that the language learner does not have access to such principles.

Despite these problems and possibly others, functional analysis remains one of the most enriching approaches to the study of interlanguage. That is to say, the mere description of learners' language at a particular point in time--morpheme studies, for example, which would indicate that a given learner used the simple past tense 70% of the time--correctly may reveal something about the interlanguage development. But it does not concern itself with how learners attempt to convey the correct message whenever they fail to use the correct morphology. Further, it does not concern itself with strategies used by different learners to overcome their deficiency of knowing the grammatical rules of the target language.

Thus, what is needed is an approach that treats "interlanguage" as a unique system, and investigates how language is used and how semantic functions are conveyed in interactive discourse. This is, basically, what functional analysis to L2 acquisition intends to do. In other words, all functional approaches presuppose that pragmatic functions are subserved by linguistic forms, and the main duty of researchers working within this framework is to investigate how this relationship is mapped.

Tense and Aspect

Tense and aspect are those categories that characterize the basic prediction which is referred to as the event. Tense specifies the location of an event in time. It can be described in terms of temporal dimension which is directional with interval of time that can be called the tense locus. Tense specifies the location of an event in

time by comparing the position of the frame with respect to the tense locus. There are two important considerations in tense systems:

1. The selection of the tense locus. Normally, no adverbial specification or further context is required in order to use the speech moment as tense locus. However, contextual specification like diectic adverbial phrases, "then" for instance, is required in order to establish some other point as the tense locus.

2. The nature of the relationship between the event frame and the tense locus. The frame can be anterior to the tense locus or it can include the tense locus or it can be posterior to the tense locus. The above three distinctions define past, present, and future tenses respectively.

This direct encoding of the tenses is not common. It is usual to find only a two-way distinction in tense which is either past vs. non-past or future vs. non-future (Chung & Timberlake, 1985). Comrie (1976) further mentioned that tense signals the temporal relation between the time when an event occurs and the time of speaking. If the speaker speaks about an event before it occurs, it is the future tense. If, however, the speaker speaks about an event after it happens, he or she is indicating past tense.

Every English sentence must be marked for tense given that it is not an imperative one. The main verb will be marked for tense unless a tense-bearing auxiliary verb is present. Auxiliary verbs include the modals (may, can, must, and so on), perfective aspect (have + past participle), the progressive aspect (be + present participle), and the passive form (be + past participle). The auxiliary in English can be stated in the following phrase structure rule:

Auxiliary tense (model) (perfect) (progressive) (passive) + MV

Finally, tense distinctions in some languages characterize not only the relationship between the event frame and the tense locus, but also are metrical. Tense distinctions in these languages provide an approximate measure of the interval between the frame and the tense locus. For instance, the Wishram-Wasco dialect in Chinook distinguishes four past tenses: remote, far, recent, and immediate (Chung & Timberlake, 1985).

Aspect of the verb indicates whether or not the event named by the verb is perfective (completed) or imperfective (incompleted or continuing). This implies that the aspect of the verb has to do with the contour of the event (Comrie, 1976). Chung and Timberlake (1985) mentioned that aspect "characterizes the relationship of a predicate to the time interval over which it occurs" (p. 213). According to the researchers, the above definition includes two types of relationships. The first is change, which is central to aspect. Predicates describe situations and state among others which can either remain constant or change over time. The second is the different relationships of the predicate to the event frame. In order for the predicate to qualify as an event, it must minimally occur over the event frame, and there are many ways to satisfy this requirement. The predicate can occur wholly within the event frame or over a large interval of time that includes the frame. The former is the perfective (completed) aspect and the latter is the imperfective (incompleted) aspect.

In addition, the pragmatic function of the perfective or completed aspect is to show that a certain activity has an inherent limit which is reached by the event of the event frame. On the other hand, the semantic function of imperfective aspect is to

indicate that an activity is in process and accordingly is incomplete. For an event to be encoded perfective, it must be included in the frame. And in order for it to be encoded imperfective, an event must be not only dynamic but also included in the frame. A dynamic event is that which can change over time and not remain constant (Celce-Murcia & Larsen-Freeman, 1983).

Temporality in English

Temporality in English is expressed in many ways. One way is verbal morphology; the use of morphological markers to mark tense and aspect is obligatory in English. For each one of the eight structures tested in this study, its syntactic form, the function it conveys, and its lexical forms (morphology) that must be used to convey the function are mentioned (see Table 1).

Table 1. The eight English grammatical structures tested.

Designation	Syntactic Forms	Function	Form
A	Simple Present Tense	regular or habitual occurrence of an event	unmarked form of the verb
B	Simple Past Tense	single event in the past	the second of the principal parts of a verb
C	Simple Present Progressive	single, on-going occurrence of an event in the present time	present-tense forms of "be" + present participle of the verb
D	Simple Past Progressive	an event in progress simultaneously with another one-time event in the past	past-tense forms of "be" + present participle of the verb
E	Present Perfect	event in the past that is related to the present state of affairs	present-tense forms of "have" + past participle of the verb

Table 1. (cont'd).

Designation	Syntactic Forms	Function	Form
F	Past Perfect	event in the past that occurred before another event in the past	had + past participle of the verb
G	Present Perfect Progressive	action that took place in the past and is still continuing into the present	present-tense forms of "have" + been + present participle of the verb
H	Past Perfect Progressive	event in the past that had a limited duration and which occurred before another event in the past	had + been + present participle of the verb

A second way is the use of adverbs and adverbial phrases such as "today," "yesterday," "last year," "last March," and "when I was in x place." A third way is principles of discourse organization. The use of such principles is a common phenomenon in almost all languages of the world. These include, among others, implicit reference, scaffolded discourse, and order of mention follow the natural order in which events occurred. It is shown in Table 2 how the morphological markers that mark tense and aspect in the eight structures of this study are used in actual English sentences.

Acquisition of Tense and Aspect in L1

As to how children develop the use of temporal information, Weist (1986), who reviewed the literature on the acquisition of temporal systems in child language, suggested a developmental progression of four temporal systems which involve the integration and sequential emergence of three concepts: speech time, event time, and

Table 2. Morphological markers that mark the English tense and aspect systems.

	TENSE	
	Past	Present
Perfective	He wrote an article. He had written 3 articles before he came to the U.S. He has written an article.	
Imperfective	He was writing his article when I visited him. He had been writing an article for three weeks. He has been writing his article. He writes one article every year.	I am writing my article.

reference time. As outlined by Weist et al. (1991), the following discussion describes the developmental progression of the four temporal systems. Before doing so, a definition of the three concepts is provided. The speech time concept refers to the time of the speech act, the event time concept refers to the time that is established for a specific situation, and relative to speech time. Finally, the reference time concept is the temporal context that is identified (Comrie, 1985).

The first temporal system is called the speech time system. During this phase, the child's language is limited to speech time coding. The coding of tense and aspect is non-existent (Brown, 1973).

The second system is the event time system, wherein children between the ages of 1.6 and 2.0 express a relationship between speech time and event time. It is propounded that during this period, children express past vs. non-past. They express the basic aspectual distinction between the perfective and the imperfective (Weist et al., 1984).

The third system is called the restricted reference time system. From the age of 2.6 to 3.0, children begin to use temporal adverbs to establish the location of reference time (Clark, 1985). In some languages, the present perfect is used to relate event time to reference time (Gathercole, 1986). This phase was labeled "restricted" because the complexity of temporal configuration is limited at this point to only the relationship between two intervals in time.

The free reference time is the last phase that is identified. Children vary as to when they reach this stage. It is estimated that this stage is reached by the age of 4 (Trosborg, 1982). This stage is characterized by the ability of children to construct configurations having speech time, event time, and reference time, at different temporal locations.

Additionally, there are two different hypotheses in regard to how children develop their temporal systems. On the one hand, there are those who argue that early systems are characterized by the lack of flexibility with regard to reference time and embedding possibilities (Weist et al., 1984). On the other hand, there are those who argue that the systems lack the concept of temporal location, and that the first distinctions children make are aspectual ones. Even if children use tense morphology earlier in their development, it is used to code aspectual distinctions (Antinucci & Miller, 1976).

However, Weist et al. (1984) argued against the second hypothesis and pointed out that their subject Polish children used tense morphology to code temporal relations. At the same time, they used aspect morphology to distinguish perfective from imperfective viewpoints. Bloom and Harner (1989), who reanalyzed Weist's Polish

data, disagreed. They contended that reanalysis of that data showed that the acquisition of verb inflections in the language of those Polish children obeys basic principles of development. The acquisition of verb morphology moves in the direction of increasing complexity. They argued that acquisition of tense distinctions was influenced by the earlier acquisition of verbs with different aspectual contours. In other words, Polish children as well as Turkish and Hebrew and others are influenced by aspect in their acquisition of verb tense.

The hypothesis of "aspect before tense" originated in Jakobson's (1957) work. It was the result of the observations that when both tense and aspect are marked in a language, the aspect marker appears closer to the stem of the verb and before the tense marker.

Confirmation of this hypothesis was offered by Antinucci and Miller (1976), who produced evidence from children's spontaneous speech that aspect guides the acquisition of tense during the earliest use of non-present forms of verbs. They concluded that ". . . the meaning of the child's past tense is at this point rather limited. . . the past tense has more of an aspectual value than a temporal value . . ." (p. 183).

More researchers investigating different languages (Aksu, 1978; and De Lemos, 1981, to name only two) indicated that during the early stages of development, children associate past tense with perfective aspects. In addition, Bloom and Harner (1989) argued that when children begin to add verb inflections, they are apt to use past tense with those verbs that express completion before coding past tense in general.

Results of the above studies and much more were the major reason of Bloom and Harner's (1989) reanalysis of the Weist et al. (1984) data. They reanalyzed the Polish data in order to show that it confirms the "aspect before tense" hypothesis. They argued, further, that Weist et al. (1984) proposed the "defective tense hypothesis" to explain the acquisition of early verb inflections in children language. They contended that this perspective of Weist et al. (1984) resulted in mislabeling the gradual progress of the child. Children's early usage of tense markers is not defective. Any aspect of development, they argued, cannot be labeled "defective" merely because when it first appears, it functions incompletely. The cooing of a two-month old baby is not defective babbling, nor is babbling defective single-word speech. Any sort of behavior on the part of the child is an index of emerging capacities. These are signs of development as opposed to deviance, and that is why they deemed Weist's hypothesis inappropriate.

The fact is that aspectual distinctions influence the acquisition of tense distinctions. Analysis of data from children in different languages has shown that the completed aspect of the event is a salient factor for children in that they use past tense mostly when actions are completed. Bloom and Harner (1989) were careful to emphasize that this claim does not mean that children's use of aspect marking becomes completely developed before learning tense distinctions, nor does it mean separate developments of tense and aspect. Instead, they develop together, but aspect is the earliest determining factor.

Finally, Bloom and Harner (1989) pointed out that Weist is among those who support a formal theory of acquisition that uses grammars constructed on the basis of

grammaticality judgments of adults in order to constrain what is looked for in the data of child language. By approaching child language this way, they continued, researchers may come up with the product of linguistic forms, but the process of their development over time may not be captured. What is needed is a developmental theory that uses evidence from what children utter and inquires into the process whereby the knowledge of children changes over time. It is this line of research (for instance, Antinucci & Miller, 1976) which concludes that the "aspect before tense" hypothesis is validated and that the early use of tense morphology codes aspectual distinction.

In sum, the developmental progression of four temporal systems that children are proclaimed to go through when acquiring tense and aspect of their native languages has been reviewed. Child language develops from the lack of temporal information to the ability of children to sufficiently use the temporal system of their native language. There is overwhelming evidence suggesting that the "aspect before tense" hypothesis holds true cross-linguistically. That is, children's early use of tense morphology codes aspectual distinctions. It is shown how reanalysis of the Weist et al. (1984) data was found to conform to such hypothesis though the original analysis did not claim so. In addition, it is shown how the "defective tense hypothesis" was challenged. This shows the importance of analyzing child's language with developmental theories that begin with what the child knows and inquires into the process where the knowledge of children changes over time.

Acquisition of Tense and Aspect in L2

The acquisition of grammatical morphemes in the interlanguage of L2 learners has been scrutinized thoroughly in the past three decades. During the early 1960s, it was the contrastive analysis approach. It was thought that if the usage and requirement of a given structure of the target language is similar to that of the native language, the acquisition of that structure or morpheme will be facilitated, and the converse is true. This behaviorist approach was abandoned when the mentalist interlanguage paradigm of the likes of morpheme studies and error analysis was introduced. This new paradigm examined the L1 = L2 hypothesis and was more concerned with the learner's internal processing as opposed to the emphasis of the role of L1 in contrastive analysis. As mentioned earlier, it was not long, though, before some SLA researchers began to conduct their work within the functional approach.

It was found that those who stress the differences as well as those who stress the similarities between L1 and L2 acquisition were equally misguided. Though there are similar patterns of development in the speech of SL learners, they owed much to factors other than the shape of the first and the target languages (Mclaughlin, 1989). Morpheme studies presupposed that the categories of the interlanguage are the same as those of the target language. Additionally, transfer studies claimed that the grammatical categories of L1 are part of the interlanguage. Since those studies did not reveal much about the acquisition process, it was apparent that what was needed was an approach that viewed interlanguage as "systematic in and of itself, as sets of grammatical relationships which have been established by the speaker" (Kumpf, 1984,

p. 132). This kind of reaction among many others set the stage for the process-oriented research which looks at how interlanguage develops and how learners map form-function relationships.

Research within this framework looks at how SL learners convey a given function--past-time reference, for instance--since interlanguage did not show, in most cases, that learners use morphological markers. It was evident that learners acquire the functions without acquiring the forms. Hatch (1978) argued that learning a language develops out of learning how to carry on conversation and that grammar develops out of conversation. Learners learn, first, how to interact and out of their interaction, syntactic forms evolve. This view is contrary to that which argues that learners first learn the forms and then use those forms in interactive discourse. Hatch's argument is that conversation precedes syntax. Dittmar (1981), who investigated the acquisition of temporality in the speech of native-Spanish speakers learning German, indicated that often learners used neither past ending nor auxiliary forms. Instead, some of the learners used devices such as calendar expressions. Others, on the other hand, used adverbs such as "yesterday" with an infinitive to mark past or future time. Sato (1984) indicated that SL learners rely on context and implicit inferences to mark temporality. She mentioned some devices used by L2 learners to express temporality. These include temporal adverbials, locative adverbials, clause sequencing, calendar expressions, interlocutor scaffolding, and implicit references, in narrative as well as in descriptive context.

A similar conclusion was reported by Schumann (1987), who indicated that native-Spanish subjects who were at an early stage of learning English as a second

language used neither aspectual distinctions nor tense marking. Instead, they used adverbials, implicit referencing, sequencing, and serialization to convey temporal references.

The previous pragmatic analysis shows that even when morphological markers of tense and aspect are not used, L2 learners have their own techniques for expressing temporality. This kind of analysis can uncover what learners are attempting to say, and describes how they express the pragmatic functions of the target language given the fact that they have only a limited number of lexical and grammatical devices at their disposal.

Expression of temporality by non-native speakers was also examined from a semantic perspective. Most of the work in this area (Nixon, 1986, and Rothstein, 1985, to name only two) is based on the work of Kumpf (1984). Interlanguage utterances were examined in terms of sentence-level semantics. These utterances are classified according to universal categories such as completed vs. non-completed actions.

This line of research attempts to find consistent patterns in the expression of temporality in the inter-language. Kumpf, who introduced this new perspective to the area of SLA, investigated the temporal systems of a native speaker of Japanese at an advanced level of English. Before discussing the results, Kumpf (1984) explicitly pointed out that the viewpoint she took was a "discourse functional" approach which can be applied to the analysis of native languages and interlanguage systems. She stated that

> . . . the use of a form is indexed to a particular context in discourse. Interpretation of morphological or syntactic structures are always given in terms of the

> occurrence of forms in actual discourse. The assumption is that any grammatical form appears to fulfill a function in the discourse it is the discourse context which creates the conditions under which the forms appear, and in order to explain the form, it is necessary to refer to this context. (p. 132)

Results showed that the subject used the base form of the verb to express completed actions in the foreground. No tensing was used. Background actions, on the other hand, were expressed with many different forms and most verbs were marked for tense. Kumpf concluded that since it seems that all languages have aspectual designations, but not tense distinctions, aspect is primary to tense in terms of grammaticization temporal systems. The broad distinction among language learners, it seems, is between completed and non-completed actions.

In another study of a native speaker of Spanish who was at an early stage of learning English, Kumpf (1981) reported that the learner consistently made aspectual distinctions between completed and non-completed actions. Completed actions are expressed with the base form of the verb. Non-completed actions are expressed with the base form plus "-in."

Kumpf's semantic analysis was used by other L2 researchers who studied the acquisition of temporality. Nixon (1986) inquired into the acquisition of tense and aspect in the English interlanguage of a Mandarin native speaker. She concluded that tense marking was non-existent. Nonetheless, the subject made aspectual distinctions with consistency. Flashner (1983) investigated the acquisition of temporality in the interlanguage of three Russian native speakers learning English. To express incompleted actions, the learners used the base form of the verb. Morphological past markers were used to express completed actions. Further, Rothstein (1985), who also studied the expression of temporal systems in the English interlanguage of a Hebrew

native speaker, reported that the subject used irregular English verb forms to express completed actions. Additionally, the learner used many different verb forms to express incomplet actions.

