Second Language Acquisition of Aspect and Tense by Saudi-Arabic Learners of English

Ruwayshid Alruwaili

DOCTOR OF PHILOSOPHY

University of York

Language and Linguistic Science

May, 2014

Abstract

This study investigates the influence of first language (L1) grammar on the acquisition of temporal and aspectual distinctions in second language (L2) English at different proficiency levels and in different learning settings. Specifically, the study examines interpretations of aspectual and temporal contrasts by Saudi-Arabic learners of English. The two languages share the same underlying representations involving formal syntactic features, but they are different in the morphological configurations that determine which aspectual/temporal meaning is selected.

 Two different tasks were administered to three learning groups: an acceptability judgment task and a gap-filling task. The learning groups were classified according to learning context (classroom vs. immersion) and performance on a cloze test. The findings revealed that Saudi-Arabic learners of English were able to establish the aspectual contrast between the habitual and progressive and produce these forms to a target-like level. However, they were unable to establish the temporal contrast between the preterite and present perfect. The investigation revealed that the learners' behaviour on the preterite vs. present perfect contrast was constrained by their L1 grammar.

Theoretical implications of these findings are that uninterpretable features are retrievable from universal inventory contra the Interpretability Hypothesis (Hawkins et al. 2008). Besides, the Aspect Hypothesis, which claims that verbal morphology is influenced by lexical aspect, the findings show that it is less likely to predict the route of L2 acquisition of tense and aspect distinctions at a later stage (Andersen & Shirai 1996). However, the results suggest that the Feature Reassembly can accommodate and predict the observed disparity in the performance of Saudi speakers (Lardiere 2008). As for pedagogical implications, the findings suggest that L2 learners follow a similar developmental route regardless of learning context, and explicit instruction does not necessarily guarantee acquisition.

The overall conclusion is that L1 grammar might be deterministic in establishing the target-like interpretation, especially when other factors such as input come in play. Therefore, the approach to L2 acquisition should not only consider properties of L1 grammar but also the role of L2 input and the interaction between them in the course of development.

بِسْمِ اللهِ الرَّحْمَنِ الرَّحِيمِ

وَقُل رَّبِّ زِدْنِي عِلْمًا

سورة طه   (114)

"O my Lord, increase me in knowledge"

Dedication

This thesis is dedicated

to the memory of my father, Nafea Alruwaili

who passed away during the process of my

PhD. I miss you every day, but I am

glad to know that you will be

happy to know that I have

finished this work

To my mother

This poem for you

الى من اذا رايتها كنت افضلْ

وأذا سمعت اسمها اثمل

الى من في عيونها يسكن الامل

وفي قلبها استوطن هذا الرجل

الى امي الغالية

اهديك القبلة الاولى

To my brothers and sisters

Thank you all

You are the jewel of my life

Acknowledgment

There are numerous people who helped to make this thesis possible. I owe the greatest thanks to my supervisor Heather Marsden. Without her guidance and continuous support, I would not have completed this work. I have greatly benefitted from her insights and questions. Besides, I have truly enjoyed working with her on this project. I am also grateful to my committee member Tamar Keren-Portnoy. She has been an invaluable source of encouragement and support. She has been so helpful in statistical consultations and her remarks have always resulted in fruitful suggestions. I also want to express my appreciation to my supervisory board, Bernadette Plunkett and George Tsoulas for all their effort. I want to thank all the people in department for the courses, discussion groups, and workshops that I attended. My sincere gratitude goes to Martha, postgraduate coordinator, for her assistance in organizing departmental paper work.

I also owe very special thanks to my fellow graduate students, Sami Alresaini, Ghazi Algethami, Rana Almbark, Abdulaziz Alarifi, Abdulkareem Yassen, Dima Almalahmeh, Rebeeca Woods, Parastou Marvasti, and Man-Ki Theodora for helping me in every aspect of the project. A Special warm thank also goes to my friend Ahmad Albahar for all his moral support and in narrating poetry every time we meet In Burrick Saul building in the morning. He always made my day special.

In the world outside of linguistics, I am also indebted to all of my friends in Leeds and York for their sincere advice and guidance. They were with me in hard time and we shared joy together. They gave me amazing support, love, and encouragement. I am really indebted to them. They are as follows: Omeir Alenezi, Farhan Alenezi, Abdulrhman Alenezi, Ghanem Alenezi, Abdulaziz Alenezi, Muflih Alhazmi, Osmah

Author's Declaration

This thesis has not previously been accepted for any degree and is not being concurrently submitted in candidature for any degree other than Doctor of Philosophy of the University of York. This thesis is the result of my own investigations, except where otherwise stated. Explicit references acknowledge any other sources used in this thesis. I declare that part of the results of my thesis was presented in these conferences:

5th Saudi International Conference -SIC05 (2011) at Warwick University

Postgraduate Presentation Day Workshop (2012) at York University

MFIL- Manchester Forum in Linguistics (2013) at Manchester University

ShefLingPG- Postgraduate Conference in Linguistics (2014) at Sheffield University

8th Saudi International Conference -SIC08 (2014) at Edinburgh University

Parlay-Postgraduate and Academic Researchers in Linguistics (2014) at University of York

I hereby give consent for my thesis, if accepted, to be made available for photocopying and for inter-library loan, and for the title and summary to be made available to outside organisations.

Table of Contents

List of Figures

xv

xvii

List of Tables

xx

"To have a second language is to have a second soul"

Roman Emperor Charlemagne

Introduction

1.1 Introduction

This study examines the acquisition of aspectual and temporal distinctions in English by Saudi-Arabic speakers within different levels of proficiency and in different types of learning settings. In particular, the study aims to investigate the role of first language (L1) within the domain of aspectual and temporal acquisition. Therefore, the central goal of this thesis is to examine the effect of L1 and how it might last at the syntactic-semantic interpretive interface. In respect of Second Language (L2), can L2 learners establish target-like interpretations and assign them to their related structures? The L2 task then is not only the acquisition of the overt morphosyntactic forms, but also the acquisition of related assigned semantic values: if they cannot do this, what stops or impedes them from achieving full native-like mastery? Ultimately, the goal of this thesis is to answer the following two key questions:

1. What is the effect of the L1 aspectual and temporal system on the acquisition of the semantic distinctions in the L2?

2. What are the roles of proficiency level, learning context, task type, and predicate type on the acquisition of the semantic distinctions in the L2?

The outcome of First Language Acquisition (FLA) is always a success. By contrast, the Acquisition of Second Language (SLA) results in different degrees of success. This contrast has led some researchers to question the pattern of development in SLA and whether it is similar to or different from FLA (Bley-Vroman 1990) .However, taking into account the difference between linguistic competence and performance, other researchers do not view this

contrast as an indication that learners' linguistic competence might be different from native speakers. The last point is important. Literature about SLA has claimed that the source of this divergence might result from performance limitations, rather than being the result of deviant linguistic competence. In other words, difficulties stem from the peripheral components of the language faculty (Lardiere 2000). It has been also assumed that the properties of L1 might contribute to the kind of divergence or difficulties faced by L2 learners (Coppieters 1987; Hawkins & Chan 1997).

It is generally assumed in SLA research that the departure point for acquiring L2 is a learner's native language. This assumption is explicitly articulated in the initial and early stages of development (Schwartz & Sprouse 1996,1994; White 2003b). L2 learners would initially approach L2 grammar via L1, predicting a greater transfer of L1 grammar at the initial stages (Schwartz & Sprouse 1996,1994). This is known as the Full Transfer/Full Access (FTFA) Hypothesis. However; this hypothesis about L1 influence is based on contrastive analysis of resetting parametric variations from those of the native language to those of the target L2. The assumption is that when both languages are similar with regards to a particular parameter, acquisition will proceed with relative ease, but when both languages are different this may hinder the acquisition process. Therefore, failure to achieve native-like proficiency is seen as an inability to reset the parameters of target L2 from those of L1 (Lardiere 2007b:205).

This kind of research has been the focus of SLA research, especially in the syntactic domain; and less attention has been paid to how syntactic knowledge might interact with the other components of grammar. However, a growing body of SLA research has shifted inquiry within the framework of Universal Grammar (UG) from focusing mainly on syntactic knowledge to the acquisition of the semantic values of L2. The investigation of the types of

meanings that L2 learners attribute to certain constructions in the target language is taken as an indication of the underlying representations that L2 learners construct in their Interlanguage Grammar (ILG). In addition, it can reveal what impedes learners from fully mastering L2 meanings and interpretations.

The argument goes that UG should govern and guide the mapping between syntactic structures and semantic interpretations in the development of ILG. This has led a number of authors to propose that an inability to reach a native-like proficiency can be explained in terms of difficulties in integrating linguistic phenomena relevant to certain interfaces (see Sorace & Serratrice 2009; Montrul 2011; White 2011a).

1.2 Interfaces in SLA

The grammatical theory provides a model of the unconscious knowledge that native speakers possess (Chomsky 1993). This knowledge is assumed to be mentally represented by means of an abstract linguistic system consisting of different modules such as syntax, phonology, and semantics (White 2009a). Grammatical theory is theoretically grounded in FLA, particularly in the case of the logical problem of language acquisition (Hornstein & Lightfoot 1981).

In terms of L2 acquisition, the grammatical theory assumes that the ILG may also involve unconscious representations. Therefore, SLA literature has been dominated by studies investigating UG accessibility and parameter resetting during the 1970s and 1980s. The argument goes if L2 learners show unconscious knowledge of the target language which cannot be derived from the L1 or from L2 input, this can be taken as an indication of UG operation in SLA (White 2009a).

However, there has been a shift - as previously stated - from questions about UG accessibility into more demanding domains of interactions and integrations. In recent research on L2

acquisition, there has been more emphasis on how the internal components of grammar interact with each other, for example, syntax/semantics or external components such as syntax/discourse. The recent view is that linguistic properties at these interfaces are more complex than domain- specific linguistic properties such as syntax or phonology. This involves the integration of different levels of linguistic knowledge in the development of L2. This integration has been linked to the inability of L2 learners to reach native-like proficiency in certain properties of L2 grammar (White 2011a;Slabakova 2008; Montrul 2011). L2 failure to reach fully native-like L2 grammar can be attributed to difficulties of integration at the interfaces; and this is an area where cross-linguistic influence might be persistent (White 2009a:50).

The distinction between "internal" and "external" interfaces was discussed by Chomsky (1995,1993) in terms of levels of representations; the internal interface is the mapping between the deep structure and the surface structure whereas the external interface is the interaction between the PF (phonetic form) and LF (logical form). The discussion of interfaces has been linked to the architecture of language faculty. According to White (2009a), internal interfaces can link linguistic components within the language system itself such as morphology/syntax while the external interfaces link the linguistic components with world knowledge and cognition such as syntax/pragmatics. In L2 terms, interfaces are viewed as interactions or mappings between linguistic modules and representations. Whenever there is a mapping between two or more different components, an interface between them is necessarily implicated (White 2011a). For example, the syntax of a sentence is mapped onto its related semantics. Ultimately, every sentence uttered must be read off at all linguistics interfaces. Therefore, L2 learners do not need to acquire the interface itself since these levels of representations are part of the grammatical faculty (UG), but they need to acquire

knowledge about how to represent the specific properties of particular structures at a particular interface (Slabakova 2008). Under this conception, the reported difficulties L2 learners encounter and their failure to reach near-native proficiency are likely to be associated with difficulties at interfaces (Sorace 2005; Lardiere 2008; Goad & White 2006).