The results of the above studies seem to substantiate Kumpf's conclusion that L2 learners make broad distinctions between completed and noncompleted actions, and that tense is never grammaticized. If these conclusions are generalizable, Kumpf continued, then the contention that aspect is universally primary over tense is validated.

In sum, two types of research have been reviewed: that which searches for consistent patterns in the expression of the temporal systems in interlanguage (semantic analysis) (Kumpf, 1981, 1984, for example), and that which is concerned with how L2 learners convey temporality given the fact that they do not have at their disposal sufficient knowledge of the grammatical system of the target language (pragmatic analysis) (Dittmar, 1981, for instance). The current study falls partly within the second type. Its purpose was to unveil the devices--linguistic and non-linguistic--that L2 learners of English use to convey temporality, and to discover the developmental progression in the usage of eight grammatical structures. Since this study used the functional approach as defined by Meisel (1986) as a basis, the study of Meisel in which his functional approach was used is explored in detail. Then, it is shown how this study is similar to and different from that of Meisel's.

Meisel's Study

Meisel, first of all, pointed out that the importance of L2 data for the study of language acquisition strategies and principles could be seen in the specific options L2

learners have available during the process of acquisition. Since the development of the concepts to be conveyed in discourse represents less of a problem for adult L2 learners, researchers' attention "is appropriately focused on the changing ways in which they are expressed. Longitudinal studies of L2 development should therefore be able to reveal cognitive and communicative constraints on the use of morphological and syntactic devices to code the intended message" (p. 206).

For this goal to be achieved, he argued, L2 research has to provide us with more than just a mere description of the surface phenomena of learners' product, appearance or nonappearance of grammatical devices. What needs to be done, as he continues to offer the alternative, is that

> . . . the usual perspective has to be reversed; instead of searching for possible "interpretation" of a feature, we must define the CONCEPTS and FUNCTIONS which have to be encoded and then analyze the DEVICES used by different learners or types of learners to express these CONCEPTS and FUNCTIONS at different points on the developmental continuum [emphasis added]. (p. 206)

This is basically the functional approach that he advocates, the application of which may eventually lead to the revelation of constraints on syntactic devices used to code the intended message. Next, he provides functional interpretation of previous work by himself and his colleagues in order to see how it may be affected by this new suggested perspective. Then, he applies his suggested functional approach to the analysis of the acquisition of reference to events and actions which are situated in "not here" "not now" prior to the time of utterance" in the interlanguage of adult learners of German.

Though he conducted cross-sectional study with 45 immigrants from Italy, Portugal, and Spain, and a subsequent longitudinal study with 12 immigrants of the

same background, the analysis was focused on the language development of one Spanish learner whose linguistic development was examined over an 80-week period. Linguistic development of that Spanish learner was then compared to that of six learners in the longitudinal study. Data from those learners was also compared to data from the cross-sectional study.

Before Meisel discussed the developmental sequences of the acquisition of reference to the past, he reported the explicit and implicit devices available in standard German to refer to past actions. These devices include tense marking, adverbials, and principles of discourse organization.

Tense Marking

In German, there are a number of tense markings that refer to past events, These include: (a) preterite which refers to a single event in the past, and is constructed by adding the suffix *te* to the stem of the verb; (b) present perfect which is constructed by means of an auxiliary + past participle, and refers to an event that took place in the past and is related to the present state of affairs; and (c) past perfect which refers to a past event that took place before another event in the past. It is constructed by the use of the preterite forms of the auxiliary + past participle.

Meisel was careful to mention that these forms are not used in this way in those dialects which provide the input for the subjects. He maintained that the "preterite" has disappeared in spoken German except with coupla, auxiliary, and some modals. Therefore, Meisel's hypothesis concerning the acquisition of tense marking by his subjects was not based on the standard German tense marking, but rather on the tense markings that are used by native speakers in the actual input.

Adverbial

Another device which is used to refer to past in standard German is the use of adverbs and adverbial prepositional phrases. There are time adverbials and in some cases locative adverbials.

Principles of Discourse Organization

Finally, there are the principles of discourse organization. One such device is the "order of mention." This occurs when a speaker mentions events in a fashion where the order of mention corresponds to order of occurrence.

After describing the explicit and implicit devices used in German to refer to past events and actions, Meisel analyzed the subjects' language in order to show what developmental sequence they followed in terms of using these devices on their way to acquiring reference to past in German.

Results showed that, in the earliest stages, verbal elements were either omitted or unsystematically marked. Thus, explicit devices are not available. Learners used pragmatic devices or principles of discourse organization. These include: (a) scaffolded discourse where the learner provides alternative reference points, (b) implicit reference to an event in the speaker's past where she would assume it to be known to the hearer, (c) contrast of two or more events, and (d) order of mention follows the natural order. In this case, learners may replace a past event by "a sequence of events ordered as they actually occurred, thus situating in time the point of reference in question" (p. 213). During this stage, Meisel contended that ". . . redundant marking of temporal reference appears to be drastically reduced by eliminating verbal

inflections which are obligatory in the target language, and by giving other kinds of information only if there is the risk of misunderstanding" (p. 214).

If, however, reference to the past was made explicit by learners during this early stage, it was established by the use of adverbials and connectives. Learners used locative as well as temporal adverbs to refer to past events. Connectives such as und (and), dann (then), and aber (but) were used to refer to past actions. Meisel pointed out that the use of adverbials was often combined with one of the discourse principles, namely contrast of two or more events. By the same token, the use of connectives played an important role in connection with two of the discourse principles: contrast of two or more events, and order of mention follows the natural order. It seems obvious that principles of discourse organization, adverbials, and connectives work hand in hand to convey the reference to past actions. This strategy seems to be employed as a compensation for the lack of sufficient knowledge of verb inflections.

Meisel mentioned that in a later stage when verb inflections began to appear, it created a great deal of confusion and almost all of the inflected verbs violated the target norm. He stated that ". . . as a consequence of the beginning acquisition of verb inflection, there is considerable variation instead of previous invariance, but also great uncertainty. Nevertheless, this should be interpreted as an indication of development in L2 grammar" (p. 217).

The first form used by learners with main verbs to refer to the past was the present perfect. Even though some learners did not use the auxiliary which is required, they placed the main verb at the end of the clause which is again a requirement in German. The next step, after a long time elapsed, was the use of past tense

construction with the verb "to be." Then, learners began to use the past tense of "have." At a very late stage of development learners began to use the past tense of modals.

Meisel showed that as a result of the acquisition of a more elaborate system of linguistic devices, the importance of principles of discourse organization declined. Also,

> . . . learners are able to give reports without the support of the native speaker. Reference to point in time is frequently made explicit . . . reference not only can be made to specific point in the past, but different events in the past can be related to each other. The speaker may change perspective within the narrative; all this implies that one event can be introduced as background for another occurring later but still taking place in the past. (p. 219)

He maintained that not all of the learners followed the above-mentioned developmental sequences; some of the immigrant subjects never got as far as acquiring the present perfect.

In sum, the developmental progression of the acquisition of reference to past actions of German in the interlanguage of non-native speakers has been discussed. Learners went from the use of principles of discourse organization and adverbial phrases to refer to past where the verb is either omitted or invariant, to the limited use of verb morphology. At a very late stage, and when learners acquired a complex system of linguistic devices, their use of non-linguistic devices to refer to past decreased. Additionally, learners were capable of using the complex linguistic system to convey functions that cannot be conveyed without the acquisition of that system. It is evident that the application of Meisel's functional approach to the analysis of L2 data can uncover a great deal about the acquisition process.

The adaptation of Meisel's model was motivated by the fact that it is a comprehensive model for the study of interlanguage development. Two interrelated factors define Meisel's model:

1. It allows a multi-level analysis of learners' data. Such analysis takes into consideration not only the linguistic forms, but also the discourse strategies that learners employ to convey a given function.

2. Such analysis allows a complete account of the developmental process of interlanguage systems in the sense that the encoding of a specific function can be documented at any stage whether the encoding was represented by linguistic means or by certain discourse strategies.

This present research, while based largely on Meisel's functional approach, differs from it in at least two respects:

1. Meisel investigated the German-based interlanguage. This study investigated the English-based interlanguage of non-native speakers.

2. Meisel investigated the acquisition of "reference to past." This project specified the structures to be studied including those that refer to present actions.

Most importantly, I add a minor modification to Meisel's approach. Meisel used "function to form" analysis only. I extended Meisel's approach to include "form only[1]" analysis in addition to "function to form" analysis. In other words, this researcher reported the percentage of correct usage of each grammatical morpheme

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[1]I would like to stress the fact that "forms" always express "functions." Thus, "form only" is used in this research merely to refer to a specific type of analysis that has been utilized in SLA research, and to distinguish it from other types of analysis such as "function-to-form" and "form-to-function." "Form only" analysis refers to an analysis in which forms are considered without reference to their function.

studied which Meisel did not do. This was done to empower and validate the developmental stages established.

CHAPTER III: METHODOLOGY

Introduction

This project was carried out in two different phases within an 18-month period. In the first phase, the researcher observed the developmental process of the English tense and aspect systems in the English-based interlanguage of two adult Arabic learners who were studying English as a second language. This phase lasted 42 weeks (from July 7, 1993 to April 28, 1994). When it started, participants had been studying English in the United States for a while, and their English proficiency scores indicated that they were at approximately intermediate level. This phase ended shortly before they successfully finished the English program.

In the second phase, the development of the English temporality was observed in the interlanguage of two more adult Arabic learners who were similar in almost every aspect to the first pair (the criteria upon which all participants were selected will be elaborated upon later). This phase lasted 12 weeks (from September 9, 1994 to December 2, 1994). When it started, the participants had been studying English in the United States for only 1 week, and their English proficiency scores indicated that they were at a very early stage in the learning continuum. This phase ended when the subjects were at approximately an intermediate level.

The writer conducted this study in this manner in order to be able to observe the developmental process of the acquisition of the English temporal systems by adult Arabic learners from a very early stage until the learners reached an advanced level.

Subjects

Participants in this study were four Arab males between 26 and 32 years of age. All participants were given assumed names in order to protect their real identities. Participants of phase one of this project were named Jamal and Kareem. The former was from Saudi Arabia, and the latter was born in Kuwait, but had grown up and gone to school in Saudi Arabia. Throughout phase one, they were enrolled at the Carrer English Language Center for International Students (CELCIS) at Western Michigan University in Kalamazoo, Michigan.

I should stress the fact that it was not an easy process to find two more participants for phase two of this project. This was due to the fact that the researcher had to find two learners who had to be similar in every aspect to those of phase one. It was hoped that the researcher would be able to find two learners who would qualify as participants for phase two in the same English program that participants of phase one had been attending (CELCIS). Unfortunately, this was not possible. The next step was to look for learners who would qualify in other English programs that were comparable to CELCIS. Because of that, the process of finding participants for phase two took about 6 months.

Participants of phase two were named Joseph and Salem; both were from Qatar. Throughout phase two, they were enrolled at the English Language Center (ELC) at Michigan State University in East Lansing, Michigan. For the purpose of

abbreviation, Jamal is called participant A, Kareen is participant B, Joseph is participant C, and Salem is participant D.

The participants were enrolled at CELCIS and ELC in order to learn the English language and hence pursue their higher education in the United States. After graduating from college, participants worked for a while in their countries, then they came to the United States. Prior to their arrival in the United States, all of the subjects, whose social and cultural backgrounds were fairly homogeneous, had been exposed to English in secondary schools for 5 hours per week. They had one 60-minute English class per day. Those English classes consisted of teaching grammar, translating stories from English to Arabic and vice versa, and very basic reading and writing. According to the subjects, they were rarely given homework, and they never practiced English outside the classroom. The teachers of these English classes were native speakers of Arabic who had received their B.A.s in English Education from England or the United States. The subjects also were enrolled in several English courses in college which were taught by native speakers of English. These courses concentrated on grammar and advanced reading. The subjects maintained that they never took these English courses seriously, and they enrolled in them only because they were university requirements.

The CELCIS in which participants A and B were enrolled consisted of four levels. They were: elementary, intermediate, pre-advanced, and advanced. Classes started at 10:00 a.m. and ended at 3:00 p.m. Though the subjects had had prior exposure to English in their countries, all were placed in the elementary level at CELCIS. Classes at all levels consisted of grammar, writing, reading and

vocabulary, listening comprehension, and free conversation. In addition, the advanced level had a research class that was offered daily. Each class required some homework every day. According to the subjects, the heavy workload did not prevent them from practicing their English with non-Arabic speakers outside the classroom.

The ELC in which participants C and D were enrolled consisted also of four levels. They were: 100, 200, 300, and 400. Classes started at 8:00 a.m. and ended at 1:30 p.m. Both subjects were put in the first level (100). Classes at that level consisted of grammar, speaking and listening, reading, and writing. As in CELCIS, each class at ELS required some homework every day. Once again, the subjects maintained that the daily homework did not prevent them from practicing their English with non-Arabic speakers outside the classroom.

Social Network

Generally speaking, the participants' social life outside the classroom was fairly similar. Besides having some Arabic-speaking friends, each subject had few non-Arabic (American and non-American) friends with whom he socialized on a regular basis. For instance, one subject and his friend went bowling, played certain sports, or dined during which time they spoke English. Some subjects socialized with their non-Arabic-speaking friends more than others.

Procedures

The writer collected the data from the informants during their enrollment in CELCIS and ELC. In order to increase the validity of the study, the researcher

selected four informants who were similar in almost every aspect. The following criteria were taken into consideration during the process of selecting the participants:

1. They had to be native speakers of the same L1. (All speakers were native speakers of Arabic.)

2. They had to represent the same gender. (All subjects were males.)

3. Their age had to be identical or at least similar. (Subjects A and B were both 27 years old; subject C was 30, and subject D was 32.)

4. Their educational, economic and cultural backgrounds had to be similar. (All participants had the same educational background and they were brought up in middle class families. Further, they were all from the "Gulf of Arabic" region which maintains the same cultural values.)

5. They had to have had similar prior exposure to the English language. (All participants had had almost the same prior exposure to English prior to arriving in the United States.)

6. Most importantly, the level of English proficiency as determined by TOEFL scores was the main criterion in the selection process. It was the TOEFL scores that determined the following:

1. that subjects A and B were at a similar level of English proficiency at the beginning of phase one,

2. that subjects A and B were at approximately an intermediate level at the beginning of phase one,

3. that subjects C and D were at a similar level of proficiency at the beginning of phase two, and

4. that participants C and D were at an approximately early stage at the beginning of phase two.

The researcher clarifies at this point that he is not using the stages (early, intermediate, and so forth) in their literal meaning. They are used metaphorically to refer to the different stages that participants were at or went through in the developmental continuum. That is to say, for instance, that intermediate level does not imply that the learner is in the middle stage of learning nor does advanced level imply that the subject is in the final stage of learning.

During phase one that involved participants A and B, each subject was audiotaped four times within a 42-week period. Each taping session lasted 1 hour. The first taping session took place on July 7, 1993 when the participants were in the middle of enrolling at the intermediate level at CELCIS. TOEFL scores were 430 for subject A and 425 for subject B. The second taping session was conducted on September 28, 1993, at the beginning of their enrollment in the pre-advanced level. The third taping session was conducted on December 21, 1993, after the subjects had finished the pre-advanced level and prior to their enrollment in the advanced level. The final session was conducted on April 28, 1994 around the end of their enrollment in the advanced level.

During the second phase, subjects C and D were audiotaped twice within a 12-week period. Each session lasted 1 hour. The first taping session took place on September 9, 1994, 1 week after they had been enrolled in Level 100 at the ELC. The TOEFL scores were 333 for participant C and 345 for participant D. The second

session was conducted on December 2, 1994 at the end of their enrollment in the same level (100).

Prior to conducting both phases of the project, the researcher met each subject several times for the sole purpose of getting to know them better. This was done to ensure that they had the potential to carry on throughout the experiment. Nevertheless, they were not told the purpose of the project.

Before each taping session, the researcher conversed with the subjects in both Arabic and English for about 2 hours in order to reduce the level of anxiety. Then the subjects were asked to speak freely about their life stories. That included their families, education, interesting tales from their past, unforgettable situations that had happened to them up to date, and their experience in learning English back home and in the U. S. They were told to speak about whatever they could remember in their life. In short, there was no agenda for the sessions and it was left to them to speak freely. This was done for the purpose of obtaining as much spontaneous data as possible. In a few situations, especially with participants C and D in session 1, communication breakdown occurred. Whenever this happened, the researcher asked questions the answers to which would clarify the message that the participant attempted to convey. This phenomenon will be elaborated upon in Chapter IV.