1.3 Syntax-Semantic Interface

If L2 learners reset or acquire the featural composition of a particular functional category, they should show knowledge of the semantic reflexes associated with that category. Slabakova (2010:235) pointed out that when learning an L2, a speaker is confronted with different mappings between units of meaning and units of morphosyntactic structure. The task for L2 learners then is to show semantic interpretive knowledge alongside morphosyntactic knowledge. In other words, the learning task for L2 speakers is to figure out how the mapping between form and meaning is encoded.

Cross-linguistically, there are variations on how a functional meaning might be represented. A functional meaning represented on a piece of morphology in L1 might be encoded in another piece of morphology in L2 or on another lexical category in L2 (based on Lardiere 2000,2008,2006). Accordingly, if there is a mismatch between L1 and L2 regarding form-meaning mappings (in syntax-semantic interface), functional morphology and its mappings in L2 might represent a challenge for L2 learners not only at earlier stages of acquisition but also at later stages. Therefore, the task of the L2 learner is ideally to acquire the semantic features not instantiated in L1 and associate these features with its related piece of morphology.

Building on this posture and the recent developments in SLA, consider the difference between the following examples when calculating the sentential meaning:

3. Sami *plays* football.

4. Sami *play**ed*** football.

The two sentences are exactly the same in terms of the lexical items (*Sami, football*), but they differ in the verbal forms which encode grammatical difference. In the first sentence, a present habitual (but not on-going) event is encoded by the grammatical expression *–s,* while the second one encodes either a past completed event or a past habitual event in the past tense morphology *–ed*. The context or the conjunction with other clause (*Sami played football when he was a kid)* is going to disambiguate the meaning in (4). Thus, it is more challenging for L2 learners when there is a lack of explicit markings for each semantic meaning in the input. In other words, the semantic values are not morphologically distinguished as in the case of Spanish imperfective markings when acquired by English speakers (see Montrul & Slabakova 2002). L2 Learners will encounter arguably great challenges in establishing the target interpretations and producing the target forms. Crucially, these challenges might be vulnerable to L1 transfer.

1.4 Motivation for the Study

Three personal incidents stimulated the interest in the present study: struggling learning experience; investigation of textbooks; and teaching experience. The first incident refers to the researcher's personal struggle with learning the target-like aspectual and temporal distinction such as *v-ed/have+v-en*. In the second incident, the researcher observed that the textbooks used in teaching English present the distinction in a typical common pattern and do not draw learners' attention to the effect of L1 grammar. In the third incident, the opportunity to teach English allowed the researcher to observe the difficulty and type of errors made by Saudi-Arabic speakers. The errors were reminiscent of L1 effects. Particularly, learners were seen to frequently overgeneralise the present tense in the context of progressive or vice versa.

Similarly, the overgeneralisation of the temporal preterite form in the present perfect context was also frequently observed.

Saudi-Arabic learners of English are not different from other L2 learners in facing difficulties with tense /aspect morphology and their distinction. It is well attested that tense/aspect morphology is one of the most divergent properties in the ILG of L2 learners compared with others properties such as pronoun case (see Dulay & Burt 1974; Bailey et al. 1974; Coppieters 1987; Lardiere 1998a; Ionin & Wexler 2002). In fact, Kharma & Hajjaj (1997) stated that the relationship between the tense-aspect systems of these two languages is the locus of much awkwardness, and observed even at the advanced levels. Therefore, the focus will be on aspectual distinction *v-s, v-ed/be+v-ing* and the temporal distinction *v-ed/ have+v-en*. The investigation will attempt to examine whether form-meaning mappings which are different in L1 grammar are acquirable by Saudi-Arabic learners of English at different levels of proficiency and learning settings. Computing native-like interpretations or assigning target-like mappings to grammatical forms at the interface is assumed to be more challenging particularly in the case of L1 /L2 mismatches at this interface (Slabakova 2008,2010; Sorace & Serratrice 2009). Moreover, learning in typical classrooms - in this case in the classrooms in Saudi Arabia - might lead to the inability to achieve target-like interpretations.

Therefore, the question that arises in connection with recent generative perspective is whether L2 speakers can master and acquire native-like morphology with native-like interpretations. If not, what impedes and hinders them from achieving a native-like interpretation?

1.5 Why L2 Interpretations are Important

An issue that has been at the centre of SLA literature is the interpretations to be given to L2 speakers' speech or writing. White (2003b) conveys a comprehensive review of this

literature. The investigation examines mainly the use of morphosyntactic properties and their underlying knowledge (Lardiere 1998b; Haznedar 2001; Ionin & Wexler 2002). These studies have tended to focus on what interpretations should be given to these forms in the surface manifestation of L2 production. There has been a considerable emphasis on syntactic properties and whether overt performance reflects the underlying knowledge of associated grammatical properties. The results of these studies indicated that overt performance might be a poor reflection in relation to L2 competence. However, in recent research on L2 acquisition, there has been an emphasis on semantic consequences and what they potentially might reflect.

Hawkins (2009) pointed out that recent studies investigating learners' interpretations associated with functional category distinctions are heading in a promising direction of inquiry and are redirecting the focus from the syntactic to the semantic reflexes of functional categories.[1] Accordingly, studying L2 interpretations seems to be potentially more reflective of the nature of morphosyntactic knowledge. Therefore, examining L2 interpretations is of great significance.

L2 interpretations can tell us about the nature of initial, restructuring and even advanced states in relation to L2 competence. Hawkins (2009:222) indicated that the methodology that investigates the semantic consequences determined by morphosyntactic properties rather than asking the informants about their grammatical status is more revealing about the nature of initial state grammar. Therefore, the earliest learners' interpretations associated with functional categories can tell us more about their performance and underlying representation. In addition, it is more likely to reveal the restructuring in the developing state and the nature of steady state grammar.

---

[1] See also Slabakova (2003).

Furthermore, L2 interpretations can go beyond production data into L2 comprehension and provide us with insights about ILG (Slabakova 2002). L2 learners who supply L2 morphosyntactic forms in obligatory contexts might possibly have non-native-like interpretations. For example, Wagner (2001) presents examples and findings relating to children (L1 English). Therefore, L2 interpretations can provide converging and insightful evidence about L2 competence and performance. Such converging evidence can account for the puzzling findings in the previous studies with testable predictions about numerous accounts proposed in the literature. Specifically, this evidence can answer the question of how L2 learners come to establish and possess target meanings and use them in comprehension and production.

L2 interpretations can also tell us about L1 transfer and the effects of a learner's native language. The acquisition of meaning is arguably the most challenging and important task for L2 learners (Coppieters 1987; Bardovi-Harlig 2000; Montrul and Slabakova 2002). Thus, the effect of L1 properties on his/her acquisition of semantic interpretations in L2 is probably not trivial. In acquiring meaning, a L2 speaker is confronted with the task of acquiring an interpretive mismatch at the L1-L2 syntax-semantics interface and detecting the subtle contrasts in meanings (Slabakova 2010). For example, Coppieters (1987) pointed out that L2 near-natives selected impressionistically by native French-speaking colleagues/students who might appear to have mastered L2 syntax, in fact have difficulties with the semantic differences between the grammatical forms in French and the deviant intuitions which came from speakers whose L1 lacks the distinction of past-imperfect contrast like English.[2] Therefore, L2 learners who have attained end-state grammar might still have L1 influence in their use of some properties of L2 (see Sorace 2003).

---

[2] The study is criticised on methodological grounds by Birdsong (1992).

Finally, most of the cross-linguistic variations in meanings are found at the lexicon-syntax and syntax-semantics interfaces, and it is theoretically appealing for L2 researchers to investigate which part of the meaning is parameterised and which comes freely from unconscious knowledge (UG) (Slabakova 2011). L2 researchers are interested in how L2 learners understand and convey meaning in L2, and what resources are available to them on the road to meaning. In addition, this has the potential to contribute meaningfully to the debate about language teaching (see Slabakova 2008). Therefore, the body of research on L2 meanings and interpretations can provide and support more explanatory models for L2 acquisition theoretically and practically by supporting or refuting the findings of different approaches.

In conclusion, investigating L2 interpretations is of great significance. Building on this position and the recent developments in SLA (in terms of interfaces), the present study is going to extend this line of inquiry by focusing on the acquisition of the interpretations of aspectual and temporal markings in L2.

1.6 The Significance of the Study

Recently, several attempts have been made to target the interface between temporal and aspectual forms and their semantic interpretations in L2 (Slabakova 2000; Montrul and Slabakova 2002; Gabriele et al. 2003; Gabriele 2005; Hawkins et al. 2008). However, this study is going to include Arabic, a language that has not been heavily investigated in these studies. Arabic has aspectual and temporal distinctions that differ from English and it is crucially important for L2 learners to move from one way of representing this contrast into another different way in L2. Hence, the present study is different from the previous studies and it manifests its significance in a number of theoretically and practically aspects.

First, the study is going to examine both knowledge of production and comprehension in order to arrive at converging evidence with regard to L2 speakers acquiring knowledge of tense and aspect. Researchers have collected a massive body of data relating to superficial production; nevertheless, L2 learners may have a difficulty with semantic interpretation even though their superficial performance seems native-like (Montrul & Slabakova 2002; Coppieters 1987). Hence, this study manifests its significance in methodology by considering the nature of the tasks and the different levels of development.

The second aspect that distinguishes this study is its inclusion of Arabic (L1) a language that has not received sufficient attention in this domain. Arabic lacks one-to one correspondence of the aspectual and temporal contrast at the syntactic-semantic interface whereas it is morphologically grammaticalised in English. Therefore, Saudi-Arabic learners of English need to restructure their grammar from one way of representing the aspectual and temporal contrasts and establish corresponding contrasts in L2. In addition, the study is going to look at two possible constructions that are different in English and Saudi Arabic unlike the previous studies where attention was paid mainly to the progressive construction cross-linguistically (Gabriele et al. 2003; Gabriele 2005; Hawkins et al. 2008; Yamazaki-Hasegawa 2009). Accordingly, the significance of this study lies in its examination and detection of the acquisition of two different constructions because it is somehow more informative and insightful to explain why one construction is more difficult than the other in relation to the L1 issue. Moreover, building on previous results from the research literature, investigation of the semantic knowledge of learners from a different L1 acquiring the same L2 can provide a comprehensive picture of how the issue of L1 transfer is involved in the acquisition of aspect and tense in SLA. Given the descriptive facts, Saudi Arabic, unlike Chinese and Japanese, is similar to English in terms of the availability of the relevant features in question but the

difference lies in the morphological realisation. Accordingly, the findings will contribute heavily and meaningfully to the theoretical discussion of the issue of L1 transfer and L2 difficulties at the interface level.

This study manifests its significance theoretically in terms of its methodology. It has the potential of contributing meaningfully to the theoretical discussion advanced by more comparative studies of different learners' L1. Therefore, much more precise predictions and questions about L2 development can be formulated if the findings from different studies and this study are taken into account.

On the other hand, this study does make pedagogical contributions to the field of EFL. It includes classroom participants and provides pedagogical implications for teaching aspect and tense morphology in EFL classrooms. The classroom setting is characterised as being restricted and unlike naturalistic or immersion settings. Therefore, it is interesting to see how classroom learners who are instructed come to possess meanings in L2 and acquire the contrasts and their related interpretations in this restricted setting compared to naturalistic learners. Crucial to this point is meaning. After all, meaning is what enables us to convey thoughts in L2 in the same way as you do in your mother tongue.