Here are four examples from the participants' spontaneous speeches:

> . . . I think I speak not good but not bad, because I learn English in my country, but 'when' I come here, I talk English many people I think the people do not understand what did I say and I don't understand what the people said, because the accent is different, because a teacher in my country who learn me English he learn me with my accent Arabic accent. Therefore, I don't understand how the English. Sometime I think I don't learn any English in my life. That is I think the big problem face me when I come to the United States and that maybe in the class I think the teacher he understand what I said and I

understand what the understood what the teacher the teacher say, but when I go out the class any office the administration office or shopping any place I think first of all I think I don't understand what the people say, because he speak very very fast and I think the people don't understand what I said. . . . (from subject B, Karem; session 1)

. . . I had a lot of friends in elementary school and continue as friends 'till now. I went to Riyadh which is the capital city of my country to study the high school the first year of high school. Actually it was just like here the culture check for me, because I came from small city or village to big city. The students are different. The relationships are different. Always I mean everything was different. I went to Riyadh to study the first year of high school, because my aunt live alone because her husband travel a lot. So I went to Riyadh to stay with here when I back when I back to Albadaiye to complete the high school, I attend to Albadaiye high school and I fail in that year and I start smoking that year and I was mad at the guys. I went to Aldammam to visit my uncle that year and my uncle see me when I was smoking and he didn't say anything and he bring brought bring tutor to teach me physic and math because I fail in those subjects. (from subject A, Jamal; session 1)

. . . Yes, it's some teacher give me homework, more times more homework. It's more time, more, most time. Sometime more, sometimes no. It's, I think, it's good for me, homework. It is good me, because I understand, I can write homework. If I can't understand this question, I feel little, what I can do for this question. I don't remember what mean, what the teacher like for this question. I feel like look dictionary, often dictionary, some words what's mean. Every time dictionary, what's mean this word, what's mean this word. And sometimes maybe I when I dictionary take this word. The one sentence maybe different mean, I feel this, what's mean in Arabic different in English. I feel this a problem with it. It's not same exactly when, with me. It's different, I mean, it's sometimes mean difference when I it's words dictionary take what's mean. (from subject C, Joseph; session 1)

. . . I go sorry I went to another trip in Egypt the people in Egypt I think they are poor poor men when we go to the pyramids one man follow us he said you want ride a camel. We said no we don't want. They said you must come to ride it is good place. We refused to ride the camel, but he want he want us to ride. After that, we said o.k. ride it we ride the camel go about five minute. He was with us. Then he said I want Zo Jeneh (Egyptian money). We said why only around five minutes. He said no you take more than five minutes. We refuse to give him to give him this money, because that is expensive. After he call to his friend and his friend come to ask they want five. When we see this group. We said o.k. o.k. what we can we do, and after we never go to these pyramid. You this people all problems. . . . (from subject D, Salem; session 2)

The subjects were told to turn off the tape recorder whenever they could not remember anything. Then, when they were ready to speak, they turned it on. Thus, each 1-hour recorded tape was the result of up to a 3-hour session.

Since it was anticipated that there might be no instances where some of the structures had to be used in the spontaneous speech, and since it was anticipated that the subjects would not use all of the structures, forced elicitation was used. In each session, the researcher asked each subject two questions for each one of the eight structures under investigation. Originally, this was to be carried out after the subject finished his 1-hour speech. However, the researcher thought that it would be more natural to ask those questions during the taping sessions. That is to say, while the subject spoke about a given situation and the researcher felt is was appropriate to ask a question, the researcher asked the question, and after the subject answered, he continued speaking. Here is an example of subject B speaking about his daughter: "Before 2 weeks, I find preschool Arabic preschool accept my daughter. The problem my daughter she can't adjust with the children" (from session 2).

At that point is was appropriate to ask the following question, "How long has she been going to that school?" That question was in regard to his knowledge of the present perfect progressive.

Here is another example of subject A talking about a girl he had met: "Yesterday another funny situation happened when I was I was talking with my friend. I saw the I saw beautiful girl. . . " (from session 2).

After he said so, he paused for a minute during which the researcher felt it was appropriate to ask the following question, "What was she doing when you saw

her?" Once again, this question was in regard to his knowledge of one of the eight structures, simple past progressive.

The questions-answer method has the weakness of allowing subjects to infer the correct answer from the form of the question, since the morphemes that had to be used in the answer are already included in the form of the question. Nevertheless, the researcher used it for several reasons:

1. It is not always the case that the above inference would take place.

2. This method is only a small part of the method used in this project.

3. The researcher asked the questions orally, so the level of inference was expected to be very low.

4. The researcher believed that if a subject did not know the structure in question, or knew it but had not yet started to use it in his spontaneous speech, he or she may not have inferred anyway.

After each session, the 1-hour tape was then transcribed by the researcher and 5 minutes of it was retranscribed by someone else for a reliability check. The forced elicited question-answer data were transcribed as they actually took place on the tape. Each 1-hour transcribed session turned out to be about 14-25 pages of handwritten or double-spaced typed material. The writer then coded each instance in which the subject attempted to convey one of the eight functions:

1. Regular or habitual occurrence of an event (simple present tense),

2. Single event in the past (simple past tense),

3. Single ongoing occurrence of an event in the present time (simple present progressive),

4. An event in progress simultaneous with another one-time event in the past (simple past progressive),

5. An event in the past that is related to the present state of affairs (present perfect),

6. An event in the past that occurred before another event in the past (past perfect),

7. An action that took place in the past and is still continuing into the present (present perfect progressive), and

8. An event in the past that had limited duration, and that occurred before another event in the past (past perfect progressive).

After each instance in which the subject attempted to convey one of the above functions was identified, the researcher then looked for the following:

1. whether or not the subject supplied the verb itself, and if he did,

2. whether or not he supplied the correct morphemes to convey the function, and if not, and[2]

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[2]During the coding of the data, I encountered a very interesting problem. In a few cases, the subjects used grammatical structures that were acceptable and used by native speakers of English. Yet, these structures were grammatically incorrect according to English grammar textbooks. Following is an example from Subject A in Session 2: "My mother get married after 2 years of my father's death. In that time between my father dead and my mother get married I was living with my grandfather. . . ." In this case, "I was living" is perfectly acceptable in everyday English. But according to grammar books of English language, the subject should have used the past perfect progressive "I had been living." In this study, correctness of grammatical structures was judged according to standard English textbooks. Hence, Subject A's structure "I was living," though acceptable and used by native speakers, was considered incorrect.

If this study were to be duplicated, I would use three categories for the purpose of judging correctness of grammatical structures. A grammatical structure would be classified under one of the following: (a) grammatically correct according

3. what devices--linguistic and non-linguistic--were used to convey the function.

In order to do the above, the researcher used four columns for each transcript of each session. The columns were entitled "Concept," "Correctness," "Elements Used," and "Correction." The first column contained the functions that the subject intended to convey. The second indicated whether or not he used the correct morphology. The third showed the actual elements used in an attempt to convey the functions. The researcher observed the following:

1. the verb itself was either missing or present,

2. the morphemes that convey a given function were either used correctly or missing, and

3. when the verb and/or the morphemes were missing, the researcher wrote down other devices used by the subject to assist in conveying the functions.

In the fourth column entitled "Correction," the researcher wrote down the correct usage that the subject did not supply.

While transcribing the data, the researcher encountered a methodological problem regarding the identification of some of the grammatical morphemes that mark tense and aspect. In few situations, the phonological environment made it difficult to decide whether or not the learner supplied a given grammatical morpheme. Dulay, Burt, and Krashen mentioned the cases of "Back-to-back phonemes" and "Back-to-

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to English grammar textbooks and also acceptable when used in everyday speech; (b) grammatically incorrect according to standard English textbooks, but acceptable when used in everyday speech; and (c) incorrect and unacceptable.

back stops" (1982, pp. 255-257). In fact, the researcher faced both problems during the transcription of the data, as illustrated in the following examples:

1. ". . . I met my advisor and we talked directly about my major. . . ."

2. ". . . In the first semester, I started to look for scholarship. . . ." (subject A, session 1)

3. ". . . After 3 years, when I finished the university, I find I find the scholarship. . . ." (subject B, session 1).

In the first example (talked directly), both cases of back-to-back phonemes and back-to-back stop are shown. In the second and third examples (started to and finished the university), the second case, back-to-back stops, is shown.

Fortunately, Arabic learners of English, especially at the early stages, have a tendency to sometimes exaggerate the sound of grammatical morphemes at the end of words. Whenever exaggeration took place, this methodological problem was overcome. But in those cases where it was ambiguous, the researcher eliminated those examples from analysis altogether. All in all, the number of cases where the researcher faced this methodological problem was fairly small in the overall data.

Below are actual transcriptions followed by actual transcription coding sheets to show how the results were recorded.

> After I finish the high school, I was go to University my major in University is law was law. After 1 year, I change my major go to the education. In the University, the life is different than in high school, because student is bigger in University than in high school. The system is different and in my country the University have both girls and boys different than in high school only student only boy student. No girl no girls in the school. It is different for me, because before we enjoy everything in high school. You can make an problem with a teacher . You can play with your friends, but in the University is very different. I think that and the relationship between the student with us and the relationship between the student and the teacher is different than the

relationship between a student and the teacher in high school and in the University some actions some actions happen in my life in University (participant B, Kareem; session 1).

Table 3. Transcription coding sheet of the spontaneous speech of participant B.

Concept	Correctness	Elements Used	Correction
simple past	x	finish; connective after was used	finished
simple past	x	was go	went
simple past	x	change; connective after was used	changed
simple past	x	go	went
past perfect	x	enjoy; locative adverbial phrase was used: in high school	had enjoyed
simple present	✓	think	
past perfect	x	happen; locative adverb was used: in university	had happened

. . . my mother get married after 2 years of my father's death. IN that time between my father dead and my mother get married I was living with my grandfather and he was treat me like his sons and he got mad when I call him my grandfather. He said "call me my father: BoiBd." I have three uncles. One of them was in the same age with me . . . I was really good in school; elementary school. There was a guy. In all elementary school, he challenge with me he get the first in the first year and and I was the second; and he was the second and I was the first; then he was the first and I was the second in the third year. In the final, finally, when we were in the sixth, I got I was the first and he was the second. At that time, I have, well, it is not a joke, but something funny. I have caution. His name is like my name. He is bad at each class in elementary school. He does not care about anything. He stayed in the sixth year about 2 years (participant A, Jamal; session 2).

Table 4. Transcription coding sheet of the spontaneous speech of participant A.

Concept	Correctness	Elements Used	Correction
simple past	x	get; temporal adverbial phrase was used: After two years of my father's death.	

Table 4. (cont'd).

Concept	Correctness	Elements Used	Correction
past perfect progressive	x	was living	had been living
past perfect progressive	x	treat	had been treating
simple past	x	call	called
simple past	✓	said	
simple present	✓	have	
past perfect	x	challenge: locative adverbial phrase was used: In elementary school.	had challenged
simple past	x	get	got
simple present	✓	got	
simple past	x	have: temporal adverbial phrase was used: At that time	had
past perfect progressive	x	is: locative adverbial phrase was used: in elementary school	had been
past perfect	x	stayed	had stayed

Interviewer: "I thought you said you visited Asid."
Participant: "Yes, Pakistan . . . for hunting, yes. It is good place for hunting . . . more birds more . . . more. I tell you in first time first day. I get up in morning, to pray Fajer. After that take a breakfast; drink tea with milk, go three people one car, or two people . . . three people with car k. . . and go. Some people go north . . . some people go south. Different place, and go to hunting Habari 'till afternoon. After we be tired, so stop. Eat meat drink tea. We have tent . . . tents.
Interviewer: "Was it safe?"
Participant: "It's have like police, government, government give maybe 10 or 12 police, yes to stay in the tent with our guns, yes, because it's dangerous place . . . 12, yes, work with our group, with my group for one month."
(subject C, Joseph; session 1)

Table 5. Transcription coding sheet of the spontaneous speech of participant C.

Concept	Correctness	Elements Used	Correction
simple present	✓	tell	
simple past	x	get: locative adverbial phrase was used: in first time first day. Also temporal adverbial phrase was used: in morning	got
simple past	x	take	took
simple past	x	drink	drank
simple past	x	go (4 times): implicit reference: subject assumes interviewer can infer that it had to be situated at a specific point in the past	went
simple past	x	stop	stopped
simple past	x	eat	ate
	x	drink serialization: sequencing events as they actually took place. Also after was used.	drank
simple present	x	have	has
simple past	x	give	gave
pst perfect progressive	x	work, temporal adverbial phrase was used: for one month	had been working

Interviewer: "What did you like the most in Lebanon? Was it good?"
Participant: "Somehow, I think it is natural and eh, museum, I like it.
Interviewer: "You liked the museum?"
Participant: "Yes, I like it."
Interviewer: "And you liked the nature?"
Participant: "Yeah, I Like it a lot." (participant D, Salem; session 1)

Table 6. Transcription coding sheet of the spontaneous speech of participant D.

Concept	Correctness	Elements Used	Correction
simple present	✓	think	
simple past	x	like (3 times): scaffolding discourse	liked

The forced elicited data of each session was coded along with the natural speech as it actually took place in the tape and the transcript. It was indicated in the first column that the structure was forced elicited. One example is shown in Table 7:

Table 7. Transcription coding sheet of forced elicited data.

Concept	Correctness	Elements Used	Correction
simple past progressive [forced elicited]	x	play	were playing

To ensure the accuracy of the above coding, a native speaker of English was hired to double-check the coding of a small portion of each transcript--approximately three pages. Prior to performing this task, the researcher thoroughly explained to her what the purpose of this project was. Next, she and the researcher read the three pages of each transcript. They then reread them, statement by statement. Once the native speaker understood what the subject attempted to convey in his statement, the researcher asked the native speaker how she would say it. Her responses were compared to the researcher's already-conducted coding.

After each transcript was coded as the above columns show, the researcher then counted the obligatory occasions in which the morphemes that convey each one

of the eight functions had to be used. Then, the percentage of correct usage to the obligatory occasions was determined. The ratio of simple past progressive forms supplied to the number of possible simple past progressive forms multiplied by 100 gives the frequency-of-use rate in percentage form (3/5 x 100 = 60%).

The correct versus incorrect usage was determined as follows:

1. A structure was determined to be used correctly only if the verb along with all the required morphemes to convey a given function was provided correctly according to standard English. For instance, for a correct usage of the simple past progressive, the subject would have to provide copula + verb + ing.

2. If the morphemes that convey the functions were missing, it was considered incorrect usage.

3. If the verb was missing, or if a verb was incorrectly replaced by a copula, this was also considered as incorrect usage.

Finally, the coding sheets were used to uncover the devices other than morphemes that were used to assist in the conveyance of the functions whenever the required morphology was missing.

CHAPTER IV: RESULTS AND DISCUSSION

Introduction

Results of this project will be presented and discussed in the following manner. First, the data of participants C and D during session 1 will be cited and discussed. Then the data of the above participants during session 2 will be presented and then compared to the data of participants A and B during session 1. (Bear in mind that participants C and D during session 2, and A and B during session 1, were all at approximately an intermediate level at that point.) Finally, data of participants A and B during sessions 2, 3, and 4 will be presented and discussed.

Spontaneous Data of Subjects C and D in Session 1

The spontaneous data of subjects C and D during session 1 showed that the use of the English inflectional morphology regarding tense and aspect was non-existent. There has been no exception in the entire corpus, and even the irregular past tense which does not require inflectional morphology was not used correctly at all. In every utterance, regardless of the functions to be conveyed, the subjects used verbal elements in their invariant forms. There were instances where even the invariant verbal elements were completely omitted.

How, then, did they convey the functions under investigation if the English inflectional morphology was not at work? Careful analysis of the data revealed that

in order for the subjects to overcome their lack of knowledge of the English inflectional system, they used other linguistic and non-linguistic devices to assist them in expressing the English temporal notions. Linguistic devices included adverbials of different types and connectives. Adverbials included location adverbial phrases ("in my country"), and temporal adverbials such as time adverbs ("yesterday"), time adverbial clauses ("when I get up this morning"), and time adverbial phrases ("at 1:15"). Connectives that the subjects used included "and," "then," and "after that." Non-linguistic devices consist of what has been called "principles of discourse organization" (Meisel, 1986).

It was shown that temporality was expressed by different means, one of which was what is called "scaffolded discourse." In such situations, there is ". . . considerable interaction between the learner and the interlocutor, the latter asking questions and frequently also providing possible answers. Occasionally, this looks like a multiple-choice procedure, and the learner merely has to pick the right point of reference among the several suggested by the native interlocutor" (Meisel, 1986: 212-213). In such instances, the interlocutor would assume that the learner is having difficulty conveying the intended meaning and that the conversation is about to break down. In order to allow the learner to express himself, the interlocutor would ask question(s) to which the learner may respond yes or no. Presented below is a conversation between subject C, session 1, and the researcher. The participant was speaking about his experience in middle school, and was asked why he suddenly became a good student.

1 Learner: "Eh, I think its, eh, friends. This, eh, special reason. Our friend, I think."

2 Interlocutor: "What do you mean?"

3 Learner: "Help. . . ."

4 Interlocutor: "Did he help you?"

5 Learner: "Yes, and, for writing, reading, more than I will be little little become good."

In the above example, it was not clear what the participant meant by associating doing well in school to having friends or a friend. Then, when he was asked about what he meant, he said one word, "help," and then did not say anything else. At that point, the interlocutor asked a question with the correct grammatical morphemes that indicated pastness: "Did he help you?" The subject, then, said "Yes," then elaborated on the kind of help that he received from that particular friend. In another example, during session 1 subject C had difficulty expressing the fact that he had visited the United States in the past. The interlocutor, then, realized this difficulty and started to ask constant questions to clarify the matter.

1 Learner: "I think America, and America. America, I like."

2 Interlocutor: "Really."

3 Learner: "Yes."

4 Interlocutor: "Why? You just, you have been here for only few days, right?"

5 Learner: "No, No. I come visit America."

6 Interlocutor: "Oh, okay, did you visit America before?"

7 Learner: "Yes, my brother study here I visit."

8 Interlocutor: "Okay. So, this is not your first time."

9 Learner: "No, the third, four, four times."

10 Interlocutor: "How many times had you visited America?"

11 Learner: "Yes, this fourth time."

As can be seen in the above example, scaffolded discourse and interaction between the learner and his interlocutor clarified the matter completely. Such interaction took place merely because the listener felt that the learner was about to give up and that breakdown of the conversation was about to occur. This researcher emphasizes that all participants were told to turn off the tape recorder if they could not remember anything. In such instances as the above examples, the learner had a topic to talk about, but had difficulty expressing himself. Without the interlocutor interference or cooperation, conversation could easily have broken down. As can be seen in the above cooperative discourse, it was the interlocutor who established pastness in lines 6 and 10, and the learner just confirmed it, and then elaborated.

Another means by which temporality was established was what is called "implicit reference." In this case, reference to temporal notions is inferred from a particular context or situation (Schumann, 1987). Meisel (1986) mentioned that an example of such is when the learner speaks about an event assuming that the listener will be able to infer the specific point in which the event is situated (such as past or future). Implicit reference can be inferred in narrative as well as descriptive contexts (Sato, 1984).

There were a few instances in the data where temporality was inferred from a descriptive context. One such example took place during the conversation with participant D. While he was speaking about his native country, Qatar, he stood up, looked at a map of his country hanging on the wall of his room, pointed at a specific city on the map, and uttered, "Live there all my life." This researcher interpreted this as, "I had been living in this city all of my life before I came to the United States.

Also, temporal reference was inferred in narrative contexts. Below are listed some examples from both subjects.

1 "I little speak English, he repeat again slowly." (participant D)

2 "I fell happy the student answer right." (participant D)

3 "I go play soccer, I meet him." (participant C)

4 "I go with group, see this hotel." (participant D)

5 "I not live in Beirut, I go out." (participant C)

In example 1, subject D was speaking about an American person whom he met the previous week in the market. Earlier in the conversation, he established that this incident took place prior to the taping session. He then went on to speak about what happened in the store. Thus, even though his statement did not include any linguistic devices of any kind, it is clear that it is interpreted as, "When the person realized that I spoke little English, he repeated what he already said very slowly."

The same analysis applies to example 2. Participant D was speaking about his experience as a teacher in his country. He established pastness prior to that statement by the use of the locative adverb "in my country." He was, then, speaking about a

particular student with whom he worked hard. Therefore, example 2 is interpreted as "I felt happy when he got the right answer to my question." How linguistic and non-linguistic devices work together cooperatively will be discussed later.

Examples 3 and 4 were produced under the same circumstances as examples 1 and 2 and can be analyzed the same way, but example 5 provides something rather interesting. Nothing in the immediate context indicated pastness, but world knowledge and common sense would indicate that participant C must have visited Beirut prior to coming to the United States. Hence, his statement can be read as, "When I visited Lebanon, I did not live in Beirut (the capitol), I lived outside the town, perhaps in another city."

A third means by which temporality was inferred was what is called "serialization" (Schumann, 1987) or "order of mention follows the natural order" (Meisel, 1986). In this case, the learner sequences events as they actually happened, and it is not difficult for the hearer to infer temporality though morphological markers are non-existent. Since this principle is mostly used in this data in connection with the linguistic devices (connectives), the researcher will discuss it in detail in the subsequent section.

As the English temporality was inferred by what is called "principles of discourse organization," participants also used a great deal of adverbials and connectives to compensate for the lack of the English inflectional morphology in their interlanguage systems. Here are some examples where they used adverbials.

1 "In 1986, I have another son." (participant D)

2 "When I finish University, I go to teach . . . go to middle school . . . to teacher middle school." (participant C)

3 " I come from Detroit maybe 9:15 eh 9:10 p.m." (participant C)

4 "Since come here, I improve a lot." (participant D)

5 "I see him in Qatar University many times." (participant D)

6 "Now, I study English." (participant C)

As can be seen in the first three examples, though participants did not provide the correct morphemes to indicate pastness, the supplement of the adverbial phrase "in 1986," adverbial clause "when I finish University," and another adverbial phrase "9:15" showed that the events had to be in the past. In the second example, it is clear that participant C finished the University prior to coming to the United States, and in the third example, the same participant mentioned the adverbial phrase "9:15 p.m." while he was speaking later that day. In the fourth example, participant D provided the invariant form of the verb "improve" instead of the present perfect which is required. Nonetheless, the supplement of the adverbial clause "since come here" made the message clear though the required morphological markers were missing. In example 5, participant D did not use the "past perfect" that was required; however, the locative adverbial phrase "in Qatar University" and the temporal adverbial "many times" assisted in conveying the intended meaning though he only supplied the present form of the verb "see." Similarly, the time adverb "now" in example 6 showed that the event is in progress at the present time even though participant C did not use the morphological markers that were required to convey such function. It is interesting to note that in all of the above examples, participants

supplied the invariant forms of the verb, and it was the adverbials that indicated the different functions to be conveyed.

Participants also used connectives in order to assist them in the conveyance of different functions. Connectives consisted of mainly "and," "then," and "after that." As mentioned above, and in most cases, they used connectives in combination with a principle of discourse organization called "sequencing of events as they actually happened." Simply put, when participants mentioned past events as they actually occurred, they used one or more of these markers to connect the sequenced events. Two examples from the speech of participants C and D are presented below.

> "Yeah, I getting up morning, 7, 7 o'clock. And eat breakfast, and go to class. Eh, the class have two and a half hour I have between this break and this break to ten half, ten thirty, it is finish, and eh, go to library before eat breakfast . . . and go library and union and come back to one thirty five next class. Next class finish two, eh, two thirty, and come back home little cooking, and if I am no tired, cooking something to eat after that write homework, show t.v., see t.v., eh, see t.v. and go come back to sleep that is all. . . ." (participant C)

> ". . . After that I think I lucky in Qatar Football Association because I stay there more time, more than one year. Different about before. Stay from '82 to '86. When finish my secondary school at night, eh high school, sorry, continue to study in Qatar in that city. After that, I excused from my job to study in University. They say okay, no problem. After that, I got chance for me study until from '86 to '90, 1990." (participant D)

It is obvious from the above examples that participants did not use the required morphological markers that convey specific functions; nevertheless, serialization in addition to the use of connectives made it easy for the listener to understand the intended messages. Participant C was talking about his activities the previous day (from the time he got up until he went to sleep), and participant D spoke about events that took place within a span of 7 years. Both participants used only the invariant

form of the verb, but sequencing the events as they actually happened and connecting them one after the other not only assisted them in expressing their message, but also helped the interlocutor to be able to interpret and understand the intended meaning. In a few cases, even when connectives were not used, sequencing by itself was sufficient to aid in the intended meaning. Consider the following example where participant C mentioned the countries he had visited before he came to the United States.

"Go to Lebanon, eh go to Vienna, more country go with our family, with my family. More country, and eh, Gulf place, to Emirates, go Saudi Arabia, go Kuwait, all visit when I small in elementary school that all the country I remember visit."

In the above example, the subject mentioned the countries he had visited starting with the first country he went to, Lebanon, and ending with the last one, Kuwait. The order of mention followed the actual order of visits. Though there are no connectives, it is not difficult to infer the meaning and completely comprehend the message.

Since it has already been shown that connectives and sequencing work together, it is appropriate to discuss the interrelationship of all devices that have been used so far. It is true that temporality--in a great number of cases--was inferred mainly by a single device. But there were also cases in which temporal notions were inferred by more than one device. The previous example is a classic illustration of those cases where different devices work together and assist in conveying the message. It showed evidence of sequencing. However, closer scrutiny reveals that two more devices were used as well. First, the adverbial clause "when I small" and the locative adverbial

phrase "in elementary school" indicate the events had to be situated in the past. Second, implicit reference (shared knowledge and knowledge of the world) showed that the subject must have visited these countries prior to the time of speaking. Temporality in this particular instance was basically inferred by means of three devices--sequencing, adverbials, and implicit reference. It clearly shows the advantages of function-to-form analysis, and of analyzing the data beyond the morpho-syntactic level. This will be discussed in more detail later in this chapter.

The findings above parallel those of other studies that investigated the acquisition of temporality. Schumann (1987) investigated the acquisition of temporality in the English-based interlanguage of five learners. Results showed that learners did not use morphological markers at all. Instead, they used adverbials, serialization, calendar reference, and implicit reference to convey temporal notions. Dittmar (1981), who studied the acquisition of German temporality by Spanish immigrants, found that morphological markers were not used by the learners. As a result, they used calendar expression and adverbials to convey temporality. Finally, in her analysis of the acquisition of temporality in the interlanguage of two Vietnamese learners of English, Sato (1984) found that they used adverbials, clause sequencing, calendar expression, interlocutor scaffolding, and implicit reference to convey the English temporal systems. Though the two learners used the irregular past tense correctly on a few occasions, morphological markers were non-existent in the data. It seems that L2 learners, regardless of their native languages and the target languages they are learning, employ similar strategies when they attempt to communicate in a

language about which they have a limited number of lexical and grammatical devices at their disposal.

Forced Elicited Data of Subjects C and D in Session 1

The above discussion was in regard to the spontaneous speech of the two participants. The researcher now turns to the forced elicited data. As mentioned earlier, each participant was asked two questions for each one of the eight structures. The results were completely consistent with the patterns of the spontaneous speech. In response to the questions the answer to which required the supplement of the base of the verb, simple present tense, they provided the correct answers 100% of the time. Does this show their knowledge of this structure? This researcher does not believe so. The base form of the verb was used throughout their spontaneous speech to refer to all of the eight functions under investigation. Apparently, it is the only element they used to express different functions. Thus, their correct responses to the questions were only coincidentally correct, and may not indicate their knowledge of this structure as much as they indicated that they supplied the only verbal element they had at their disposal. This claim is supported by the fact that when they were asked the questions in regard to the simple past tense, simple progressive (present and past), they responded by supplying only the base form of the verb:

Interlocutor: "What do you think he is doing?

Learner: "I think it is now take his children to school . . . ." (participant C)

As to the participants' responses to the question regarding the perfect and perfect progressive (present and past), there was either complete lack of comprehension or they did not supply any verbal elements at all.

It has already been claimed that participants used only the base form of the verb to refer to all functions in the spontaneous speech. Nonetheless, whenever the supplement of the base form was used to refer to a regular or habitual occurrence of an event, it was considered correct usage on the part of the learner. Tables 8 and 9 summarize the complete results.

Spontaneous Data of Subjects C and D in Session 2,
and Subjects A and B in Session 1

During the period in which participants C and D were recorded in session 2, and the period during which participants A and B were taped for the very first time, all participants at that point had been studying English in the United States for a while and were at an approximately intermediate level. Hence, it was assumed that analysis of their spontaneous data would show similar patterns in their conveyance of the English temporality. Analysis showed that, except for slight differences, there were striking similarities in the ways all participants expressed the English temporal notions, and in the strategies they used to compensate for their lack of knowledge of the English grammatical rules in regard to temporality.

As shown earlier, participants C and D did not use any inflectional morphology to refer to any of the eight structures in session 1. But their speech during session 2 revealed a substantial development in their interlanguage systems (see Table 10.) First, "interlocutor scaffolding" was not provided. This means that they were able to speak continually without great difficulty, and there was no need for the listener to interfere. Second, temporality was not inferred by means of "implicit reference" as

Table 8. Percentage of correct usage for each structure in the spontaneous speech of participants C and D during session 1.

Grammatical Structure	Participant C			Participant D		
	Required	Supplied	%	Required	Supplied	%
Simple present	109	70	64	89	51	57
Simple past	113	0	0	153	0	0
Simple present progressive	4	0	0	6	0	0
Simple past progressive	5	0	0	4	0	0
Present perfect	7	0	0	11	0	0
Past perfect	19	0	0	14	0	0
Present perfect progressive	4	0	0	3	0	0
Past perfect progressive	2	0	0	3	0	0

Table 9. Percentage of correct responses to the forced elicited data by participants C and D during session 1.

Grammatical Structure	Participant C			Participant D		
	Questions	Correct Response	%	Questions	Correct Response	%
Simple present	2	2	100	2	2	100
Simple past	2	0	0	2	0	0
Simple present progressive	2	0	0	2	0	0
Simple past progressive	2	0	0	2	0	0
Present perfect	2	0	0	2	0	0
Past perfect	2	0	0	2	0	0
Present perfect progressive	2	0	0	2	0	0
Past perfect progressive	2	0	0	2	0	0

Table 10. Development of participant C and D's usage of the eight structures from session 1 to session 2.

Grammatical Structure	Participant C						Participant D					
	Session 1			Session 2			Session 1			Session 2		
	Req.	Sup.	%	Req.	Sup.	%	Req.	Sup.	%	Req.	Sup.	%
Simple present	109	70	64	112	91	81	89	51	57	138	122	88
Simple past	113	0	0	141	45	32	153	0	0	109	37	34
Simple present progressive	4	0	0	7	4	57	6	0	0	8	5	63
Simple past progressive	5	0	0	6	3	50	4	0	0	6	3	50
Present perfect	7	0	0	9	0	0	11	0	0	12	0	0
Past perfect	19	0	0	27	0	0	14	0	0	22	0	0
Present perfect progressive	4	0	0	4	0	0	3	0	0	3	0	0
Past perfect progressive	2	0	0	3	0	0	3	0	0	1	0	0

Note. Req. = required; Sup. = supplied.

much as was the case in session 1. Third and most importantly, some of the morphological markers that are required to mark the English tense and aspect begin to appearin their speech. It is appropriate now to compare their spontaneous speech in session 2 to that of participants A and B in session 1.

Data showed that during that period, none of the four participants supplied those morphological markers that convey the perfect aspect by itself or in combination with the progressive aspect. Whenever the supplement of such markers was required, in a great number of cases they supplied the invariant form of the verb, copula, or the simple past tense along with different adverbials to assist them in conveying the intended message. Presented below are two examples from participants A and D.

"I like the reading class more than others, because since I came here, I learn a lot of vocabulary, and also I like the grammar, because, I learn how the English sentence structure." (participant A, session 1)

"So far, it is good experience in America for me." (participant D, session 2)

It is seen in the first example how participant A used the base form of the verb "learn" instead of the present perfect which is required. From the context and the supplement of the adverbial clause "since I came here," it is clear that the present perfect is required. Though the correct morphology was not supplied, his statement is understandable due to the supplement of the adverbial clause.

In the second example, the copula "is" was used even through the adverbial clause "so far" indicates that the present perfect progressive "has been" is required. Nonetheless, his meaning is understood without the supplement of the required morphology. It is interesting to note that even though the perfect was not used at all

in the spontaneous speech, it is easy for the listener to capture the intended meaning if more attention is paid to the whole context.

As to the usage of the progressive aspect by itself to express present or past actions, there were striking similarities in the performance of all participants. For participants A and B, out of six instances in which they had to indicate that an action is in progress at the present time, they used it three times correctly (50%); participant C used it correctly four times out of seven (57%), and participant D used the correct morphological markers five times our of 8 (63%). When they referred to events that were in progress simultaneously with another one-time event in the past, participant A used the correct morphemes three out of five times (60%). Participant B used them correctly 2 out of 5 times (40%). Participants C and D used the morphological markers correctly three times out of six (50%). When participants did not supply the required morphemes to convey these functions, in most cases they used time adverbs that would show that an action is or was in progress, such as "now." For instance, when participant A was talking about his best friend and how great she had been to him, he said, "By the way it is 7:00 p.m. now and probably she play volleyball."

When participants referred to regular or habitual events which require no more morphology than the base form of the verb, they all did very well. For participant A, out of 99 instances where this function had to be expressed, he supplied the correct usage 91 times (92%). Participant B used it correctly 134 times out of 150 (89%). Participants C and D used the present tense correctly 91 out of 112 times (81%) and 122 out of 138 times (88%), respectively. Omission of the verbal element all

together and the usage of copula (such as "is" or "are") accounted for those cases where this function was not expressed correctly according to standard English.

So far, the performance of all participants has been extremely similar when attempting to convey the above functions. Nevertheless, when the participants referred to a single event in the past, simple past tense, the data showed interesting patterns. Participant A did very well, participant B very poorly, and the performance of participants C and D was neither good nor poor. Participant A used the correct morphology to convey this function 94 out of 159 times (59%). Participant B provided the correct usage only 21 out of 111 times (19%). Participant C used it correctly 45 out of 141 times (32%), and participant D supplied the correct usage 37 times out of 109 (34%).