Classroom input is typically restricted in contrast to input in naturalistic learning contexts in terms of the source of input either from teacher-limited talk or materials (Gass & Selinker 2008:369). This type of setting is assumed to lack transparency of from-meaning mapping. Collins (2007) argued that L2 classroom learners can supply (form) productively, but learning challenges come from understanding meaning and use. However, the nature of classroom instruction is a greater focus on the grammatical forms, isolation of grammatical forms and structures and more practice of usage rules (Pica 1975). Therefore, the learning challenge for L2 classroom learners is to integrate these grammatical forms with native-like

interpretations. One observation of EFL classrooms is that areas where more integration is required (like tense and aspect) pose more difficulty for L2 classroom learners (Kharma & Hajjaj 1997; Pica 1975; Slabakova 2008; Gass & Selinker 2008). Crucially, these conditions that require integration of syntax-semantic/pragmatic/phonology interface are underdetermined by the input and are not amenable to classroom instruction (Sorace 2003). The findings of this study draw attention to the acquisition problems related to aspect and tense. The study can contribute to more pedagogical findings by explaining why certain properties are acquired with ease and others with a lot of difficulty. L2 acquisition research has, indeed, turned its attention to subtle phenomena that are not taught in classrooms and that language teachers have no explicit instruction about (see Slabakova 2008,2003).

Kharma & Hajjaj (1997:157) pointed out that the main problem facing Arabic-speaking learners of English in dealing with the English verbal system occurs in the mismatches and overlaps between the two systems. This kind of mismatch is what Kharma & Hajjaj (1997) claim to be the source of the most serious mistakes in English among Arabic-speaking learners not only on a theoretical contrastive basis but also by empirical evidence. Accordingly, temporal and aspectual systems deserve special treatment inside classrooms even though there are other syntactic areas in English which are problematic to Arabic-speaking learners of English like articles and prepositions (Kharma & Hajjaj 1997). The significance is derived from the fact that these areas (prepositions and articles) might not hinder or impair the communication to a great extent, and not every English sentence requires them while the case with verbs is serious: mistakes with their use and interpretation are more serious at the interpretive and communicational level (Kharma & Hajjaj 1997).

Having surveyed the significance of the study and its implications, it is possible to formulate precise research questions taking into account the properties of first language and the different between the first and second language.

1.7 Research Questions

The present study sets to investigate how the native language of adult Arabic-speaking L2 learners of English influences the acquisition of the semantic interpretations encoded in the grammatical markers in L2. Based on relevant research literature and background, the following questions are formulated in As and hypothesised in Bs: [3]

5.

    a. What is the effect of L1 aspectual and temporal system (Saudi Arabic) on the acquisition of the semantic distinctions in L2?

    b. It is hypothesised that Saudi-Arabic learners of English will have no difficulty in associating aspectual and temporal meanings to forms and distinguishing the semantic contrast in both v-*s, v-ed / be+v-ing and v-ed/ have+v-en* .

6.

    a. Will the lexical type (predicate type) have an effect on the acquisition of grammatical aspect as identified by morphological markers such as *–ing*?

    b. It is hypothesised that Saudi speakers will establish aspectual and temporal distinctions on the basis of underlying syntactic operations and not on the basis of lexical aspect.

7.

---

[3] The structure of the discussion chapter is mainly based on these questions.

c. Is there a differential behaviour between comprehension and production tasks of L2 temporal and aspectual forms? Or is there a relationship between knowledge of written production and underlying knowledge?

d. It is hypothesised that the suppliance of the target form in the obligatory context demonstrates, by implication, the native-like knowledge of that form.

8.

a. Do L2 classroom learners and immersion learners perform comparably regarding the semantic contrasts in L2?

b. It is hypothesised that immersion learners will be more accurate than classroom learners who are at the same level as them. In addition, it is hypothesised that instruction will not help classroom learners to achieve a complete mastery of semantic contrasts in L2.

These questions and hypotheses will be visited and re-stated in more detail later in the thesis after discussing the relevant background and L2 literature.

1.8 Thesis Organisation

The thesis is organised as follows: In Chapter 2, the linguistic background for tense and aspect is described. Furthermore, the parametric differences between English and Saudi Arabic and the tasks for L2 acquisition are outlined. In Chapter 3, tense-aspect acquisition research is summarised from two paradigms: Aspect Hypothesis and the Generative Perspective. In Chapter 4, the methodology, design and participants are described. In addition, the predictions for each task are outlined. Chapter 5 reports the findings obtained from the experimental tasks and the relationship between the experimental tasks. Chapter 6

discusses the findings at the micro level with respect to the research questions. Chapter 7 draws implications from the findings with regard to the predictions of SLA hypotheses. The implications are discussed at the macro level and divided into two parts: theoretical and pedagogical. Finally, Chapter 8 provides an overall summary of the main findings reported in the present study.

Aspect and Tense in Arabic and English

2.1 Introduction

The relationship between tense and aspect has been an attractive issue for many scholars. The huge amount of research that has been undertaken in the field reflects how controversial and interesting a field of inquiry tense-aspect remains. Tense generally places an event on the timeline relevant to the time of speech *past, present, or future* (Comrie 1976; Reichenbach 1947). Thus, tense refers to a temporal deixis; the relation of an event or a situation to a reference time. However, while tense places an event in time, aspect refers to how an event unfolds in time, whether it is ongoing or has already been completed (Comrie 1976). Tense is different from aspect in its temporal deixis. Aspect is not a deictic category, but rather describes "the different ways of viewing the internal temporal constituency of a situation" (Comrie 1976:3). Therefore, aspect describes or refers to the internal properties of an event, whether it is ongoing or has been completed (Comrie 1976; Reichenbach 1947; Chung & Timberlake 1985). To illustrate, the difference between the following sentences in terms of tense and aspect will be considered. The difference between (1) and (2) is *tense* since the difference is between situation time in relation to speech time while the difference between (22) and (3) is *aspect* since the difference is in how the action is viewed by the speaker; in sentence (2) the situation is viewed externally as a whole completed without distinguishing any of its internal structure while in (3) it is viewed internally ongoing, with no reference to its initial and final points (Comrie 1976).

1. He plays football every day.
2. He played football yesterday.
3. He was playing football.

Beside the absolute tense shown in (1,2), Comrie also advances another form of tense, relative tense, in which the time of situation is relative to an additional reference point given by the context; as in (4):

    4. When jogging in the park, I saw a squirrel.

To sum up, tense usually places a particular situation in relation to the time of utterance whereas aspect describes how it occurs over a period of time focusing on the internal properties of the event (Comrie 1976; Smith 1997; Chung & Timberlake 1985; Reichenbach 1947). Aspectual interpretations have been traditionally investigated from different sources: lexical, grammatical and compositional (section 2.2). Thus, recent theoretical approaches have been provided to address tense and aspect and their interpretations. Therefore, in the following sections, we will explain these concepts in more detail, outlining how these concepts are addressed in the literature (2.3 and section 2.5). The objective of this chapter is, therefore, to provide and introduce the general concepts associated with tense and aspect, and to present a descriptive analysis of aspectual and temporal differences in English and Arabic. The chapter will conclude by summing up the parametric variations between the two languages and the different theoretical approaches (2.6.1).

2.2 Aspect

According to Binnick (1991:136), *aspect* is a loan translation from the Slavic for the Russian word '*vid*' which is cognate with the words *vision* and *view*. Indeed, Comrie's (1976:3) definition of the term "aspect" captures the same etymological sense *"the different ways of viewing the internal temporal constituency of a situation"*. Smith (1997) claimed that aspect is a universal property and common to all human languages. Aspect can be divided into two types: 1) situation (inherent) aspect refers to the inherent semantic property of the verb phrase, and 2) viewpoint (grammatical) aspect is encoded in verbal inflectional morphology

and related grammatical means such as perfective/imperfective (Salaberry 2008). Therefore grammatical aspect reflects the speaker's decision as to whether to look at the situation from outside or to look at the internal structure of the situation from inside. Aspect generally describes how an event unfolds in time in contrast to tense, that is, whether it is ongoing in time or has already been completed (Comrie 1976; Smith 1997; Chung & Timberlake 1985).

However, even though situation and viewpoint aspect are claimed to be universal properties and are common to all human languages cross-linguistically, languages differ in the way that they realise them. For example, the English progressive *be+v-ing* is a modification or a realisation of viewpoint aspect progressive which can occur with a number of inherent (situation) lexical predicates:

5. He is playing. (activity)
6. He is drawing a picture. (accomplishment)
7. He is leaving. (achievement)
8. He is sitting on the chair. (stative)

The progressive marking in English *be+v-ing* can have additional meanings such as the future interpretation *I am leaving tomorrow*. By contrast, the Chinese progressive marking *zai* which has an equivalent meaning to the English progressive *be+v-ing* is more restricted in its distribution. It can only occur with activity and accomplishment predicates (Li & Shirai 2000):

9. Tamen *zai*-da qiu (activity)

   They *zai*-play ball

   'They are playing football.'

10. Zhangsan *zai*-xie yifeng xin (accomplishment)

    Zhangsan *zai*-write one letter

    'Zhangsan is writing a letter.'

Similarly, the Japanese grammatical form denoting the progressive *te-iru* does not allow a progressive interpretation with achievement predicates but a resultative interpretation (Gabriele & Martohardjono 2005; Ogihara 1998):

11. Hikooki-ga kuukoo-ni tui**te-iru**   (achievement)

    Plane-nom airport-at arrive-***te-iru***

    'The plane is (arrived) at the airport.'

Arabic, on the other hand, has two aspects: the perfect and the imperfect (Benmamoun 2000). Arabic does not appear to grammaticalise the progressive aspect like English *be+v-ing* or Chinese *zai*. The imperfect aspect can denote both habitual and progressive interpretations:

12. ya-la'ab   koorah   ala'an   (progressive)

    imp-play.3ms football   now

     'He is playing football now.'

13. ya-la'ab   koorah   kol yuam   (habitual)

     imp-play.3ms football everyday

    'He plays football every day.'

English realises morphologically the aspectual contrast between habitual and progressive unlike Arabic:

14. Ahmad writes a letter.   (*v-s* denotes a habitual reading)
15. Ahmad is writing a letter. (*be+v-ing* denotes a progressive reading)

Therefore, languages differ in the way that they realise viewpoint and situation aspects, and they differ as well in parameterising the associated readings. They display some similarities

but also crucial differences in the aspectual domains. Recently, researchers have shown an increased interest in SLA studies regarding the idea of how grammatical aspect interacts differently with lexical aspect cross-linguistically. For example, Smith (1997) pointed out that French is a language where all the grammatical aspect markers can combine freely with all the verb classes. However, in other languages, there are more restrictions on this combination. We have already pointed out that in Chinese, the progressive marker *zai* is compatible only with predicates that are durative (accomplishment and activity). Recent developments in SLA research have heightened the need for an extensive investigation of the semantic interpretations that L2 learners assign to L2 aspectual forms (see Slabakova (2008) for a comprehensive review). The findings from these studies bring new insights to investigations into other aspects of SLA that need to be explored further.

Previous treatments of aspect have examined aspectual interpretations and distinctions from three perspectives: *lexical aspect, grammatical aspect, and compositional aspect.* We will address these three perspectives in detail adopting an approach that assumes that UG provides the essential makeup of aspectual systems (Smith 1997).

2.2.1   Lexical aspect

Situation aspect, which is also known as *aktionsart* aspect or lexical aspect, refers to the inherent semantic characteristics of a situation such as telicity or durativity. Aristotle is generally assumed in literature to have been the first to observe that there are some semantic properties that can differentiate some verbs from others. One example is the idea of *telos* or endpoint, what is now telicity; some verbs refer to the idea of *telos* as "telicity" while others do not.