Interestingly enough, though the performance of participants A and B differed in terms of the general correct usage when expressing this function, the patterns of the correct usage of the regular past tense, which is the supplement of the base form of the verb + ed, was very similar among all subjects. For participant A, out of 94 times in which he conveyed this function correctly, only 13 times involved a regular verb where he supplied the base form + ed (14%). In addition, out of 62 times where the base form + ed had to be used, he correctly used it 13 times (21%). And for subject B, out of 21 instances where he correctly used the past tense, only 3 times did the correct usage involve the supplement of the base + ed (14%). And out of 38 times where the conveyance of this function required the supplement of "ed," he correctly supplied it 3 times (8%). Participant C supplied "ed" in only 7 instances out of 45 correct usage of past tense (16%). And out of 46 times where the

expression of this function required the use of "ed," he used it only 7 times (15%). Finally, participant D expressed this function using the base form + ed in only 5 instances out of 37 correct usage (14%). And out of 40 times in which the use of the base form of the verb + ed was required, he correctly supplied it 5 times (13%). See Table 11 for the complete results of all participants. The percentage of the correct usage that involved the supplement of the base form of the verb + ed out of the general correct usage of this structure is almost identical--14%, 14%, 16%, and 14% for participants A, B, C, and D respectively. This is incredibly striking, and requires one to ponder about this phenomenon. It suggests that the English inflectional morphology had just begun to emerge in their interlanguage systems. This also explains why the majority of their correct usage of this structure involved the irregular past tense since it does not require any additional morphemes. Instead, it requires the supplement of a different lexical form. This argument may be weakened due to the fact that the percentage of correct usage in regard to the "simple progressive," which also requires the use of inflectional morphology, was fairly high. Nonetheless, the number of instances in which the "simple progressive" had to be used in the overall data was too low to defuse the above argument. It may be safe, then, to claim that the participants had already learned (know) the morphemes that had to be used to convey these three functions (simple past, simple present progressive, and simple past progressive), but these morphemes had not yet been fully acquired and grammaticized (used in everyday speech) in their interlanguage systems. At this point, it seems necessary to explain what is meant by "learned" and "acquired" in this context.

Table 11. Comparison of the spontaneous speech data of participants C and D in session 2 to that of participants A and B in session 1.

Grammatical Structure	Participant C			Participant D			Participant A			Participant B		
	Session 2			Session 2			Session 1			Session 1		
	Req.	Sup.	%	Req.	Sup.	%	Req.	Sup.	%	Req.	Sup.	%
Simple present	112	91	81	138	122	88	99	91	92	150	134	89
Simple past	141	45	32	109	37	34	159	94	59	111	21	19
Regular	46	7	15	40	5	13	62	13	21	38	3	8
Irregular	95	38	40	69	32	46	97	81	84	73	18	25
Simple present progressive	7	4	57	8	5	63	6	3	50	6	3	50
Simple past progressive	6	3	50	6	3	50	5	3	60	5	2	40
Present perfect	9	0	0	12	0	0	6	0	0	10	0	0
Past perfect	27	0	0	22	0	0	12	0	0	46	0	0
Present perfect progressive	4	0	0	3	0	0	3	0	0	2	0	0
Past perfect progressive	3	0	0	1	0	0	2	0	0	2	0	0

Note. Req. = required; Sup. = supplied.

According to Krashen (1985, p. 1), acquisition is "a subconscious process identical in all important ways to the process children utilize in acquiring their firstlanguage," and learning is the "conscious process that results in [knowing about] language." Krashen claimed that acquisition is maintained through meaningful interaction in natural settings where learners are concerned with meaning and not form, and no correction is taking place. In learning situations such as the classroom on the other hand, correction is central and formal rules and feedback are the basis for language instruction. This does not mean, however, that setting is what distinguish acquisition from learning. To Krashen, it is the conscious attention to rules that distinguishes the two.

Regardless of the validity or shortcomings of Krashen's argument, this researcher is not using the terms according to how Krashen defined them. In this context, the term "learned" refers to any grammatical rule that participants know--consciously or subconsciously--but they either do not use it at all or its use is very limited in the spontaneous speech. And by what is "acquired," this researcher refers to those rules that participants know--consciously or subconsciously--and use to varying degrees in their spontaneous conversation. In other words, learning is knowing the rules of the target language, but not necessarily applying them in the spontaneous speech. Acquisition, on the other hand, is knowing the rules and to a great extent applying them in actual spontaneous conversation. Thus, to Krashen, consciousness is what distinguishes learning from acquisition. And to this researcher, actual usage of the grammatical rules in spontaneous speech is what determines the

difference between learning and acquisition regardless of whether or not the learner knows these rules consciously or subconsciously.

It is interesting that in a substantial number of instances where the required morphemes that indicated that a single event took place in the past were missing, participants used adverbials and connectives in an attempt to convey the function. Adverbial phrases include locative and temporal phrases such as calendar expressions. Relational temporal expressions were used as well. Connectives include "then," "after that," and "and." Since some examples from participants C and D using adverbials and connectives were shown earlier, the researcher will show some examples from the spontaneous speech of participants A and B, respectively, in session 1.

"I attend to primary school in 1973." "When I reach the United States, I feel like some difficulty breathing." "When I was 2 years old, my father die." "All the information that I got I know it before I mean I know it in my country." (participant A, session 1)

"In high school, I remember I do I make relationship with the student." "In 1986, the Kuwait Union Student he stop the . . . excuse me, in 1987, the stop the life in the University, he stop the life. . . ." "When I arrived here, my friends from Kuwait from Saudi Arabia from United Emirate help me to do many things. . . ." (participant B, session 1)

It can be seen from the above quotations how both subjects used different kinds of adverbial phrases in a clear attempt to convey the functions to be expressed.

As the participants used adverbial phrases, they also used other linguistic devices, namely connectives, to assist them in conveying the intended messages since their knowledge of the English grammatical rules was not sufficient to convey the functions. Some examples from participants A and B, session 1, are presented below.

"My manager said you can apply in any institute scholarship for you from the University. Then I apply to the ELC and they accept me. Then I come to the United States to studying English." "When I went to his apartment . . . he was very busy. . . . Then I stay in his apartment about 5 days. Then I move to the dorm." (participant A, session 1)

"When he put the message, I was pray the answer . . . and I can't answer. . . . After that I listen to the message and call him after that." "I heard the news . . . and go to the radio . . . and I listen for the radio that morning talking about Iraq and he shout please help. . . . After that, I go to my family. After that, I stay one week in Kuwait with my family." (participant B, session 1)

It can be seen how they used connectives to help them communicate better. In some cases, they both used a very interesting strategy. First of all, they set the stage by the correct usage of the first tense. Then they used connectives followed by only the base form of the verb. From the context, it is not difficult for the listener or reader to immediately identify these base forms of the verb following the connectives as those which are meant to refer to past actions.

It is interesting to note that participants C and D used the same strategy. Also, and more interestingly, participants A and B not only used the same connectives that participants C and D used in session 1 and continued to use in session 2 ("and,"

"then," and "after that"), but also their usage of connectives was, in most cases, when they sequenced past events. Differently put, all participants used connectives along with the non-linguistic device (serialization).

As mentioned earlier, "interlocutor scaffolding" was one of the major means by which temporality was inferred in the speech of participants C and D in session 1. During session 2 of these two participants and during session 1 of participants A and B, this non-linguistic device was not needed. "Implicit reference" was used much less by participants C and D in session 2 than in session 1. It is believed that this is due to the general development of the interlanguage systems, and to the fact that inflectional morphology began to emerge in the spontaneous speech. Finally, "sequencing," "adverbials," and "connectives" were used in session 2 by participants C and D as much as they were used in session 1, and these three devices were used in a similar fashion by participants A and B in session 1.

Forced Elicited Data of Subjects C and D in Session 2 and Subjects A and B in Session 1

The above discussion concerns the participants' spontaneous speech. The researcher will turn now to the forced elicited data. Each participant was asked two questions for each structure.

As mentioned previously, during session 1 participants C and D did not respond correctly to any question except those that required the supplement of the base form of the verb--simple present tense, and I mentioned that that might have been coincidental correctness. During session 2, their responses showed significant

improvement (see Table 12). Table 13 summarizes how all participants--C and D in session 2, and A and B in session 1--performed in the forced elicited task.

When the participants were asked the questions that required the use of the base form, simple present, all participants provided the correct usage 100% of the time. This is predictable since they all did very well in using this structure in their spontaneous speech.

When responses to the questions required the use of the base form + ed, simple past tense, participants' performance was somehow consistent with that of the spontaneous speech. Participant A who did above average in his spontaneous speech (59%), and C and D who did below average (32% and 34% respectively), supplied one correct usage out of two (50%). Participant B, who did very poorly in using this structure correctly (19%), did not respond correctly to any question (0%). He provided the base form only when the base + ed had to be used.

All participants did about average in their correct usage of the simple progressive--present and past--in the spontaneous speech. When they were asked the questions in regard to these two structures, their responses were somehow inconsistent with that of the spontaneous speech. Participants A, C, and D, whose correct usage of the simple present and simple past progressive in the spontaneous speech were 50% and 60%, 57% and 50%, and 63% and 50% respectively, responded correctly to the questions 100% of the time. This inconsistency may empower this researcher's claim regarding acquisition (using) and learning (knowing). The three participants probably had learned (knew) about the morphemes that had to be used regarding the

Table 12. Development of correct responses to the forced elicited data by participants C and D from session 1 to session 2.

Grammatical Structure	Participant C						Participant D					
	Session 1			Session 2			Session 1			Session 2		
	Que.	C.R.	%	Que.	C.R.	%	Que.	C.R.	%	Que.	C.R.	%
Simple present	2	2	100	2	2	100	2	2	100	2	2	100
Simple past	2	0	0	2	1	50	2	0	0	2	1	50
Simple present progressive	2	0	0	2	2	100	2	0	0	2	2	100
Simple past progressive	2	0	0	2	2	100	2	0	0	2	2	100
Present perfect	2	0	0	2	0	0	2	0	0	2	0	0
Past perfect	2	0	0	2	0	0	2	0	0	2	0	0
Present perfect progressive	2	0	0	2	0	0	2	0	0	2	0	0
Past perfect progressive	2	0	0	2	0	0	2	0	0	2	0	0

Note. Que. = number of questions; C.R. = number of correct responses.

Table 13. Comparison of the forced elicited data of participants C and D in session 2 to that of participants A and B in session 1.

Grammatical Structure	Participant C			Participant D			Participant A			Participant B		
	Session 2			Session 2			Session 1			Session 1		
	Que.	C.R.	%	Que.	C.R.	%	Que.	C.R.	%	Que.	C.R.	%
Simple present	2	2	100	2	2	100	2	2	100	2	2	100
Simple past	2	1	50	2	1	50	2	1	50	2	0	0
Simple present progressive	2	2	100	2	2	100	2	2	100	2	0	0
Simple past progressive	2	2	100	2	1	50	2	2	100	2	0	0
Present perfect	2	0	0	2	0	0	2	2	100	2	0	0
Past perfect	2	0	0	2	0	0	2	0	0	2	0	0
Present perfect progressive	2	0	0	2	0	0	2	0	0	2	0	0
Past perfect progressive	2	0	0	2	0	0	2	0	0	2	0	0

Note. Que. = number of questions; C.R. = number of correct responses.

progressive, but these morphemes had not yet been fully acquired (used regularly in spontaneous speech) by the participants.

Participant B, whose performance was similar to the other participants in the spontaneous speech (50% and 40% for simple present and simple past progressive respectively) did not respond to the questions correctly at all (0%). Since this is the case, this researcher hypothesized that his correct usage of the progressive aspect in the spontaneous speech may not reflect any kind of knowledge of the progressive aspect. Probably the phrases in which he correctly used the progressive were memorized as a whole chunk, and he had learned how to use them in conversation. This hypothesis is supported by the fact that the three instances in which he used the simple present progressive correctly all involved the phrase "I am working hard now." By the same token, the two instances in which he used the simple past progressive involved the same phrase "I was sleeping." In one instance he said, "I was sleeping when you call me." In another, he said, "I was sleeping when my brother closed the door." Another possibility is that the lexical aspect of the verb may have led to the use of the progressive. Both "work" and "sleep" are the lexically durative verbs. This phenomenon was observed by Bardovi-Harlig (1992a). It is also possible that it was a mere lack of comprehension of the researcher's questions on the part of the learner, but this possibility is weakened by the fact that participant B did poorly in the other structures compared to the other participants.

All participants did not use the perfect either by itself or in combination with the progressive aspect at all in the spontaneous speech. When participants were asked the questions in regard to these structures, their responses were consistent with their

performance in the spontaneous task except for participant A who responded correctly to the two questions regarding the present perfect. It is argued that this inconsistency may be the result of one of two factors. One, probably he supplied the correct morphemes merely because he already heard them in the form of the questions. But the question remains why did he not supply the other morphemes that convey the other functions as well since they also were included in the form of the questions. Two, probably he already learned (knew)--as in the case of the progressive aspect--the morphemes that convey the present perfect, but he had not yet started to use them in his spontaneous speech.

To this end, it is clear that interlanguage systems at the early stages lack inflectional morphology (participants C and D in session 1). During such a stage, learners are able to compensate for such lack of knowledge by using different devices and various strategies in order to be able to communicate and converse. At a later stage, and when inflectional morphology begins to emerge (participants C and D in session 2), interlocutor scaffolding is not needed. Hence, learners are able to speak continually without any assistance. Also, at this stage, temporality is not inferred by implicit reference as much as at the early stage. Finally, adverbials, connectives, and sequencing were used by participants C and D in session 2 at a similar rate as that of session 1, and all four participants used these three devices in a similar fashion.

It is striking that the patterns observed in regard to the expression of temporality among the four participants were very similar. There were variations in that participant A was at the top of the spectrum, participant B was at the lower level, and

participants C and D were in the middle. However, the overall general performances by all participants were amazingly similar.

Spontaneous Data of Subjects A and B in Session 2

It has already been shown how the interlanguage systems of participants C and D developed from session 1 (early stage) to session 2 (intermediate stage). It was also shown how the data of participants C and D in session 2 parallel that of participants A and B in session 1. Please note that when the latter participants were taped for the very first time, they were already at an intermediate level.

When participants A and B were taped at a later stage (when they were at approximately a pre-advanced level), their performance had improved with regard to correctly using the structures (see Table 14). During session 1, both participants did not use the perfect aspect by itself or in combination with the progressive aspect in their spontaneous speech. During session 2, though the perfect progressive along with past perfect were not used correctly by both participants, the correct usage of present perfect began to appear in their spontaneous speech. Because participant A did generally better than participant B during session 1, he used the morphemes that express the present perfect four times as opposed to only one time in participant B's speech. The present perfect had to be used 13 times in the spontaneous speech of participant A; he used it correctly 4 times (31%). Participant B used it only one time out of seven (14%).

As in session 1, whenever the participants did not provide the correct morphemes to convey the perfect or perfect progressive, they would supply the base form of the verb, base form + ed, or copula along with adverbial phrases to assist them in

Table 14. Development of participant A and B's correct usage of the eight structures from session 1 to session 2.

Grammatical Structure	Participant A						Participant B					
	Session 1			Session 2			Session 1			Session 2		
	Req.	Sup.	%	Req.	Sup.	%	Req.	Sup.	%	Req.	Sup.	%
Simple present	99	91	92	102	101	99	150	134	89	144	133	92
Simple past	159	94	59	192	166	87	111	21	19	204	117	57
Regular	62	13	21	44	28	64	38	3	8	94	47	50
Irregular	97	81	84	148	138	93	73	18	25	110	70	64
Simple present progressive	6	3	50	6	5	83	6	3	50	6	4	67
Simple past progressive	5	3	60	5	4	80	5	2	40	6	4	67
Present perfect	6	0	0	13	4	31	10	0	0	7	1	14
Past perfect	12	0	0	25	0	0	46	0	0	49	0	0
Present perfect progressive	3	0	0	4	0	0	2	0	0	5	0	0
Past perfect progressive	2	0	0	5	0	0	2	0	0	8	0	0

Note. Req. = required; Sup. = supplied.

conveying the intended messages. Below is an example from participant A's spontaneous speech when as he talked about his life in the United States.

"Since I got here, I have many, I have a lot of experience, I have some dangerous situations I got dangerous situations . . . and I learned a lot about the American culture. . . ." ". . . we made several trips when I was in elementary school."

It can be seen how he used the base form of the verb and base form + ed instead of the present perfect which is required. He meant to say that during his stay in the U. S., he has had a lot of experience and has been in many dangerous situations. He also thinks that he has learned a lot about this new culture. From the adverbial phrase "since I got here," it is not difficult for the listener to detect the intended meaning.

The second example also shows that he used the base form the verb "made" instead of the past perfect, but the listener can clearly understand the intended message.

Presented below is an example from participant B's speech as he spoke about an earlier visit to Niagara Falls.

"I suggest to my brother to spent this time in Niagara Falls, because many friends for long time recommended this place. . . ."

In this example the adverbial phrase "for a long time," along with the whole context, shows that present perfect is required instead of that which the participant supplied, the base + ed. However, the listener can detect the intended meaning.

As to the correct usage of the correct morphemes to show that an action is in progress--simple present and simple past progressive--both participants had improved during session 2. Participant A used simple present progressive correctly five times out of six (83%) as opposed to 50% during session 1. With regard to simple past progressive, he supplied the correct morphemes four times out of 5 (80%) compared to 60% during session 1.

Because participant B did not provide the morphemes that indicate his knowledge of the progressive in the forced elicited data in session 1, the researcher speculates that he had not learned (knew) these structures yet. In his spontaneous speech of session 2, he correctly used the simple present and simple past progressive four times out of six (67%). As in session 1, the participants supplied the base form of the verb along with some adverbs that indicated that an action is in progress. One such adverbial phrase is "at this moment."

With regard to simple present tense, participant A improved from 92% during session 1 to a near perfect score (99%) in session 2; he used it correctly 101 times out of 192 occasions. Participant B used it correctly 92% (133 times out of 144) as opposed to 89% during session 1.