Vendler (1967) classified verbs into four situation aspect categories: Statives, Activity, Accomplishment, and Achievement. Table 2.1 illustrates some examples of each category:

State	Activity	Accomplishment	Achievement
Want	Run	Run a mile	Find something
Like	Write	Write a letter	Recognise something

Table 2.1: Vendler's aspectual situation classes

Vendler (1967) determined these classes based on entailments and compatibility with temporal adverbial. Therefore, each aspectual class has its own different characteristics. However, these four aspectual classes can be differentiated from each other by the interaction of three universal primitive semantic features: [+/-Telicity], [+/-Dynamicity], and [+/-Punctuality]. The interaction between these three primitive semantic features determines the lexical aspect of the verb phrase. They are defined as follows:

- Telicity: distinguishing predicates with inherent endpoints (*telic)* from those without endpoints (*atelic)*.

- Dynamicity: distinguishing dynamic predicates such as *play* and *write* from statives such as *love* and *want.*

- Punctuality: distinguishing predicates that can be perceived to take place instantaneously such as *arrive* and *find something* from those which take place over time like *draw a picture* and *build a house.*

Verb class	Punctuality	Dynamicity	Telicity
State	-	-	-
Activity	-	+	-
Accomplishment	-	+	+
Achievement	+	+	+

Table 2.2:   Primitive semantic features for each verb class

22

 The feature [-dynamic] represents statives like *John loves football*. By contrast, events are [+dynamic] since they require energy or involve change and are "*continually subject to a new input of energy*" such as *he is playing football now* (Comrie 1976:49). The feature [+ punctual] refers to situations that occur instantaneously or quickly like *suddenly he noticed her in the corridor* while the feature [-punctual] refers to predicates that can last for some time such as *he drew a picture*. The feature [+telic] indicates that the event has a goal or an endpoint such as *John ran a mile* whereas the feature [-telic] indicates that the situation has no endpoint such as *John ran laps*.[4]

However, this approach is limited in its application to aspectual interpretations in that verbs are not specific to one inherent class and therefore one interpretation, but rather they change meaning from one class to another depending on various factors. A strict classification like the one presented by Vendler does not account for the fact that aspectual interpretation is not only determined by inherent features of the verb but also by other elements within the verbal phrase. Thus, it is not always easy to determine to which class the predicate belongs. Consider the following sentences:

    16. He wrote.   (activity)
    17. He wrote a letter.   (accomplishment)

In (16) the verb *wrote* is an activity verb since it is [+*dynamic;-punctual;-telic*]whereas in (17) the direct object *a letter* shifts the verb class from activity to accomplishment, and in return changes the aspectual interpretation of the verb phrase by adding the feature [telic] to

---

[4] The telicity feature has been a centre of ongoing debate in L2 literature since languages differ in the way they realise telicity. See Slabakova (2001) for more discussion of the acquisition of telicity in the second language.

the interpretation. The interaction between the verb and other elements within the VP phrase

is sometimes crucial to assigning the aspectual meaning as shown here:

18. I ran in the park yesterday   (Activity/perfective)
19. I ran in the park yesterday but I did not finish the whole run. (Activity/perfective)
20. I ran a mile in the park yesterday   (Accomplishment/perfective)

The viewpoint aspect in all examples (18), (19) and (20) is the same perfective. However, the

verb to run in (18) does not denote a complete interpretation since it can be combined with a

sentence entailing an incomplete interpretation as in (19); therefore it is atelic predicate

whereas in (20) it is telic interpretation since it has the defined goal *a mile*: therefore, it is a

telic predicate and the interpretation is that the event of running a mile was in fact completed.

Although the perfective aspect stayed constant across the three sentences, the action does not

entail a completed interpretation in (18) whereas the existence of a specific goal within the

VP phrase in (20) converts the interpretation into a completed action. In such cases, the

aspectual interpretation is not only determined by the inherent features of the lexical aspect

but also includes other elements such as the direct object and time expressions. This process

is what is known as compositionality in the literature (Verkuyl 1972).

2.2.2   Grammatical aspect

Grammatical aspect is mainly expressed by using overt grammatical morphemes associated

morphosyntactically with the main verb (Salaberry 2008; Smith 1997). Languages, in fact,

show parametric variations in the markings of these aspectual devices. The traditional

distinction of grammatical aspect is the perfective-imperfective distinction. The perfective

(viewpoint) aspect refers to complete, closed, and bounded events (Comrie 1976).[5] The

perfective aspect looks at the event as a whole disregarding the internal structure of the event

---

[5] Comrie (1976) focused mainly on the word *complete.*

(Comrie 1976; Smith 1997; Slabakova 2001; Binnick 1991). By contrast, the imperfective aspect presents a situation without information about its endpoints (Smith 1997:73). It views an event from within; therefore, it does not indicate whether the event has been actually completed but it does indicate that it was in progress at some point in time as shown in21:

21. Sally was painting a picture, but she did not finish it.

The compatibility with a phrase denoting a non-finished act tells that it is not known whether in fact she finished painting the picture or not. English employs the progressive *be+v-ing* to indicate the imperfective (progressive) aspect and it does not specify the beginning or the end of the event of painting a picture in contrast to the perfective aspect.

Smith (1997) represented this distinction between perfective and imperfective using the following abstract temporal schema:
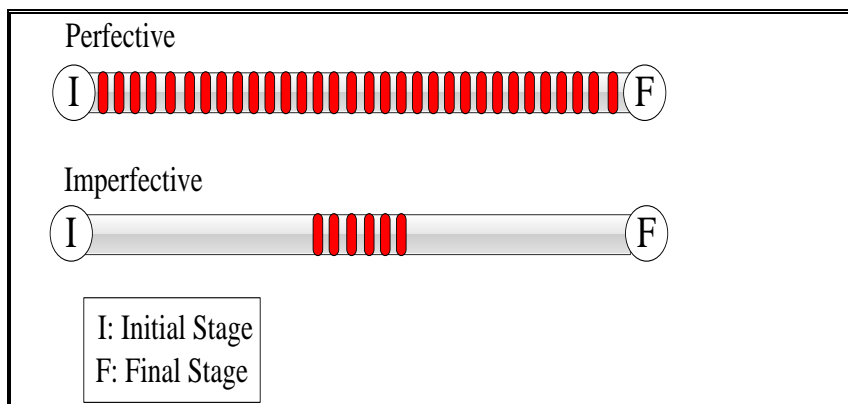
Figure 2.01: Abstract temporal representation

In this abstract representation of an event, as stated earlier, the perfective aspect focuses on the entire event while the imperfective aspect does not focus on the entire event or make reference to its initial or final stages (Smith 1997).

Comrie (1976) pointed out that the distinction between perfective and imperfective is a distinction between separate aspectual notions: imperfectivity is subdivided into a number of aspectual semantic notions such as habituality and progressiveness while perfectivity indicates punctuality and durativity as schematised in Figure 2.002:
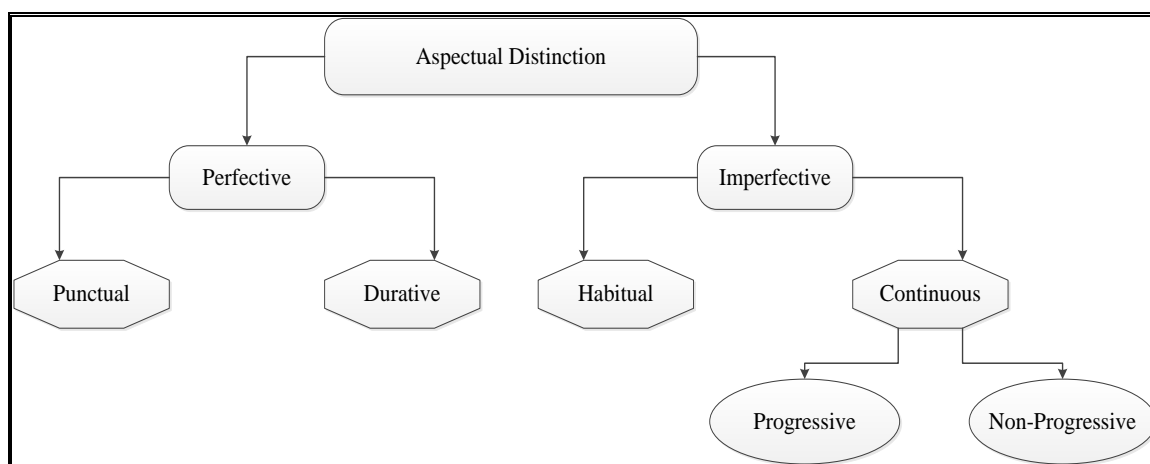
Figure 2.002: Aspectual distinction between perfective/imperfective

In this figure, the perfective aspect usually denotes a temporally restricted and completed event or state. The imperfective aspect, on the other hand, denotes habitual or continuous semantic interpretations. However, at the grammatical aspect level, the distinction is in terms of *boundedness:* an event is bounded if it has come to a temporal boundary (Depraetere 1995). In this view, the imperfective aspect is unbounded because it views the situation from within, focusing on the internal structure of the situation, while the perfective is bounded because it views the situation from outside:

22. Mary loved John.   (state)
23. Sam ran in the park.   (activity)
24. John wrote a letter.   (accomplishment)
25. Nicolas arrived late.   (achievement)

All these examples are bounded events denoting a perfective aspect; the event is bounded if it has reached a temporal boundary regardless of its inherent lexical aspect and whether it has an endpoint or not (Depraetere 1995).

However, as stated earlier, the grammatical (viewpoint) aspect interacts differently cross linguistically with the lexical aspect. For example, the Chinese aspectual marker *-zai* is restricted in its interaction; it only combines with accomplishment and activity predicates, whereas French aspectual grammatical markers combine freely with all VP aspectual classes. Therefore, aspectual meaning is determined and assessed at the lexical and sentential levels. In other words, it involves the lexical semantics of the verb phrase, grammatical verbal morphology, and the interaction between them (Verkuyl 1993,1972).

2.2.3   Compositional aspect (Verkuyl 1972,1993)

The concept of compositional aspect posits that aspectual interpretations should be examined not only at the level of the verb itself but also at the sentential level. The interaction between the verb and its internal argument shifts the lexical or grammatical aspect of the verb, and the aspectual interpretation is dependent on this interaction. Smith (1997:5) illustrates this notion within the following examples:

26. Mary walked in the park.   (atelic)
27. Mary walked to school.   (telic)
28. Edward smoked cigarettes.   (atelic)
29. Edward smoked a cigarette. (telic)

The example in (26) has a locative complement whereas (27) has a directional complement- a goal- for it is telic. The existence of the natural endpoint or goal shows that the aspectual interpretation is not determined by the verb alone but by the verb constellation. Similarly, the object noun phrase in (28) refers to an uncountable quantity while in (29) it refers to a

specific and defined quantity: smoking a particular cigarette has a natural final endpoint. Once the cigarette is finished, the action is completed, but smoking cigarettes is indefinite and might continue that way; thus, it is atelic. The choice results in a different aspectual interpretation. The evidence emerging from these examples is that aspectual meaning is compositional; it is built up through verbs and internal argument structure and not solely determined by verb class.

2.3 Theoretical Approaches to Aspect

I will address in this section how current linguistic theory incorporates these previously considered concepts and definitions. In addition, I will examine how grammatical aspect and lexical aspect are represented within syntax.

2.3.1 A morphosyntactic approach

Giorgi & Pianesi (1997) put forward a morphosyntactic approach to account for aspectual differences. These differences can be explained in terms of differences in the featural composition of an aspectual phrase (AspP). In other words, this featural position posits that aspectual differences between languages are a result of the presence or absence of morphology at the aspectual phrase. In fact, Giorgi & Pianesi made this assumption clear: "languages convey different temporal and aspectual information because the morphemes expressing tense and aspect exhibit different properties" (1997:6).

Giorgi & Pianesi (1997) made a parametric comparison of grammatical aspect in Germanic and Romance languages based on the Minimalist program. In contrast to Romance languages

such as Spanish, English does not distinguish morphologically between perfective and imperfective aspectual interpretations; both interpretations can be morphologically realised with the simple past tense *-ed:*

    30. John played football.
    31. John played football as a child.

Both meanings are realised with the same past tense. However, the imperfective notion may also be expressed periphrastically using *used to* or *would: John used to play football as a child.* English is morphologically neutral regarding this distinction between a one-time and a habitual event. On the other hand, perfective and imperfective aspectual properties are marked morphologically in Spanish by the preterite and imperfect tenses. Giorgi & Pianesi pointed out that the locus of this parametric variation is in the featural makeup of the functional category: AspP. English and Spanish instantiate different morphosyntactic features under this particular verbal head: Spanish instantiates [+/-perfective] semantic features whereas English instantiates [+perfective]. In English, all eventive predicates are inherently associated with the aspectual feature [+perfective] which encodes boundedness. On the other hand, in Spanish, verbs are inherently associated with the features [+/-perfective] and are checked in AspP projection as in Figure 2.03 [irrelevant details are omitted]:
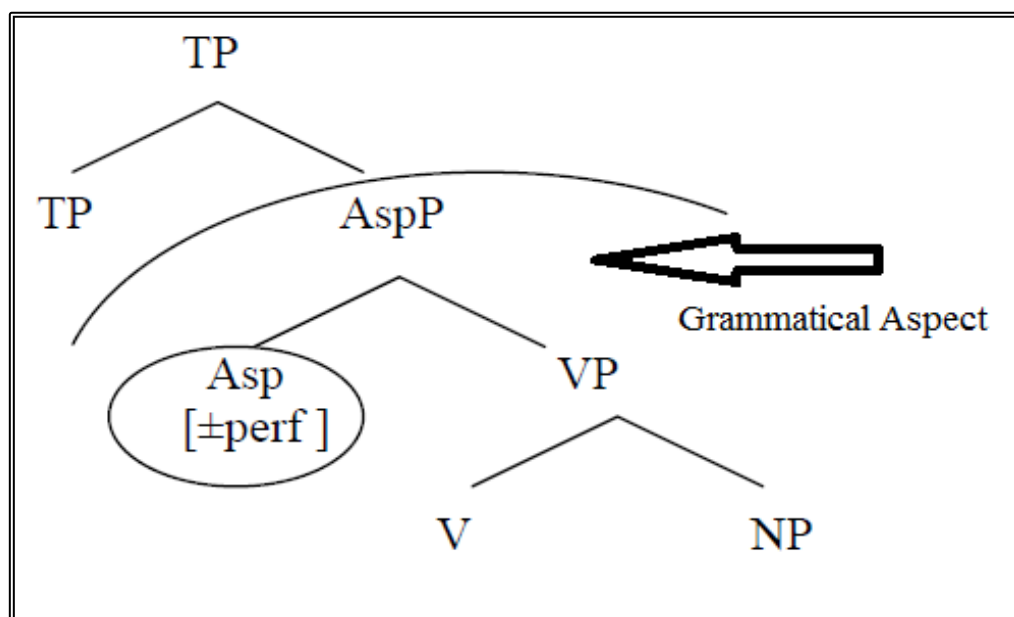
Figure 2.03: The locus of parametric differences between English and Spanish in AspP projection.

Giorgi & Pianesi (1997) provided an explanation for this aspectual distinction based on the present tense form in both English and Spanish. English verbs can be bare roots and require overt morphology to be distinguished from nouns (e.g. *smile; dance; play*). Therefore, English verbs acquire categorical features by being associated with the functional feature [+perfective] which entails temporal closure with eventive predicates. Giorgi & Pianesi claimed that this reason explains why ongoing reading with eventive predicates in English is normally disallowed. On the contrary, Spanish verbs cannot appear as bare forms - they have to be inflected - and are not ambiguous with respect to nouns (no nouns can be verbs). Thus, Spanish does not associate the feature [+perfective] with the present tense, and continuous reading is available.

Giorgi & Pianesi (1997) proposed that the difference in aspectual interpretations lies in the morphosyntactic characteristics of English and Spanish verbs. This approach postulates a close link between morphosyntax and semantics in the aspectual domain. In the next section,

I will address how this analysis can be couched within Chomsky's (1995) Minimalist framework.

2.3.2   Grammatical aspect in Minimalism

In recent Minimalist frameworks, situation and viewpoint aspects are instantiated and have distinct syntactic representations in the clause structure (Borer, 1994; Giorgi & Pianesi, 1997; Slabakova, 1999).

Following Giorgi & Pianesi (1997) and others (Tenny 1994; Adger 2003; Borer 1994; Travis 1994), the assumption is that viewpoint aspect is projected within the clause structure as a functional category (AspP). Therefore, viewpoint aspect is the projection above the vP in the clause structure (Adger 2003:175). Aspectual heads are projections of viewpoint aspect just as [ProgP] is the projection of progressive aspect in English. The aspectual spell-out results from a series of procedures that start from purely syntactic representations and interact with other interfaces (semantic and phonological manifestations). Therefore, the analysis of the morphosyntactic properties of tense and aspect in English involves the operation *Agree* between features of v and T (Adger 2003).[6] *Agree* is defined as follows (Adger 2003:169):

32. Agree
    In a configuration
    X[F:val] ......Y[uF:]
    Where ...... represents c-command, then F checks and values uF, resulting in:
    X[F:val] ......Y[~~uF~~: val]

In this operation, *F* is an interpretable feature whereas *uF* is an uninterpretable feature. *uF* is checked and deleted by *F,* therefore its derivation converges. The essence of this proposal is that v enters the derivation with uninterpretable feature [uInfl:] and the aspectual head hosts an interpretable feature such as [Prog] feature which values the uninterpretable feature of v

---

[6] Adger (2003) was not intended for aspect and tense but has been widely used by L2 researchers.

and deletes *v*[*u*Infl: prog].Thus , this operation yields *v* spelt out with the suffix -*ing*. This is represented in the following schema:

Prog[Prog] ... v[*u*Infl:]   →   Prog[Prog] .... *v*[~~*u*Infl~~ : Prog]

Figure 2.04 shows how this schema is represented syntactically in the underlying structure of *he is playing football* at a point in the derivation before subject raising and spell out takes place:
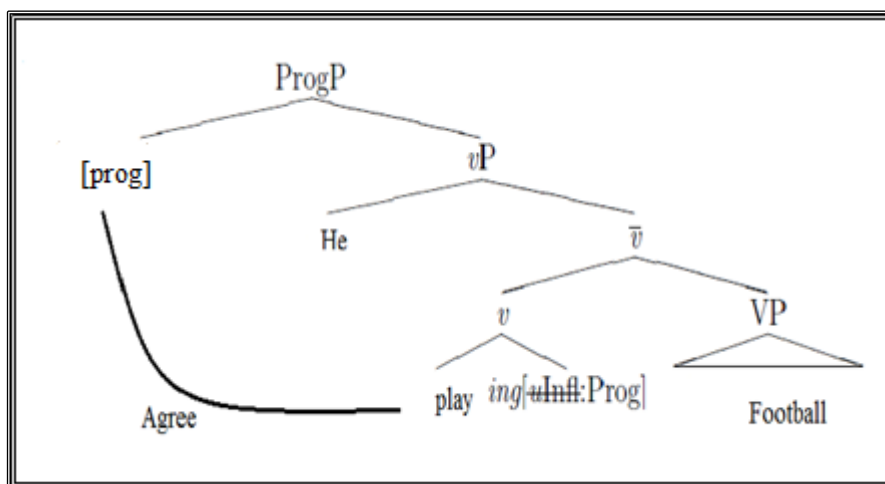
Figure 2.04: Progressive viewpoint aspect in English

This is similar in the case of the temporal perfect auxiliary *have* which has the interpretable categorial feature [Perf]; the derivation of the underlying structure goes when the *v*P has been formed, and the Perf head which has the interpretable perfective feature merges with the uninterpretable feature on *v* [*u*Infl:]. [Perf] on *have* agrees with [*u*Infl] on the verb and it values the uninterpretable feature. In the spell out, the checked feature on little *v* is spelt out as participle affix (Adger 2003:173):

have[Perf] . . . v[*u*Infl:]   →   have[Perf] . . . *v*[~~*u*Infl~~:Perf]

Both theoretical approaches assume that grammatical and lexical aspect and the interaction between them should be represented in the syntax. Giorgi & Pianesi (1997) assume a close connection between morphosyntax and aspectual semantic interpretations and assume that the feature composition is the locus of aspectual differences. Adger (2003) demonstrates that the interaction and the valuation process between interpretable and uninterpretable features shows that grammatical aspect is a reflex of interpretable features. For L2 learners, they need to demonstrate this knowledge of specific feature combinations with the related semantic interpretations.

2.4 Grammatical Aspect in Arabic

Arabic has two grammatical viewpoint aspects the imperfective and perfective distinguished by their inflectional patterns (Benmamoun 2000). Every verb form in Arabic includes the stem (consonantal root and vocalic pattern) and affixes. The two main morphological forms (the perfective and imperfective) are different in terms of the realisation of mood and agreement features (Benmamoun 2000:19). The imperfective form is both suffixal (number feature) and prefixal (person) whereas the perfective form is only suffixal and it mainly indicates the past tense (Benmamoun 2000:176). The following examples are taken from Standard Arabic to illustrate how perfective and imperfective forms are realised:

33. Daras-tu

    study-Pfr- 1.sg

    'I studied.'

34. a- drus

    Imp- study-1.sg

    'I study.'

35. Ta-drus-ii

Imp-study-2fsg

'she studies.'

As already pointed out, the perfective form is mainly suffixal, where the verb is composed of the stem (consonantal root and vocalic melody) and the agreement suffix, while the imperfective form is both suffixal and prefixal. The imperfective in Arabic as marked by the imperfective form IMP can encode progressive and habitual meanings (Ryding 2005), while English distinguishes this contrast morphologically in the present tense and lexicalises the distinction in the past tense by the use of *used to* or *would*. The perfective, on the other hand, as marked by the perfective form , mainly encodes a completed event (Ryding 2005). With regard to the interaction between grammatical aspect and lexical aspect, all the lexical classes in Arabic can be expressed by both imperfective and perfective forms. Therefore, a speaker can choose between the perfective and imperfective form according to his or her viewpoint of the event, with each form contributing to a different aspectual interpretation.

2.4.1   The progressive aspect in some varieties of Arabic

As previously mentioned, Arabic does not morphologically grammaticalise the progressive aspect (Aoun et al. 2010; Benmamoun 2000). The imperfective form is ambiguous between habitual and progressive interpretations. However, in some dialects of Arabic, such as Egyptian dialect, there is assumed to be grammaticalisation of the progressive aspect (Brustad 2000). However, the focus of this study is the Saudi Arabic dialect. In Saudi Arabic, the progressive form *gaa'ad* (sitting) can be used to express a progressive interpretation:

36. Ahmad   gaa'ad   ye-ktib   resalah (SA)

Ahmad- nom sit-prog Imp-write- a- letter

'Ahmad is writing a letter.'