The performance of the two participants also had improved in regard to the correct usage of the simple past tense. Participant A used it correctly 166 times out of 192 (87%). This is compared to session 1 where he correctly used it only 59% of the time. More noticeably, participant B, who did poorly in session 1 when attempting to express this function (19%), had improved dramatically in session 2; he used it correctly 117 times out of 204 (57%).

During session 1, both participants did very poorly when expressing this function required the use of the base form + ed. During session 2, both participants had improved in this category. For participant A, out of 44 instances where the base form + ed had to be used to convey this function, he supplied the correct usage 28 times (64%). This is compared to only 21% in session 1. The dramatic improvement in regard to this category was the performance of participant B in session 2. Out of 94 times where the base form + ed had to be used, he correctly supplied it 47 times (50%). This is a substantial improvement over 8% in session 1. Both participants did better when expressing this function required the use of the irregular past tense. For participant A, out of 148 instances where he had to use the irregular form of the verb to convey this function, he used 138 times (93%). Participant B, on the other hand, used it correctly 70 times out of 110 (64%).

In the analysis of session 1, this researcher claims that the participants' poor performance with regard to the usage of the morpheme "ed" may be an indication of the lack of acquiring the past tense marker. Since they did well in session 2 compared to session 1 with regard to the supplement of "ed," the researcher expects that this structure is in the process of being completely grammaticized in their interlanguage systems.

As in session 1, in a great number of cases where the required morphemes that indicate reference to past actions are missing, the participants used adverbial phrases and connectives to assist them in achieving better communication. Temporal and locative adverbial phrases were used along with connectives such as "and." Presented below are some examples from participants A and B, respectively.

"When I six, five and a half years old, my uncle, my uncle send me to the school and on that day actually at the night of the first day I couldn't sleep I was excited. . . ." "My father die 24 years ago."

"Two months ago, I decide to bring my family here. . . ." "In August 20 . . . I decide with my brother to visit Niagara Falls in Canada." "I remember when I was in college, the union student of the college do travel or visit to the jail the central jail in my country."

It can be seen in these examples, as in session 1, how different types of adverbial phrases are used to help in conveying the functions to be expressed. In addition to using adverbial phrases, the participants used connectives as they did in session 1. Interestingly enough, in some cases they used the same strategy as they did in session 1 in that they first of all set the stage by the correct usage of the first tense. Then they sequenced events as they actually occurred in their natural order using only the base form of the verb. The listener can easily infer that those base forms refer to past actions. Also, as in the case of participants C and D in sessions 1 and 2, and these participants in session 1, they used connectives along with serialization. It was apparent that because their interlanguage systems had developed especially in regard to the use of past tense, their usage of adverbials, connectives, and sequencing decreased. Besides, there were only a few cases where temporality was inferred by the means of implicit reference.

Forced Elicited Data of Subjects A and B in Session 2

The forced elicited data show that the participants did better than not only their performance in the spontaneous speech, but also better than their responses to the

questions in session 1 (see Table 15). In other words, as the participants had improved in their usage of the eight structures in their spontaneous speech during session 2, they had also improved in their responses to the questions they were asked in session 2.

When they were asked the questions that required the usage of the base form of the verb--simple present tense--they responded correctly 100% of the time. This was completely predictable since they did very well in using this structure even in session 1.

When the questions concerned the usage of the simple past tense, participant A, who did very well in his usage of this structure in his spontaneous speech in session 2 (87%), provided the correct usage 100% of the time. Participant B, whose usage of this structure had improved considerably in his spontaneous speech in session 2, responded to one out of two questions correctly (50%). This is consistent with his usage of this structure in his speech (57%).

The participants' responses to the questions in regard to the usage of progressive revealed interesting patterns in session 1 in that their responses were inconsistent with their performance in the spontaneous data. During session 2, their responses to the questions regarding these two structures--simple present and simple past progressive--were somewhat consistent with their performance in their spontaneous speech. For participant A, who did well in the usage of these structures in his spontaneous speech, responded to all of the questions correctly (100%). Participant B, who also did quite well in his usage of the progressive in session 2 (67%), responded 100% correctly to the two questions regarding present progressive and 50% correctly with

Table 15. Development of correct responses to the forced elicited data by participants A and B from session 1 to session 2.

Grammatical Structure	Participant A						Participant B					
	Session 1			Session 2			Session 1			Session 2		
	Que.	C.R.	%	Que.	C.R.	%	Que.	C.R.	%	Que.	C.R.	%
Simple present	2	2	100	2	2	100	2	2	100	2	2	100
Simple past	2	1	50	2	2	100	2	0	0	2	1	50
Simple present progressive	2	2	100	2	2	100	2	0	0	2	2	100
Simple past progressive	2	2	100	2	2	100	2	0	0	2	1	50
Present perfect	2	2	100	2	2	100	2	0	0	2	1	50
Past perfect	2	0	0	2	1	50	2	0	0	2	1	50
Present perfect progressive	2	0	0	2	2	100	2	0	0	2	2	100
Past perfect progressive	2	0	0	2	1	50	2	0	0	2	1	50

Note. Que. = number of questions; C.R. = number of correct responses.

regard to past progressive. His correct usage in the spontaneous data regarding the present and past progressive was identical, unlike his response to the questions. It is difficult, at this point, to speculate on this inconsistency. Nonetheless, both participants did very well in regard to using these two structures in session 2.

The most noticeable development in the participants' interlanguage systems was the appearance and correct usage of the present perfect in their spontaneous speech during the second session. When they were asked the questions regarding this structure, their responses were somewhat consistent with that of the spontaneous data. Participant A, who used present perfect 31% correctly in his spontaneous speech, answered 100% of the questions correctly. Participant B, who used the present perfect only one time out of seven instances in the spontaneous data, answered one question correctly (50%). The researcher will elaborate on this later.

In the spontaneous data, both participants did not use the past perfect, present perfect progressive, or past perfect progressive. Surprisingly, their responses to the questions in regard to the above structures reveal some kind of knowledge about these structures. More interestingly, though the participants differed in their correct usage of almost every structure during the two sessions, their responses to the questions regarding the above structures were identical. For past perfect and past perfect progressive, they answered one out of two questions correctly (50%). For present perfect progressive, 100% of their responses were correct. The researcher speculates, according to the above patterns, that both participants had already known the morphemes that had to be used to convey the past perfect and perfect progressive--present and past--but they had not yet started to use them in their spontaneous speech. As to

the present perfect, the researcher assumes that it is in the process of being grammaticized in their interlanguage systems since it had been used in the spontaneous speech. If a given structure is taught and learned, but not grammaticized in the interlanguage system, the learner may comprehend it and respond to it correctly if asked a question containing that structure, but probably would not use it in his or her spontaneous speech.

To summarize, it seems obvious that at the very early stage, interlanguage systems lacked inflectional morphology in regard to the English tense and aspect. At later stages, inflectional morphology emerged, and the more advanced the stage, the more correct usage of morphological markers that mark tense and aspect increased. In addition, there seemed to be a delay in correctly using the perfect structures. As to devices other than morphological markers that were used to refer to temporal notions, they seemed to decrease as the usage of inflectional morphology increased.

Spontaneous Data of Subjects A and B in Sessions 3 and 4

Participants A and B had also been taped two more times (sessions 3 and 4) when they were at an advanced stage. After transcription and analysis, it was shown that the patterns of usage regarding the English temporality were extremely similar in the two sessions. In fact, the patterns of correct usage for certain structures were almost identical for both subjects in both sessions. Thus, this researcher excluded session 3 in favor of session 4 for the purpose of analysis since the latter reflects the most recent development of their interlanguage systems.

Interestingly enough, though the spontaneous speech of the participants during session 4 was obtained almost 7 months after the conclusion of session 2, there was very slight improvement in regard to the correct usage of the eight structures.

As shown previously, the perfect and perfect progressive--present and past--were not used correctly at all during session 1. Then, during session 2, they provided the correct morphemes that mark the present perfect on only a few occasions (31% and 14% for participants A and B respectively). During session 4, participants' correct usage regarding the above structures improved very slightly. The data showed the following: (a) First, participants did not use the "past perfect" and "past perfect progressive" correctly at all, (b) second, the correct usage of present perfect had improved from 31% and 14% in session 2 to 40% and 30% in session 4 for participants A and B respectively. Participant A provided the correct morphemes 4 out of 10 times and participant B 3 out of 10 times, (c) third, and most noticeably, the use of morphemes that mark the present perfect progressive began to emerge in their interlanguage. Out of five instances in which this structure had to be used, participant A used it correctly two times (40%) and participant B used it correctly only one time (20%).

The correct usage of the simple progressive showed the most noticed improvement, especially for participant B. In regard to the simple present progressive, both participants used it correctly seven times out of eight (88%). If this was a noticeable improvement for participant B compared to session 2 (67%), it was not for participant A who already used it correctly (83%) in session 2. Both participants improved their correct usage of the simple past progressive. Participant A used it correctly 100% of

the time (five times out of five) compared to 80% of the time in session 2. Participant B used it correctly 83% of the time (five times out of six) as opposed to 67% of the time in session 2.

Surprisingly, the least improvement was in regard to the correct usage of the simple past tense. Generally speaking, participant A did better than participant B in the first session and continued to do so throughout session 4. Participants A and B, especially B, substantially improved from session 1 (59% and 19%) to session 2 (87% and 57%) for participants A and B respectively. During session 4, there was extremely slight improvement. Participant A used it correctly 90% of the time (130 times out of 145) compared to 87% of the time in session 2. Participant B used it correctly 59% (68 out of 116 times) of the time compared to 57% of the time in session 2. Participants' improvement was quite better regarding the correct usage of the regular past tense (base form + ed). It was shown that they did poorly in session 1, then improved significantly in session 2 (from 21% and 8% to 64% and 50%, respectively, for participants A and B). During session 4, participant A improved to 73% and participant B to 60% when the correct usage of past tense required the supplement of the base form of the verb + ed.

Finally, and as predicted, both participants performed perfectly (100%) in using the simple present tense. This is the structure that they had done well in using throughout all taping sessions (see Table 16 for complete results of the spontaneous data of participants A and B throughout all sessions).

During sessions 1 and 2, it was shown how devices other than inflectional morphology were used to assist in the conveyance of meaning. It was also shown

Table 16. Development of participant A and B's correct usage of the eight structures from session 1 through session 4.

Grammatical Structure	Participant A								
	Session 1			Session 2			Session 4		
	Req.	Sup.	%	Req.	Sup.	%	Req.	Sup.	%
Simple present	99	91	92	102	101	99	105	105	100
Simple past	159	94	59	192	166	87	145	130	90
Regular	62	13	21	44	28	64	47	34	73
Irregular	97	81	84	148	138	93	98	96	98
Simple present progressive	6	3	50	6	5	83	8	7	88
Simple past progressive	5	3	60	5	4	80	5	5	100
Present perfect	6	0	0	13	4	31	10	4	40
Past perfect	12	0	0	25	0	0	28	0	0
Present perfect progressive	3	0	0	4	0	0	5	2	40
Past perfect progressive	2	0	0	5	0	0	4	0	0

Note. Req. = required; Sup. = supplied.

Table 16. (cont'd).

Grammatical Structure	Participant B								
	Session 1			Session 2			Session 4		
	Req.	Sup.	%	Req.	Sup.	%	Req.	Sup.	%
Simple present	150	134	89	144	133	92	177	177	100
Simple past	111	21	19	204	117	57	116	86	59
Regular	38	3	8	94	47	50	62	37	60
Irregular	73	18	25	110	70	64	54	31	57
Simple present progressive	6	3	50	6	4	67	8	7	88
Simple past progressive	5	2	40	6	4	67	6	5	83
Present perfect	10	0	0	7	1	14	10	3	30
Past perfect	46	0	0	49	0	0	23	0	0
Present perfect progressive	2	0	0	5	0	0	5	1	20
Past perfect progressive	2	0	0	8	0	0	10	0	0

Note. Req. = required; Sup. = supplied.

how the use of such devices decreased in session 2 as a result of the increased correct usage of inflectional morphology. In session 4, the use of those devices was similar in every aspect to that of session 2. This is not surprising since their usage of inflectional morphology did not significantly improve in between the two sessions. They used adverbials, connectives, and sequencing in most cases where the required morphological markers were missing. However, there were very few instances in which temporality was inferred by an implicit reference.

Forced Elicited Data of Subjects A and B in Session 4

When participants were asked the questions the response to which required the supplement of the simple present, simple past, and simple progressive--present and past--they responded to all of the questions correctly (100%). This was predictable for participant A since he did so during session 2. As for participant B, this showed improvement since in session 2, he responded to only one question correctly (50%) regarding simple past and simple past progressive. The performance of both participants in session 4 regarding these four structures is also consistent with that of their spontaneous speech. They did fairly well, especially the simple progressive in their spontaneous speech in session 4.

As to their responses to the questions regarding the present perfect, past perfect, present perfect progressive, and past perfect progressive, there were slight differences in the performance of the two participants. Participant A answered all of the questions regarding these four structures correctly (100%) except past perfect where he answered only one question correctly (50%). This is similar to his performance in session 2 except for past perfect progressive where in session 2 he gave a

correct response to only one question regarding this structure (50%). The performance of participant B in session 4 was identical to that of session 2. With regard to present perfect, past perfect, and past perfect progressive, he responded correctly to only one question (50%). And he correctly answered the two questions regarding present perfect progressive (100%). Overall, then, the performance of the two participants was the same in regard to past perfect and present perfect progressive and differed regarding the other two structures. Also, their responses were roughly consistent with their performance in the spontaneous task. The correct usage of the present perfect slightly increased and the correct usage of the present perfect progressive just began to emerge in their spontaneous speech in session 4. Thus, it was not surprising when they responded well to the questions regarding these two structures. What was surprising was that they responded fairly well--especially participant A--to the questions regarding the past perfect and past perfect progressive, not only in session 4, but also in session 2 even though the correct usage of these two structures had yet to emerge in their spontaneous speech. The only explanation is that they already knew the rules, but they had not yet begun to use them in their spontaneous speech. There is also one observation worthy of pondering. The only structure out of the perfect and perfect progressive structures that both participants during sessions 2 and 4 responded to 100% of its questions correctly was the present perfect progressive. Interestingly enough, this is the same structure that both participants began to use in their spontaneous speech in session 4. Is this a mere coincidence or were the participants following natural hierarchies in language acquisition? Bear in mind that correct usage of present perfect emerged in their spontaneous speech during session 2,

and that, too, coincided with the participants--especially A--responding well to the question regarding present perfect. In fact, participant A responded to questions regarding present perfect very well much earlier (session 1). This researcher will elaborate on this along with the delay of emergence of past perfect as well. See Table 17 for a summary of the forced elicited task by participants A and B during all sessions.

To summarize, it is obvious that the interlanguage systems of both participants had not substantially improved from session 2 to session 4, especially regarding the perfect structures. Hence, it may be safe to conclude that the patterns of correct usage of the eight structures and the strategies used to convey meanings in session 4 were very much similar to those employed in session 2. In other words, participants' performance when they were at an intermediate level was similar to their performance at the so-called advanced stage in the learning continuum.

General Discussion

Now that all results of all participants throughout all sessions have been cited (see Table 18 for a summary of the data), the overall observations will be further discussed. The developmental process of interlanguage systems regarding the English tense and aspect unveiled an interesting picture. At the very early stage, participants C and D did not use the English inflectional system at all. As a result, conveyance of the English temporality was expressed by different means. Linguistic and non-linguistic devices were used to compensate for the lack of using the morphological markers that convey the temporal notions. At that early stage, interlocutor scaffolding was such an important means by which temporality was inferred. It seemed, at

Table 17. Development of correct responses to the forced elicited data by participants A and B from session 1 through session 4.

Grammatical Structure	Participant A								
	Session 1			Session 2			Session 4		
	Que.	C.R.	%	Que.	C.R.	%	Que.	C.R.	%
Simple present	2	2	100	2	2	100	2	2	100
Simple past	2	1	50	2	2	100	2	2	100
Simple present progressive	2	2	100	2	2	100	2	2	100
Simple past progressive	2	2	100	2	2	100	2	2	100
Present perfect	2	2	100	2	2	100	2	2	100
Past perfect	2	0	0	2	1	50	2	1	50
Present perfect progressive	2	0	0	2	2	100	2	2	100
Past perfect progressive	2	0	0	2	1	50	2	2	100

Note. Que. = number of questions; C.R. = number of correct responses.

Table 17. (cont'd).

Grammatical Structure	Participant B								
	Session 1			Session 2			Session 4		
	Que.	C.R.	%	Que.	C.R.	%	Que.	C.R.	%
Simple present	2	2	100	2	2	100	2	2	100
Simple past	2	0	0	2	1	50	2	2	100
Simple present progressive	2	0	0	2	2	100	2	2	100
Simple past progressive	2	0	0	2	1	50	2	2	100
Present perfect	2	0	0	2	1	50	2	1	50
Past perfect	2	0	0	2	1	50	2	1	50
Present perfect progressive	2	0	0	2	2	100	2	2	100
Past perfect progressive	2	0	0	2	1	50	2	1	50

Note. Que. = number of questions; C.R. = number of correct responses.

Table 18. Development of the interlanguage systems of all participants as a unit from an early stage to an advanced level.