However, the imperfective form of the verb *write* can denote a progressive reading in the absence of *gaa'ad*. Moreover, the use of this form is restricted only to the durative predicates (accomplishments and activity) and it is less natural and unacceptable to be used with achievement (*gaa'ad yu-wsal; *is arriving*) and stative predicates. Given these facts, the form *gaa'ad* seems to act in the same way as the Chinese aspectual progressive marker *zai* which is restricted in its distribution (Li & Shirai 2000). Therefore, we can assume that there is a process of grammaticalisation of the progressive aspect in Saudi dialect and there is also a progressive interpretable feature associated with the form *gaa'ad* in Saudi dialect. The significance of this conclusion will become evident when it is integrated with descriptive analysis later in the chapter. In addition, differences between Arabic and English will be discussed later in the chapter in terms of aspectual contrasts and how their intended readings are realised and encoded morphosyntactically. The next section is going to explain the notion of tense and how it is different from aspect since both terms are closely related even though they are unique.

2.5 Tense

Since aspect and tense are seemingly similar but actually different from each other, this section is going to look at Tense in more detail.

2.5.1 Introduction

Tense has been defined and discussed in a number of different ways based on morphological or semantic criteria. King defined tense as "that semantic notion by which the speaker associates a reported situation with a particular temporal perspective" (1983:126). By contrast, Comrie defined tense as "the grammaticalisation of location in time" (1985:1). In fact, both definitions capture the fact that temporal information in a sentence locates a

situation in time (Smith 1997). In other words, tense locates the event relative to the time of speech (Smith 1997; Comrie 1985). Smith (1997:97) gives the example of how temporal information is expressed in the following sentence:

37. John played in the park for an hour yesterday.

Sentence (37) informs us that the atelic durative event occurred at a time one day prior to the time of speech. The temporal information in the sentence is given by the past tense and time adverbial. Therefore, tense and time adverbials indicate temporal location of time. In other words, it places a situation on the time line relevant to the time of speech *past, present,* and *future* (Comrie 1985; Reichenbach 1947; Smith 1997).Thus, tense is an important element in our attempt to establish the relationship between events being described and the moment of speaking.

Tense is a grammatical category indicated verbally by using a set of verbal inflections or other verbal forms to express a temporal relation between an event and a situation to a reference time. There are some languages which appear not to have this grammatical category (Tense) like Mandarin, Thai, and Malay (Smith 1997:98). In these languages, temporal information is expressed by adverbials, the use of aspectual viewpoint or understood from the context. In other words, there is cross-linguistic variation on how languages represent the notion of tense which can be achieved through grammaticalised expressions or a set of lexical items such as *yesterday, now, and today* (Comrie 1985).

In recent developments of Minimalist Program (MP) by Chomsky (1995,1993), Tense (T) is treated as a functional category which projects and hosts the tense features for whole sentences (Adger 2003:155). The following syntactic structure (Figure 2.05) illustrates how a sentence is a projection of T, with *v*P being the complement of T, and subject in the specifier of TP:
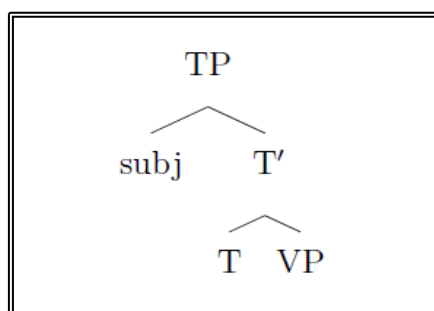
Figure 2.05: Sentence is a projection of T

In a Minimalist framework, Tense category is treated as a functional category. Functional categories are distinguished from lexical categories in a clausal structure representation. The main functional categories are (Comp)lementizer, (T)ense, (Agr)eement, (Det)erminer, and (Neg)ation, they are associated with a set of formal features such as (number, gender, tense, finiteness). Functional categories are taken to be the main locus of cross-linguistic variations and parameterisations. Languages may vary with respect to the realisation of these functional categories or with respect to feature values or the strength of a given functional category (Pollock 1989).

2.5.2 Tense projection in English

The T category hosts tense features which are interpretable by the semantic component of the grammar and with the subject in the specifier of TP assigned nominative case and *v*P being the complement. T determines the tense distinction: that might be realised as the morphological forms *-ed/-s* on the main verb. English grammaticalises the T distinction and can distinguish past from non-past events. The tense distinction can be morphologically marked on the main verbs as in the following examples:

38. He T [past] play-**ed** football.
39. He T [present] go-**es** to school every day.

As can be noted in these examples, tense inflections are bound morphemes that attach to the verb in main clauses, but the question arises as to how such an attachment occurs. In the recent development of Minimalism, it is considered to be an agreement relationship between T and *v*. The analysis of the morphosyntactic properties of tense and aspect in English involves the operation *Agree* between features of *v* and T based on Adger's analysis.

The Agree operation establishes a relationship between two elements on the basis of feature match (Hornstein et al. 2005; Adger 2003). T has interpretable tense features which enter into a checking-valuing relation with uninterpretable features [*u*Infl:] on *v*. The uninterpretable feature gets valued by the interpretable tense feature on T and gets deleted, but there is a morphophonological form which acts as a reflex of this operation. Thus, when the structure is spelled out, the verb and the attached morpheme are pronounced. For example, the past tense is realised when the uninterpretable feature of *v* gets valued by the interpretable feature on T:

$$T \text{ [past] .. } v \text{ [}u\text{Infl:]} \quad \rightarrow \quad T\text{[past].. } v\text{[} \sout{u\text{Infl}}\text{: past]}$$

The previous configuration can be represented in the underlying structure showing how the tense feature of T agrees with the uninterpretable feature on v and gets valued in Figure 2.06:
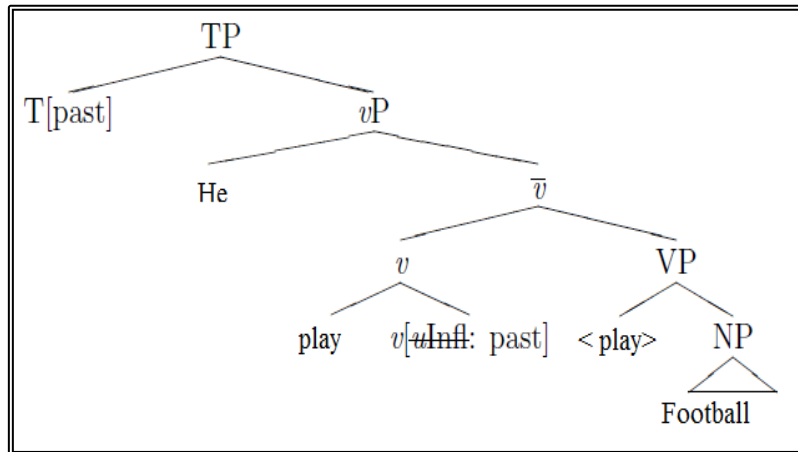
Figure 2.06: Agree relation between T and [*u*Infl:] on *v*

The agree-valuing relationship ensures that the interpretable tense feature of T is compatible with the tense inflection on the verb. Thus, the resulting sentence is interpreted as a past tense sentence *He played football*. However, when there is AspP intervening between T and *v*P, as previously mentioned in the first section, the interpretable feature of Asp agrees and values the uninterpretable feature [*u*Infl:] of *v* and in the spell out, the checked feature on little *v* is spelt out as participle affix *-en* in the case of temporal perfective meaning, or progressive affix *-ing* in the case of progressive aspect. Crucially, at the same time Asp heads have as well an uninterpretable feature [*u*Infl:] which agrees and gets valued by T. However, the reflex of this operation raises to T crossing over negation or adverbs as shown in the following sentences:

40. *Sami misses rarely Mary
41. He has not finished his homework yet
42. *John does not be playing
43. Peter is really going there
44. He is not playing today

As can be noted, main verbs in English do not raise to T crossing negation and adverbs as in the case of (4042). However, unlike main verbs, Asp auxiliaries raise to T in English over

negation and adverbs as in the case of (41,43,44) and that is due to the strong uninterpretable feature Asp has in English (Adger 2003:180). Thus, they raise to T crossing negation and adverbs. By contrast, French main verbs do raise to T (Pollock 1989). French finite main verbs have a strong feature, therefore, they overtly move out of their initial positions to appear before negation and adverbs.

However, Adger's (2003) analysis stops here at the morphological level; it does not tell us about semantic interpretations or about the interface between the underlying syntactic representation and the assigned semantic meaning. In the next section, we will incorporate the analysis adopted by Hawkins et al. (2008) to account for how syntactic operations have semantic consequences.

2.5.3 Semantic effects of syntactic operations

Following Déchaine & Manfredi (2000), Hawkins et al. (2008) assumed that syntactic phenomena like T-*v* agreement and verb raising have semantic effects. Déchaine & Manfredi (2000) provided a syntactic analysis of the interpretations of what is called "null tense" in four language types: English, Italian, and two languages of the Kwa (Niger-Congo) group, Fongbe and Igbo. The "null tense" is the simple present form of verbs in English and Italian, and bare verb forms in Fongbe and Igbo (lacking overt morphology). Figure 2.007 shows the interpretations of the null tense in these languages (taken from Hawkins et al. (2008:335-6)):

	Syntactic expression	Interpretation	
Italian	Mangia il pane	(i) She is eating the bread	(imperfective)
	Eat-3sg the bread	(ii) She eats the bread	(habitual)
English	She eat-s the bread	(i) ---	
	3sg eat-3sg the bread	(ii) She eats the bread	(habitual)
Fongbe	E du wO O	(i) She ate the bread	(past)
	3sg eat bread the	(ii) She has eaten the bread	(present perfect)
Igbo	O ri-ri akpu ahun	(i) She ate the bread	(past)
	3sg eat bread the	(ii) ---	

Figure 2.007: The interpretation of null tense

Hawkins et al. argued that the differences in the interpretations can be captured by two parametric variations:

- Whether T can be interpreted based on the inherent lexical properties of the VP complement as in Fongbe/Igbo but not in English and Italian. In the example above (eat the bread) is an accomplishment predicate in Vendler's classification. Thus, the eventive nature of the predicate stands for T in both Fongbe/Igbo giving perfective interpretations. On the other hand, T, in English and Italian has its own interpretations independent from the eventive nature of the predicate.