Grammatical Structure	Early stage: participants C and D in session 1					
	Participant C			Participant D		
	Req.	Sup.	%	Req.	Sup.	%
Simple present	109	70	64	89	51	57
Simple past	113	0	0	153	0	0
Regular	0	0	0	0	0	0
Irregular	0	0	0	0	0	0
Simple present progressive	4	0	0	6	0	0
Simple past progressive	5	0	0	4	0	0
Present perfect	7	0	0	11	0	0
Past perfect	19	0	0	14	0	0
Present perfect progressive	4	0	0	3	0	0
Past perfect progressive	2	0	0	3	0	0

Note. Req. = required; Sup. = supplied.

Table 18. (cont'd).

Grammatical Structure	Intermediate stage: participants C and D in session 2 and A and B in session 1											
	Participant C			Participant D			Participant A			Participant B		
	Req.	Sup.	%	Req.	Sup.	%	Req.	Sup.	%	Req.	Sup.	%
Simple present	112	91	81	138	122	88	99	91	92	150	134	89
Simple past	141	45	32	109	37	34	159	94	59	111	21	19
Regular	46	7	15	40	5	13	62	13	21	38	3	8
Irregular	95	38	40	69	32	46	79	81	84	73	18	25
Simple present progressive	7	4	57	8	5	63	6	3	50	6	3	50
Simple past progressive	6	3	50	6	3	50	5	3	60	5	2	40
Present perfect	9	0	0	12	0	0	6	0	0	10	0	0
Past perfect	27	0	0	22	0	0	12	0	0	46	0	0
Present perfect progressive	4	0	0	3	0	0	3	0	0	2	0	0
Past perfect progressive	0	0	0	1	0	0	2	0	0	2	0	0

Note. Req. = required; Sup. = supplied.

Table 18. (cont'd).

Grammatical Structure	Pre-advanced stage: participants A and B in session 2						Advanced stage: participants A and B in session 4					
	Participant A			Participant B			Participant A			Participant B		
	Req.	Sup.	%	Req.	Sup.	%	Req.	Sup.	%	Req.	Sup.	%
Simple present	102	101	99	144	133	92	105	105	100	177	177	100
Simple past	192	166	87	204	117	57	145	130	90	116	68	59
Regular	44	28	64	94	47	50	47	34	73	62	37	60
Irregular	148	138	93	110	70	64	98	96	98	54	31	57
Simple present progressive	6	5	83	6	4	67	8	7	88	8	7	88
Simple past progressive	5	4	80	6	4	67	5	5	100	6	5	83
Present perfect	13	4	31	7	1	14	10	4	40	10	3	30
Past perfect	25	0	0	49	0	0	28	0	0	23	0	0
Present perfect progressive	4	0	0	5	0	0	5	2	40	5	1	20
Past perfect progressive	5	0	0	8	0	0	4	0	0	10	0	0

Note. Req. = required; Sup. = supplied.

points, that without such scaffolding, communication would break down, and the interlocutor assistance was necessary and unavoidable. It was interesting to observe how learners strived to convey notions in a language where they had little lexicon at their disposal, and their knowledge of the grammatical rules was mainly non-existent. It was more interesting to observe the compensation strategies and the ability of learners to overcome such obstacles and defy reality, and eventually be able to communicate under such difficult circumstances. It is amazing that learners' speech at such an early stage can easily be understandable if one looks at the whole context and pays more attention to devices other than the inflectional morphology. In fact, the interlanguage systems at that early stage may just be a system of communication and not even a language in the fullest sense (Schumann, 1987). Schumann (1987) stated that communication at the early stages of language development might be

> . . . an exercise in general problem solving. When basilung speakers want to say something in the target language, they take their knowledge of target language words and phrases and the experience they have constructing utterances, narratives, and conversation in their native language and use these tools to communicate what they want to say. This solution does not require any highly specific linguistic system that may be necessary for the acquisition of the complexities of morpho-syntax. (p. 39)

This seems to be an accurate account of the early stage of participants C and D in this study. A second look at the data of these two participants in session 1 reveals that they did use English words and phrases, but their speech would have been uttered differently by a fluent speaker of English who has mastered the language, or even by a non-fluent speaker of English who has sufficient knowledge of the English lexicon and grammatical rules. Regardless of whether or not participants C and D used a true language or a system of communication, they were able to employ

different strategies in order to overcome their deficiency and convey messages in a unique and understandable way.

When the two participants were observed 3 months later, their language had significantly improved not only in the sense that inflectional morphology began to appear, but also the interlocutor assistance was not needed. They were able to freely and continually speak with much less difficulty than in the first session. This is not to say that they had sufficient knowledge of the target language, but instead, they were able to use--to some extent--some of the newly-learned grammatical rules. Interestingly, participants A and B who were in session 1 at a similar stage in the learning continuum, compared to participants C and D in session 2, expressed the English temporality in a very similar fashion to that of participants C and D. All participants at that intermediate stage did not use morpho-syntax to mark the perfect structures at all. Likewise, all participants used linguistic and non-linguistic devices to assist them in conveying temporal notions in most cases where morpho-syntax was not used. Finally, participants C and D used adverbials, connectives, and serialization in a similar manner and the same rate as that of session 1.

When participants A and B were observed at a later stage (session 2), their correct usage of the English inflectional morphology had improved substantially in regard to simple past, simple present progressive, and simple past progressive. Also, the usage of those morphemes that mark the present perfect began to emerge in their interlanguage. Additionally, as a result of such improvement, the usage of devices other than morphology to refer to temporal notions had decreased. Surprisingly enough, when the same participants were taped two more times within almost a

7-month period (sessions 3 and 4 respectively), there was slight improvement in their correct usage of the English tense and aspect systems. It was anticipated, according to the patterns of development observed in the previous sessions, that their correct usage of each structure would substantially improve. However, other than the correct usage of simple progressive, this was not the case at all. In fact, the correct usage of past perfect and past perfect progressive was non-existent in the spontaneous speech. When morpho-syntax was used in session 2 to mark the present perfect, it was predicted that such correct usage would significantly improve in later sessions. Nonetheless, during the last session (session 4), the correct usage of such structure was extremely similar to that of session 2. The only notable development during session 4 was the emergence of a few correct usages of the present perfect progressive.

As a result of such insignificant improvement, their usage of devices other than morphological markers was almost the same as that of session 2 (see Figures 1-10 for the developmental patterns of the structures that were used in the spontaneous speech by all participants). This researcher mentioned that the emergence of the correct usage of the present perfect progressive structure coincided with the fact that both participants did well regarding this structure in the forced elicited task, not only in session 4, but also as early as session 2. Also, prior to the correct usage of present perfect in session 2, participant A did well in regard to this structure in the forced elicited task in session 1. This suggests that the performance in the forced elicited task may assist in predicting the patterns of correct usage in the spontaneous speech at a later stage. If this proved to be true, then our hypothesis regarding

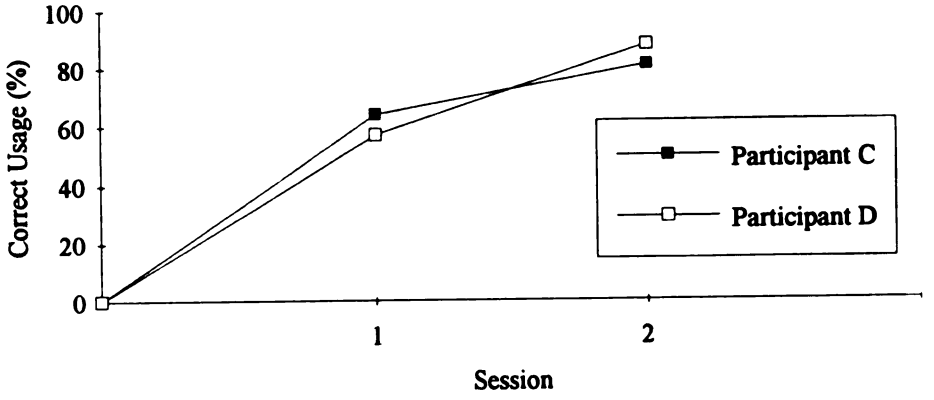

Figure 1. Correct usage of simple present tense by participants C and D.

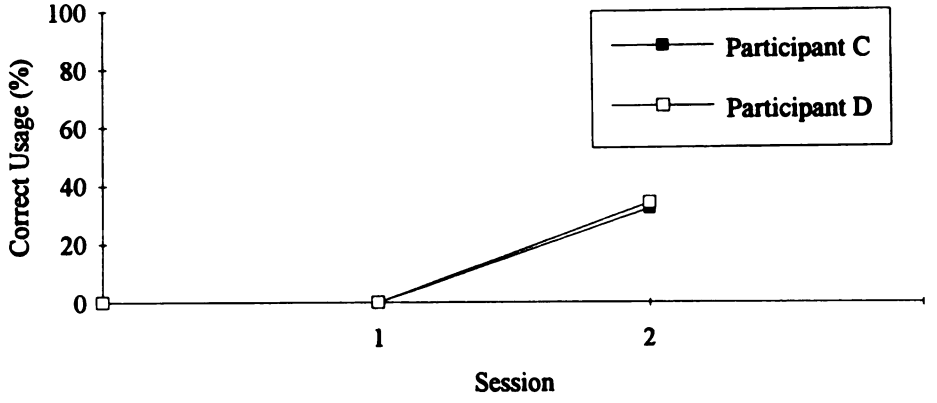

Figure 2. Correct usage of simple past tense by participants C and D.

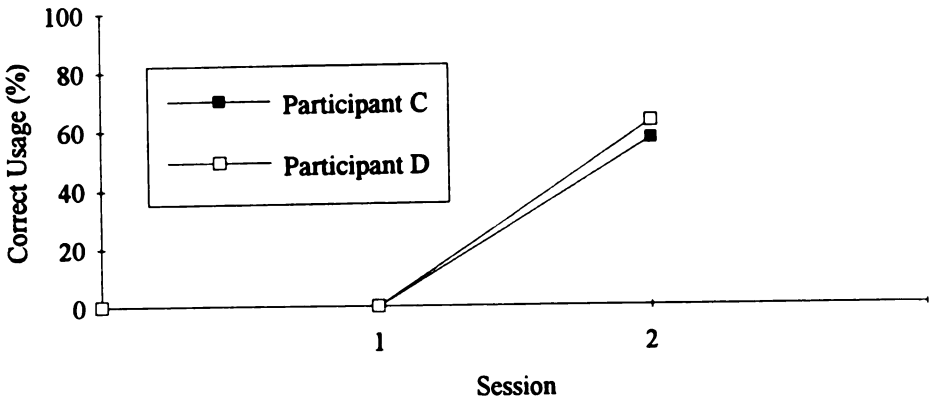

Figure 3. Correct usage of simple present progressive by participants C and D.

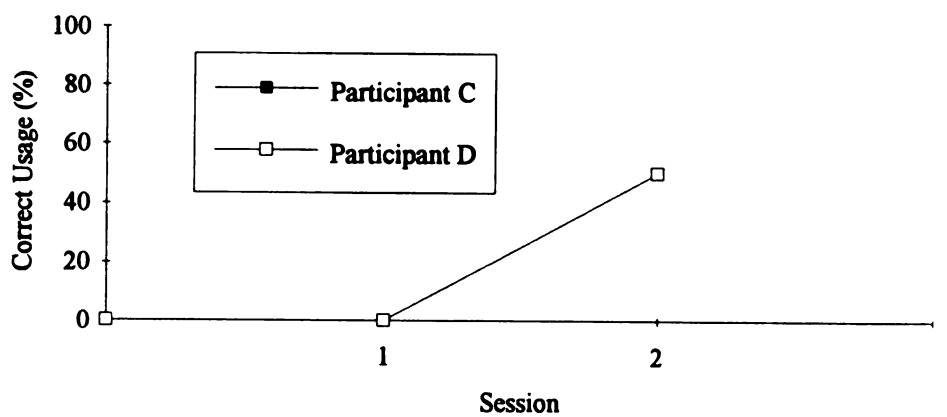

Figure 4. Correct usage of simple past progressive by participants C and D.

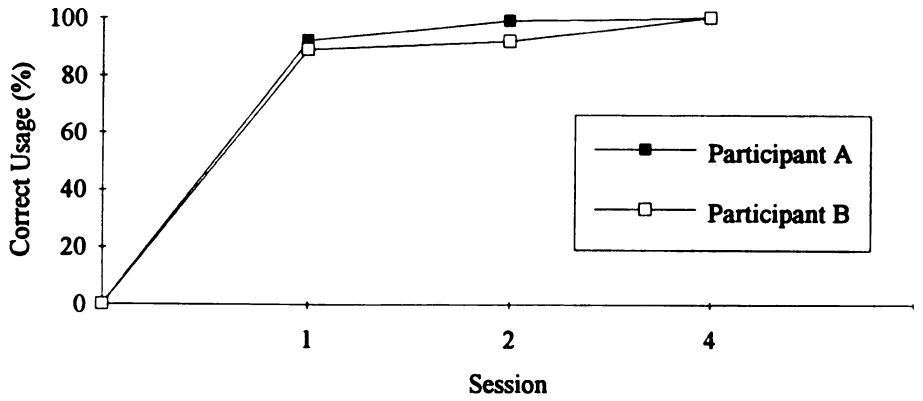

Figure 5. Correct usage of simple present tense by participants A and B.

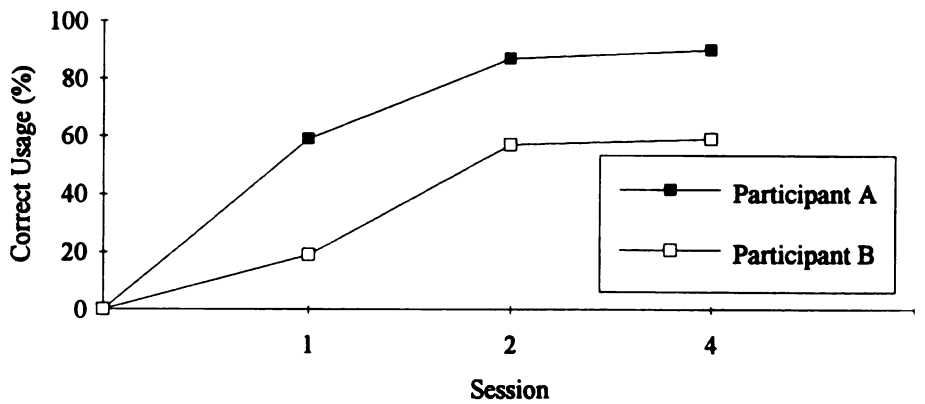

Figure 6. Correct usage of simple past tense by participants A and B.

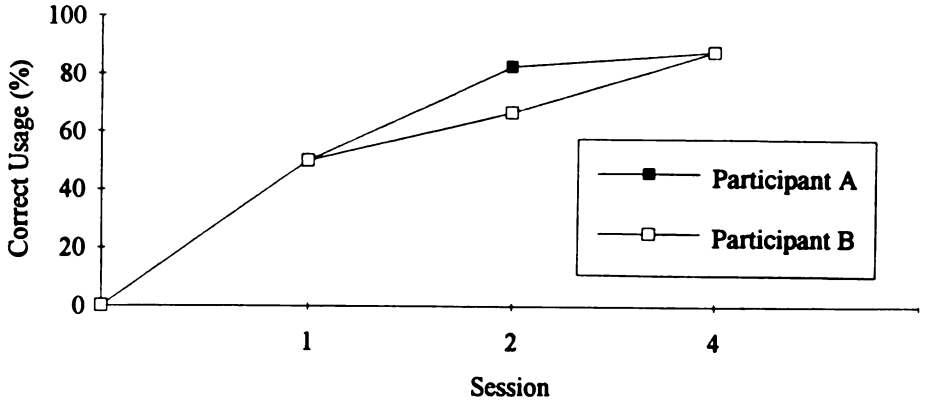

Figure 7. Correct usage of simple present progressive by participants A and B.

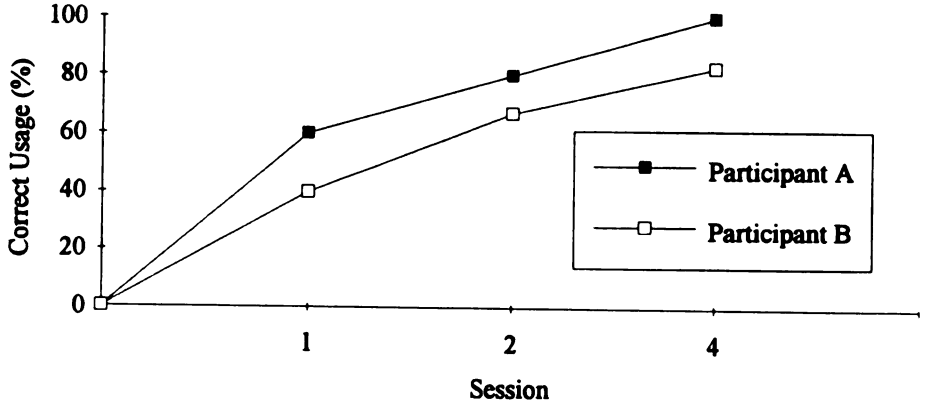

Figure 8. Correct usage of simple past progressive by participants A and B.