- Whether there is thematic v to T raising, as in the case of Igbo/Italian, but not in English /Fongbe. The presence of v-to-T raising yields an extra interpretation in Italian compared to English, but reduces the number of interpretations from two to one in Igbo compared to Fongbe.
  (Hawkins et al. 2008:336)

Déchaine & Manfredi (2000) assumed (as reported in Hawkins et al. (2008)) that T has an uninterpretable feature [Agr]. The presence of this feature blocks the interpretation of T based on the inherent aspectual properties of the VP, and yields a generic/habitual interpretation:

41
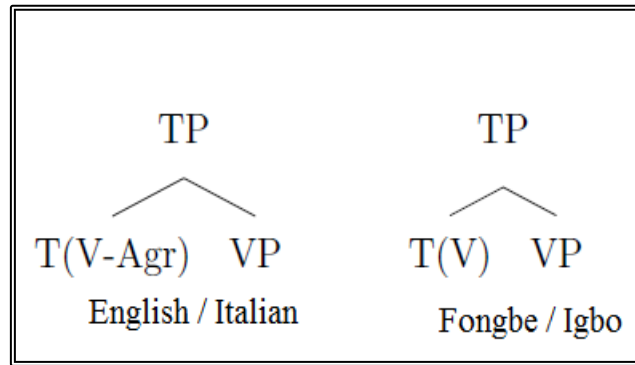
Figure 2.008: Interpretation of T in four languages (taken from Hawkins et al. 2008)

In addition, the raising of v-to-T in Italian and Igbo (driven by the strong feature of T) has an effect on the interpretive readings. It gives an extra existential reading in Italian, whereas in Igbo it closes off one of the interpretive readings (the present perfect):
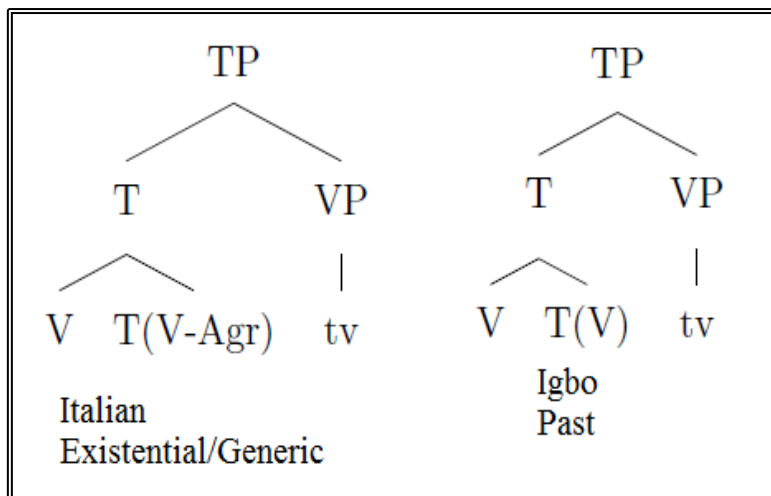
Figure 2.09: Interpretive readings in Italian and Igbo (taken from Hawkins et al. 2008)

Hawkins et al. (2008) applied this analysis to the acquisition of English aspectual interpretations. They assumed that aspectual interpretations are consequences of syntactic operations like verb-raising and T-*v* configuration. From the previous analysis of English clause structure, it was seen that thematic verbs in English do not raise outside the *v*P and

have a weak uninterpretable feature [*u*Infl:] valued by an interpretable feature of c-commanding heads such as progressive or T. Given the fact that thematic *v* does not move to T, simple present and past tenses in English have a habitual/generic interpretation unlike French where the thematic verbs raise –have a strong [*u*Infl:*]– to T yielding both a habitual/generic and an event-in-progress reading (Hawkins et al. 2008:339).

Furthermore, progressive *be* in English does not have a habitual reading unlike raised verbs in French because its interpretable feature [prog] has valued the uninterpretable feature of *v* [*u*Infl:] as *v* [*u*Infl: Prog] blocking habitual/generic reading. At the same time, progressive raising to T for the local valuing of its strong uninterpretable feature [*u*Infl:*] triggers an event-in-progress interpretation. Similarly, we can assume that in the temporal perfective meaning the interpretable feature of Asp [perf] agrees and values the uninterpretable feature [*u*Infl:] of *v* and in the spell out, the checked feature on little *v* is spelt out as participle affix-*en* in the perfective aspect. Crucially, since the [perf] head has a strong uninterpretable feature [*u*Infl:*], *have* raises and adjoins T and the uninterpretable feature is valued by the tense feature [present].

Therefore, the featural makeup of *v* in English is that it has a weak uninterpretable feature [*u*Infl:] unlike Arabic *v* which has a strong uninterpretable feature. The next subsection is a description of tense projection and tense realisations in Arabic.

2.5.4   Tense Projection in Arabic

In Minimalist terms, T is a functional category which projects and hosts the tense features and assigns nominative case to the subject of finite clause (Chomsky 1995). The subject of Arabic finite clauses takes a nominative case (Aoun et al. 2010). The following example is taken from Modern Standard Arabic showing the overt marking for a nominative case:

45. Kataba   al-walad-**u**

    write-prf the-child-**nom**

     'The child wrote.'

The suffix *u* attached to the subject marks the assignment of nominative case to the subject *al-walad*. However, in Saudi Arabic, this overt marking is not overt in lexical subjects, but is seen when pronouns are used. The same example in (45) is repeated in (46) while (47) illustrates the case of pronouns:

46. Kitab   al-walad

    write.prf the-boy-**nom**

    'The boy wrote.'

47. Huw-**u**   bra

    he-**nom** out

    'he is out.'

These independent pronouns cannot be used in non-subject positions as in the example:

48. Sheft   huw-**u**

     see.prf he-**nom**

     '***I** saw he.'

Expletive subjects, which are assumed not to be generated within the thematic shell of VP but are a requirement of EPP in T projection, to check nominal features are possible in Arabic as well (Chomsky 1995). Crucially, the presence of nominative case assignment has been assumed to be related to the presence of tense projection. Pesetsky & Torrego (2001) assumed that nominative case assignment is a reflex of T as an uninterpretable feature (*u*T on D in their terms). Therefore, nominative case can be assigned within TP projection. Under these assumptions and within minimalist framework, subjects move to the specifier position

of TP for feature checking. Based on the assumption that TP is at the top of the verbal projection, there are a number of pieces of evidence that show that TP is the leftmost within a verbal complex:

49. Kann Salem ya-la'ab koorah   (to mark past progressive :tense /*Kaan/+ imperf*)

    was Salem-nom imp.play football

    'Salem was playing football.'

50. sa-ya-ktubu alwalad-**u** darsah-**u**   (future tense *sa* with the imperfective form*)*

    will.imp.write the.boy.**nom** lesson.**his**

    'The boy will write his lesson.'

Given the analysis above, it seems that T exists in the clausal structure in Arabic sentences in contrast to the works of early grammarians such as (Cohen 1924).[7] The future tense *sa* is assumed to be generated under T and the inseparability from the imperfective form shows that the verb moves to T and the existence of T projection.

Arabic is considered to be a verb-raising language (Ouhalla 1994; Fassi Fehri 1993). Pollock (1989) pointed out that if the verb overtly precedes the VP adverb, this can be taken as an indication that the verb moves to a relevant functional category out of the *v*P (Pollock 1989). There is clear evidence that the verb moves out of the *v*P preceding the VP adverbs:

51. ya-tbauz   dayem samak

    Imp.cook.3ms always fish

    'He always cooks fish.'

---

[7]This controversy of T category has been generated by the work of old grammarians - using pre-Minimalist analysis - claiming that Arabic verbs only express aspectual contrasts. See the argument by Cohen (1924), which continues to receive support, as does the work of (Jelinek 1981). The reader is referred to Eisele (1999) Chapter 1 regarding the controversy about tense and aspect in Arabic.

There is also another kind of evidence of verb movement. The evidence comes from where it is possible to use an imperfective stem with [+past, +neg] or [+fut, +neg]. These negative particles are prefixes which cannot be separated from the imperfective form by an intervening element:

52. *Lam   al-bint-**u**   taktub

   Not the girl.**nom** imp.write

    'The girl did not write.'

In these instances, it looks like the verb does move out of the VP suggesting that the verb moves to a relevant functional category such as Asp or T. The next section considers the categorical features of T in Arabic.

2.5.5   Categorical features of T in Arabic

The compositional features of T system in Arabic have been linked to the presence and absence of a verbal element in past and present events in Arabic to account for T featural makeup. The past always requires a verbal element as in (54) while the present does not as shown in (53) (Benmamoun 1999; Aoun et al. 2010; Bakir 1980; Bahloul 1993; Mouchaweh 1986). The following examples are from Saudi Arabic:

53. Ahamd fee al-bait

   Ahamd in the.house

  'Ahmad is in the house.'

54. Ahmad kaan fee al-bait

   Ahmad was   in the-house

  'Ahmad was in the house.'

As can be seen in (53), Arabic may allow verbless sentences having only a subject and a non-verbal element like a noun phrase, an adjective phrase or a prepositional phrase.

2.5.5.1   Benmamoun (2000; 1999)

According to Benmamoun (2000:49), the difference can be attributed to the featural composition of T in Arabic. T in the deictic present is not specified for [+V].Thus, there is no need for verbal copula since it is not required to check its features. On the other hand, past tense requires the existence of the copular element. This can be taken to imply that past tense is specified for [+V]; therefore there is a need for the copula to check the categorical [+V] feature, since the past tense is specified for the verbal feature [+V], the verbal feature will attract the verb to T to value and check its features. By contrast, the present T is not specified for [+V]; hence the verb does not move to T. Therefore, the compositional feature of T in the past and present explains why there is no copular element in the present but explains why it is obligatory in the past, in order to check its [+V] feature. Figure 2.0010 shows the compositional features of T, accounting for the contrast between present and past:
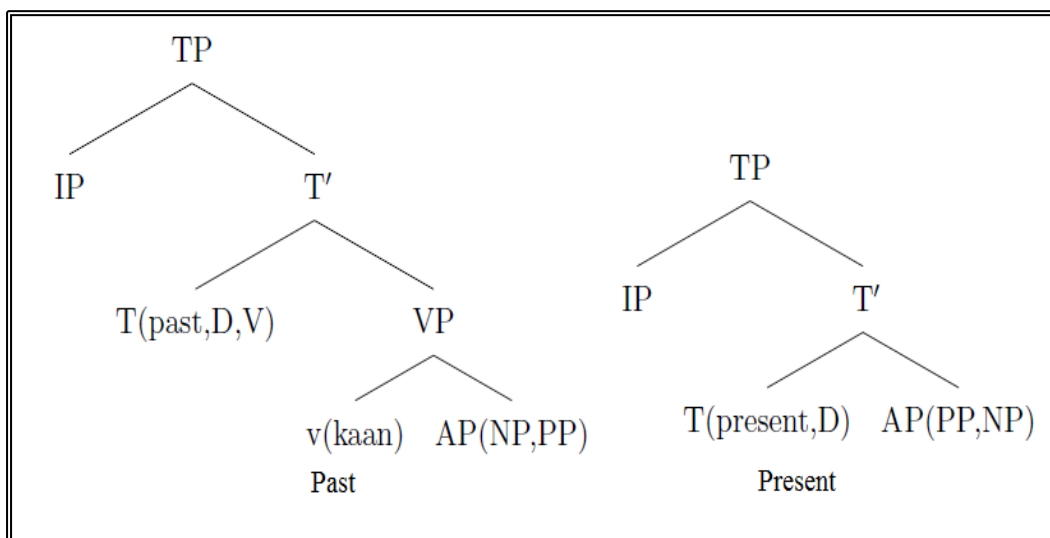
Figure 2.0010: Categorical features of T in the past/present according to Benmamoun (2000)

It is clear that the categorical features of T are not similar. The past T is specified for both [+V] and [+D] and the present T is specified for only [D].[8] According to Benmamoun (1999:175), since T in the present is not specified for [V], the imperfective form does not carry tense or aspect; it is only inflected for agreement (contra to Bahloul 1993; Fassi Fehri 1993).

 Benmamoun (1999:180) assumed that the fact that the imperfective form can be used in a variety of contexts in contrast to the perfective form can be taken as demonstrating that the imperfective form can be used as a default in a context where the verb does not carry any temporal or aspectual features. For example, in the context of tensed negative sentences, the imperfective form is used. Benmamoun argued that the form used after auxiliaries, modals and in non-finite embedded clauses is the defaulted form resorted to when the verb does not carry temporal or aspectual information. The following examples illustrate the distribution of the imperfective in these contexts in Saudi Arabic:

55. Lam ya-ktib

    Neg.past imp.write.3ms

    'He did not write.'

56. Kaan ya-drus

    Was imp.study.3ms

    'he was studying.'

57. Yaby   ya-drus

    Imp.want imp.study.3ms

    'He wants to study.'

---

[8] This is different from Adger's proposal, but presented here as a background and it will not be adopted.

In English and other languages, the non-tensed forms are used in these contexts such as after negation, modals, or in non-finite embedded clauses and they are used as well to derive other nominal and verb elements (Benmamoun 1999:176). Therefore, Arabic present tense is not specified for [+V] feature and it does not have the feature that forces the verb to move to T (Aoun et al. 2010; Benmamoun 2000). Regarding present sentences with verbal predicates, the verb does not need to raise to T projection because the verbal [+V] feature is not specified in present T to be checked by a verbal head (Benmamoun 2000).