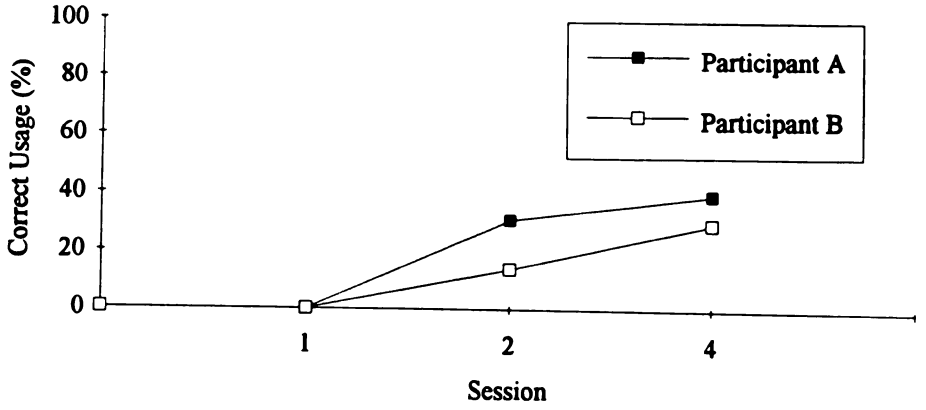

Figure 9. Correct usage of present perfect by participants A and B.

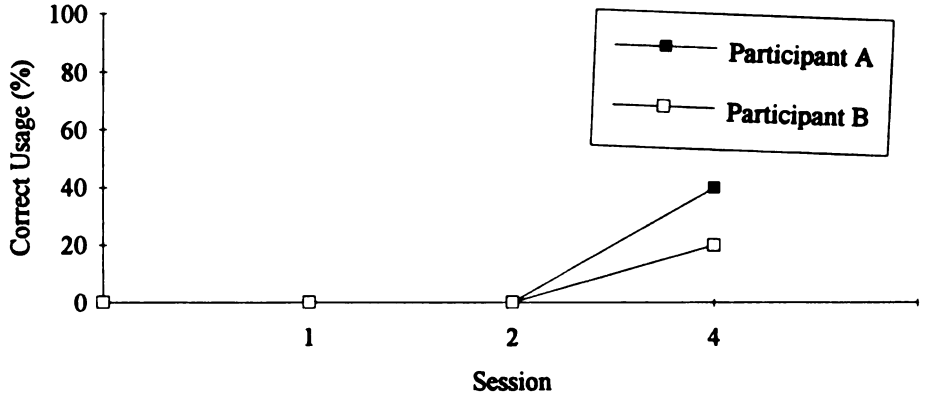

Figure 10. Correct usage of present perfect progressive by participants A and B.

"learning" (knowing) and "acquisition" (using) is validated. It was argued that learners can learn (know) certain rules--inflectional morphology that has to be used to convey present perfect, for instance--but they may not start to use them correctly in spontaneous speech until a later stage. However, if they were asked questions the answer to which required the use of such rules, they may be able under such forced elicitation to correctly use these rules.

It seems appropriate at this point to discuss the above overall results with respect to the issue of "rate of development" of the acquisition of the English temporality. Then, advantages of function-to-form analysis will be discussed.

Looking at the spontaneous data of all participants from an early stage to an advanced level revealed the following information. First, participants C and D had improved substantially from session 1 to session 2. Second, participants A and B had significantly improved from session 1 to session 2. Third, the rate of development seemed to have slowed down for participants A and B in the interval between sessions 2 and 4, especially in regard to the perfect structures. Why is it the case that participants A and B at a very advanced stage in the learning continuum expressed such patterns in regard to the perfect structures? And are these patterns followed by other learners of different language backgrounds or are they peculiar to Arabic learners? In other words, what was the role of L1 in the acquisitional process of the English tense and aspect? It was clear that participants did poorly in correctly using the morphological markers that convey the perfect structures. Arabic, the native language of the participants in this study, marks the perfective/imperfective distinction. It has what is called Mādī, or past, and Mūdāri, or non-past (Kaye, 1987).

Unlike English, Arabic does not mark the progressive and perfect distinction. If L1 were to play a role in the acquisitional process of temporality in this study, one would expect the participants to face difficulties in acquiring the perfect and progressive since the English, but not Arabic, language grammatically marks these distinctions. At first glance, it seems that transfer from L1 did take place since the participants did poorly in correctly using the perfect structures. Nonetheless, deep scrutiny into the developmental patterns indicated that participants A and B did extremely well in correctly using the morpho-syntax to convey the simple progressive--present and past. Since Arabic does not grammatically mark both the perfect and progressive and since participants did well in correctly conveying the latter, it may be plausible to assume that they were following a natural developmental order, and that L1 may have played only a minor role.

Or perhaps transfer from L1 did take place, and that the high percentage of correct usage in regard to the simple progressive structures was due to other factors. One, probably the verbs with which the simple progressive was used were lexically durative. Such factors may have enhanced the correct usage of such structures. Such a phenomenon was observed by Bardovi-Harlig (1992a). Second, it could be the case that the simple progressive structures were used frequently in the input to which the subjects were exposed. If one or both factors were proven to be true, then transfer from L1 did take place. In any event, determination of transfer from L1 to L2 is a very sophisticated process.

According to Gass (1979), for one to determine that a linguistic phenomenon was transferred from L1 to L2, one should not look at only target language and native

language factors, one should also take into account language universals. In order for one to determine the transferability of L1 patterns and claim that L1 of the subjects of this study played a role in the acquisitional process of the English tense and aspect, a similar study with different learners whose L1, like English, marks the progressive and aspect, may be conducted. If those learners show similar patterns to those of the participants in this study, this would indicate that L2 learners follow similar developmental stages regardless of language background, and the L1 factors play only a minor role in the acquisitional process. If, however, those learners differ in a statistically significant way from the participants of this study in their correct usage of the progressive and perfect, then this could be evidence of language transfer.

Aside from the role of transfer from L1 which, at least at this point, is not clear, what justifies the participants' poor performance regarding the perfect structures? This writer is offering the following speculations. First, in regard to the delayed emergence of past perfect and past perfect progressive in the spontaneous speech, he suspects that this was due to two interrelated factors. One, it is grammatically correct to use the simple past instead of past perfect and some native speakers do so. Second, these two structures are rarely used even by native speakers. This claim is supported by the fact that participants A and B showed knowledge of these two structures in their responses to the questions in the forced elicited task. It was mentioned earlier that the emergence of present perfect and present perfect progressive in the spontaneous speech was preceded by the participants responding well to the questions regarding these two structures. In this case, both participants, especially

A, responded fairly well to the past perfect questions, but they never used past perfect and past perfect progressive in their spontaneous speech.

Second, in regard to the poor performance of the perfect structures in general, it seems reasonable to assume that participants may have felt that they were not obligated to strictly use every grammatical rule they knew as long as their conversation was understandable. In other words, their first priority when they conversed was to get the message across without worrying a great deal about the morpho-syntax that had to be used. Another possibility is that the input to which the participants were exposed did not include a great deal of usage of the perfect structures. Or perhaps it takes a long time, longer than the time this project lasted, for the perfect structures to be fully grammaticized and hence used on a regular basis in the spontaneous speech of learners.

Regardless of the observed setback in interlanguage development at later stages, the overall observations of the developmental processes in interlanguage systems in this study clearly showed the importance and advantages of function-to-form analysis. Within the traditional framework of counting the appearance versus non-appearance of merely grammatical forms, a great deal of information regarding interlanguage development and strategies learners use would have definitely been missed. Without function-to-form analysis, this researcher would not have been able to show the manner in which participants C and D expressed the English temporal notions in session 1. These two learners appeared to have no knowledge at all about the English inflectional morphology regarding tense and aspect during that early stage. Nevertheless, function-to-form analysis enabled this researcher to uncover the

compensation strategies that learners used in order to convey the English tense and aspect systems. This is not to say that function-to-form analysis was beneficial only at the early stages of interlanguage development. Instead, as this study has demonstrated, it was a useful tool throughout the study. It illustrated the different ways in which functions were expressed, and it assisted in discovering the strategies used by participants at any given stage.

What is truly appealing about function-to-form analysis is that it goes beyond the morpho-syntactic level. It integrates the morphological, syntactic, and phonological levels with one another on the one hand, and with discourse-pragmatic factors on the other hand, thus allowing a multi-level analysis capable of capturing almost every aspect in interlanguage development. Also, such analysis reveals a great deal about how learners communicate when they are almost linguistically handicapped.

Finally, it has been observed that the majority of researchers who used function-to-form analysis when investigating the acquisition of temporality did not include form-only analysis as a complementary analytic tool. Though this may not be a major drawback of such research, it is contended here that integration of the two types of analysis is necessary. This researcher implemented both types of analysis in this study, and it is obvious that form-only analysis played a major role in determining the developmental stages established in this project. Without form-only analysis, it would not have been possible to uncover that participants A and B had improved substantially from session 1 to session 2. By the same token, it would not have been established that the same participants had improved only slightly from session 2 to session 4. Therefore, it is argued that as useful of an analytic tool as

function-to-form analysis is, it should always be used along with form-only analysis in order to obtain a comprehensive and complete account of interlanguage development.

CHAPTER V: CONCLUSION

This project investigated the acquisition of the English tense and aspect (eight grammatical structures) in the English-based interlanguage of four adult native speakers of Arabic. The participants came to the United States to pursue their education. This study was conducted over an 18-month period. Two of the participants, C and D, were taped individually in two different sessions, 60 minutes each, within a 12-week period. The first taping session was done when they were at a very early stage and the second took place when they were at approximately intermediate level in the learning continuum. The other two participants, A and B, were taped individually four times, 60 minutes each, within a 10-month period. The first taping was conducted when they were at an approximately intermediate level, the second when they were at a pre-advanced level, and the third and fourth took place when they were at an advanced stage in learning English. This was done in order to be able to document the developmental process of the English temporality from the early stages until learners reach an advanced level. During each taping session with each participant, forced elicited data were obtained by the means of asking two questions in regard to every structure that was investigated.

After thorough analysis of the data using function-to-form and form-only analysis, the following concluding remarks are made:

1. At the very early stage (participants C and D in session 1), there was no use at all of inflectional morphology to mark tense and aspect.

2. As a result, participants used linguistic and non-linguistic devices to mark temporality. Adverbials, connectives, serialization, and implicit reference were the means by which temporality was inferred. Also, interlocutor scaffolding was such an important means by which temporality was inferred. During such scaffolded discourse, it was the interlocutor, not the learner, who established the point in time in which an event took place, and the learner merely confirmed such establishment.

3. During the next stage (participants C and D in session 2 and A and B in session 1), the participants used inflectional morphology, but such usage was not systematic and it did not display sufficient knowledge of the English grammatical rules regarding tense and aspect. In fact, they did not use any inflectional morphology that mark the perfect structures. Thus, they all used devices other than morphological markers to refer to temporal notions. At this intermediate stage, scaffolded discourse was not needed and participants were able to freely speak without any assistance from the listener.

4. In the next stage (participants A and B in session 2), the usage of inflectional morphology had significantly improved, but it was still not systematic enough to conform to that of native speakers or even fluent non-native speakers. At this pre-advanced stage, there were only a few instances of correct usage of the present perfect, and participants did not provide any correct usage of the past perfect or present progressive--present and past. As a result of such improvement, the usage of devices other than morphological markers decreased.

5. At a supposedly very advanced stage (participants A and B in session 4), the learners' correct usage of morphological markers to convey temporality had improved only slightly from the previous session. Other than the noticeable improvement in the correct usage of the simple past progressive and a few instances of correct usage of the present perfect progressive, the participants' performance at this advanced stage was similar to that at the intermediate level. This is interesting since a period of about 7 months had elapsed from the second to the fourth taping session. Because of such similarities, the participants' usage of devices other than inflectional morphology was at the same rate at this advanced stage as it was at the intermediate stage.

6. The structure that was used correctly the most by all participants was when they referred to regular or habitual events--simple present tense. No additional morphemes to the base form of the verb are required to convey this function. Thus, the correct usage of such structure may have been coincidental.

7. Relating events in the past--past perfect and past perfect progressive--turned out to be the most difficult function to be conveyed correctly. Participants A and B did not use these two structures correctly in their spontaneous speech even at the most advanced stage when they had been learning English for more than 16 months. It may be the case that a more sophisticated knowledge of the English inflectional system has to be acquired in order for this function to be used in spontaneous speech.

8. Reference to a single event in the past--simple past tense--was correctly conveyed by the supplement of lexical (irregular) forms of the verb much more than by the regular past tense marker "ed."

9. Generally speaking, the participants' correct usage of the eight structures in the forced elicited task was higher than that in the spontaneous speech. This factor may support the claim of this writer that learners may know the grammatical rules, but may not necessarily use them in their spontaneous speech.

The above-cited remarks are a complete documentation of the evolution of the tense and aspect in the English-based interlanguage of four adult Arabic speakers. It shows clearly how learners, at the early stages, struggled to convey functions in a new language where they did not know any grammatical rules, and they had only a limited number of lexical items with which to work. In such circumstances, they were able to compensate for their lack of sufficient knowledge of the grammatical rules by using different kinds of devices and by employing interesting strategies, and eventually were able to overcome their deficiency and communicate in an understandable manner. It was interesting to observe the developmental process of the expression of the English temporality through time.

It was apparent that the rate of development in the interlanguage systems of participants A and B had slowed down at the advanced stage in regard to the correct usage of the English perfect structures. In this regard, it was not clear what the role of transfer from L1 was. Thus, alternative explanations were offered in an attempt to justify the participants' poor performance regarding these structures.

All in all, the results of this study are a clear demonstration of the advantages of functional analysis in the study of language development. It is such analysis that unveiled a great deal of valuable information about how temporality had developed over time, and how learners strove to overcome obstacles and communicate in a new language. It is this type of analysis that clearly showed the learners' movement from relying solely on the contextual information to establish temporality to the point where they were able to successfully use some inflectional morphology to refer to temporal notions. It is functional analysis that showed how important discourse-pragmatic information was in the early stages of language development. The results of this study demonstrate how such information was profoundly useful in the sense that they compensated for a lack of sufficient knowledge of the English inflectional morphology. The ultimate advantage of functional analysis is derived from the fact that it integrates all linguistic levels along with discourse-pragmatic factors. Hence, it allows a complete and comprehensive account of interlanguage development at any given stage. The data of participants C and D in session 1, which contained no correct usage of inflectional morphology at all, would have revealed little information about interlanguage development had this researcher used "form only" analysis or even "form-to-function" analysis. These two types of analyses would reveal that these two learners had not yet acquired the English tense and aspect. Such conclusions, as correct as they are, would overshadow the true process in language development. True process in this context refers to the various strategies that learners use in order to overcome their deficiency in the target language. Such true process is captured by the use of function-to-form analysis that takes into consideration not only the supple-

ment versus non-supplement of linguistic forms, but also all kinds of devices that are used to convey functions, thus providing a comprehensive account of all aspects of interlanguage development.

At this point, it is important to discuss the issue of generalizability--differently put, how generalizable the observed developmental patterns established in this study are. The answer may be obtained if future research using functional analysis shows that English learners of different language backgrounds whose languages, like English, grammatically mark the perfect and progressive distinctions, follow similar developmental patterns as those observed in this study. If this were the case, it would be a strong indication that learners, regardless of language background, employ a general operating principle throughout the acquisitional process of the English tense and aspect systems.

In addition, it has been argued throughout this study that a learner may learn (know) certain morphemes that have to be used in order to convey certain functions, but not necessarily use them in spontaneous conversation until a later stage. Such argument was strengthened by the fact that learners' correct usage of the grammatical rules in the forced elicited task in this study was higher than that of the spontaneous speech. It was claimed that such phenomena may indicate that the participants knew these rules, but yet either did not use them at all or used them to a lesser extent in the spontaneous speech.

Though the observations of the participants of this study lasted for more than a year, and function-to-form analysis was used to analyze the spontaneous data, it is not without limitations. First, as mentioned earlier, the participants did poorly in regard

to correctly using the perfect structures. In fact, past perfect and past perfect progressive were not used correctly at all in the spontaneous speech even at the advanced stage. Probably a longer period of time, perhaps 2 years of observations, will be sufficient to allow a more comprehensive account of interlanguage development. Second, in each taping session, there were only a few instances where certain structures had to be used in the spontaneous speech. These structures include the present perfect progressive, past perfect progressive, and even the simple progressive--present and past. Maybe longer taping sessions would have allowed a greater number of instances where such structures would have to be used. For instance, if there were five instances in which the present perfect progressive was required in a 60-minute session in this study, there might be 10 instances where such structures would be required in a 120-minute session. Such a number, though not high enough, would, without a doubt, allow a more valid judgement of the learners' knowledge of this structure. Such limitations must be taken into consideration prior to conducting a similar work.

Hence, what probably is needed is a cross-linguistic study of the acquisition of the English temporality. Such a study should incorporate both "function-to-form" and "form-only" analysis. Participants of this study should include learners whose first language does not mark the perfect and progressive distinction (Arabic, for instance) and those whose first language does grammatically mark these distinctions (Spanish, for example). Observations of the participants in this suggested study should last for at least 18 months, starting when the participants are at the very early stage in the learning continuum. Each taping session of each participant should be at least 2 hours

long, and the interval between taping sessions should be around 3 to 4 months. Such a project would undoubtedly unveil a great deal about the developmental processes of the acquisition of the English temporality. It may also solve many methodological problems concerning the issues of "transfer" and "generalizability." It has already been shown how sophisticated it is to determine transferability from L1 to L2. Only a cross-linguistic study such as that suggested above will assist in not only solving such issues, but will also be much more generalizable.

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