1.1.52 Evidence in contradistinction to Benmamoun (1999,2000)

The evidence that T is specified in the present tense in Arabic is based on different arguments:

- The claim that verbless sentences encode T in the present comes from the evidence presented by Fassi Fehri (1993). If we compare (58) to (59), it shows that (59) cannot co-occur with past adverbials; therefore, the verbal sentence encodes T. By the same analogy, comparing (60) to (61) indicates that a verbless sentence encodes T:

58. ar-rajul-**u**   ya-akul-u alaan

    the-man.**nom** imp.eat. now

    'the man is eating.'

59. * ar-rajul-**u**   ya-akul-u aams

    The-man-**nom** imp.eat. yesterday

    '*the man is eating yesterday.'

60. al-rajul-**u**   mariid-un   alaan

    the man.**nom** sick.now now

    'the man is sick now.'

61. *al-rajul-**u**   mariid-un   aams

the.man.**nom** sick.now yesterday

'*the man is sick yesterday.'

The distribution of adverbs shows that tenseless sentences parallel tensed sentences in the functional structures in the temporal interpretations. If T is not specified, it would mean that it is possible to co-occur with any temporal adverbs. However, the ungrammaticality of (61) shows it obeys temporal constraints.

- The second is the argument made by Eisele (1988) that temporal adverbs must be anchored by tense. Thus, verbless sentences encode T since they can co-occur with temporal adverbs:

62. Salem   fee albait   alheen

     Salem.nom in the.house.gen now

       'Salem is in the house now.'

- A verbless sentence embedded under a tensed matrix clause does not necessarily have the same temporal reference as the matrix clause (Benmamoun 2000:40):

63. Qal in Salem fii albeit

    Said   that Salem in the house

    'He said that Salem is the house.'

The matrix clause has a past tense while the embedded clause has a present time reference. This suggests that the embedded clause has a temporal reference independent from the matrix clause.

- The inseparability of the futurate particles from the imperfective stem [sa+imperfective stem] seems to indicate that the verb moves out of the VP to T:

64. Sa - yu-safir-u

    Will imp.travel.3ms

'He will travel.'

Because of the impossibility of separating the futurate participle from the imperfective stem, the evidence favours moving imperfective verbs to T. The same logic can be applied to the negative particles where it is impossible to separate the imperfective form from the negative particles (prefixes).

All this evidence suggests that the T is present in the imperfective form, but the imperfective form is assumed to raise first to aspectual projection before movement to T occurs. Benmamoun (2000) proposed a unified analysis for clause structure in Standard Arabic, Moroccan, and Egyptian Arabic claiming the Asp and T are separate projections contra Fassi Fehri (1993).[9] The study is going to follow Benmamoun's analysis, claiming that T and Asp are syntactically separate but it is going to consider Saudi Arabic which is not included in Benmamoun's analysis. The following structure (Figure 2.00011) represents the clausal structure involving T and Asp [irrelevant details are omitted]:

---

[9] See Ouali & Fortin (2007) for contra argument of what is generated under T and Asp in Moroccan Arabic even though they follow Benmamoun's analysis (2000).
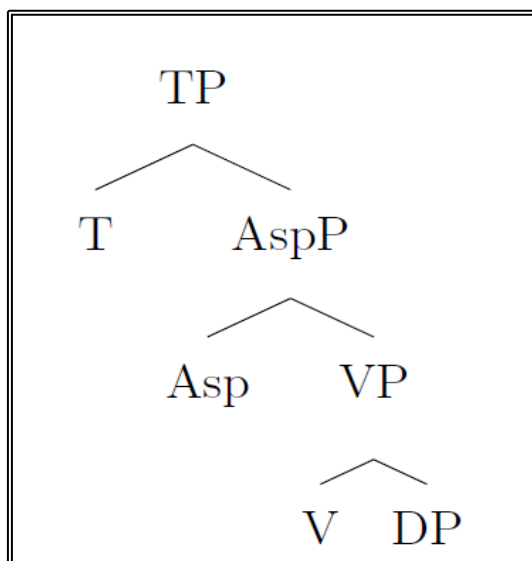
Figure 2.00011: The clausal structure of Saudi Arabic involving T and Asp heads

For the purpose of this study, we will adopt the dual tense-aspect characterisation of Arabic verbs proposed by Comrie (1976) and later enhanced by Fassi Fehri (1993) with the idea that verbal inflections encode a combined grammaticalisation of aspectual and temporal meanings. This is a different perspective from Cohen's claim that Arabic verbs are aspectual and not temporal (Cohen 1924).

2.6 Summary of English and Saudi Arabic background

This section provides a summary of the relevant background discussed earlier in the chapter in relation to tense and aspect. It provides the syntactic derivations and feature analysis of the tested expressions in English and Saudi Arabic (SA).

2.6.1 English

Simple Present = [pres] feature
Simple past = [past] feature
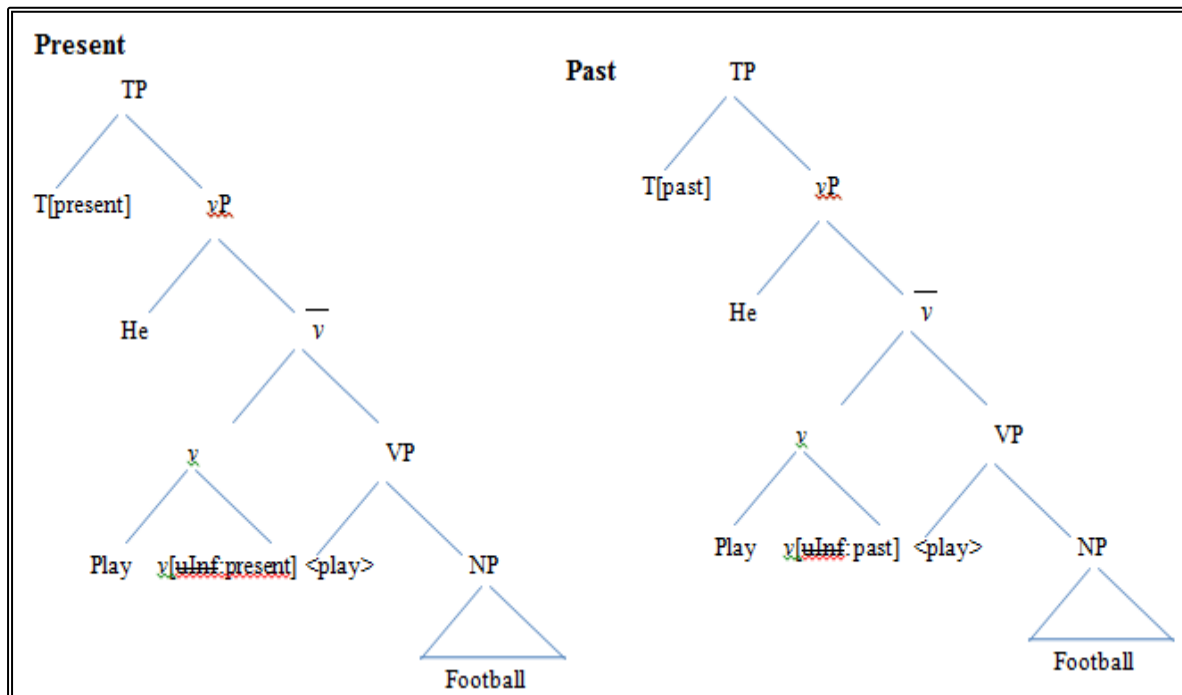
Figure 2.012: The syntactic derivation for Past and Present tenses in English

Present perfect = ([pres] + [perf]) features
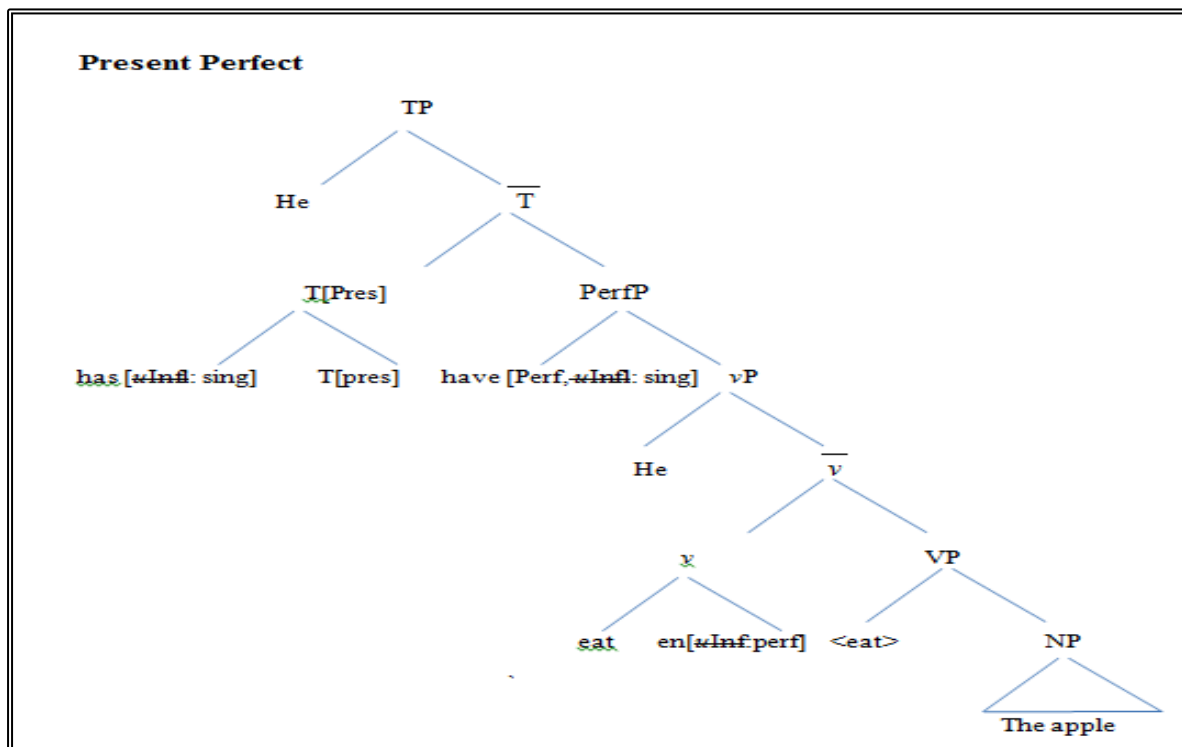
Figure 02.0013: The syntactic derivation for Present Perfect in English

Present Progressive = ([pres] + [prog]) features

Past Progressive = ([past] + [prog]) features

Present Progressive

TP
├─ He
└─ T̄
   ├─ T[Present]
   │ ├─ is [*uInfl*: sing]
   │ └─ T[present]
   └─ ProgP
      ├─ <be> [Prog, *uInfl*: sing]
      └─ vP
         ├─ He
         └─ v̄
            ├─ v
            │ ├─ Play
            │ └─ ing[*uInf*:prog] <Play>
            └─ VP
               └─ NP
                  └─ Football

Past Progressive

TP
├─ He
└─ T̄
   ├─ T[Past]
   │ ├─ was [*uInfl*: sing]
   │ └─ T[past]
   └─ ProgP
      ├─ <be> [Prog, *uInfl*: sing]
      └─ vP
         ├─ He
         └─ v̄
            ├─ v
            │ ├─ Play
            │ └─ ing[*uInf*:prog] <Play>
            └─ VP
               └─ NP
                  └─ Football
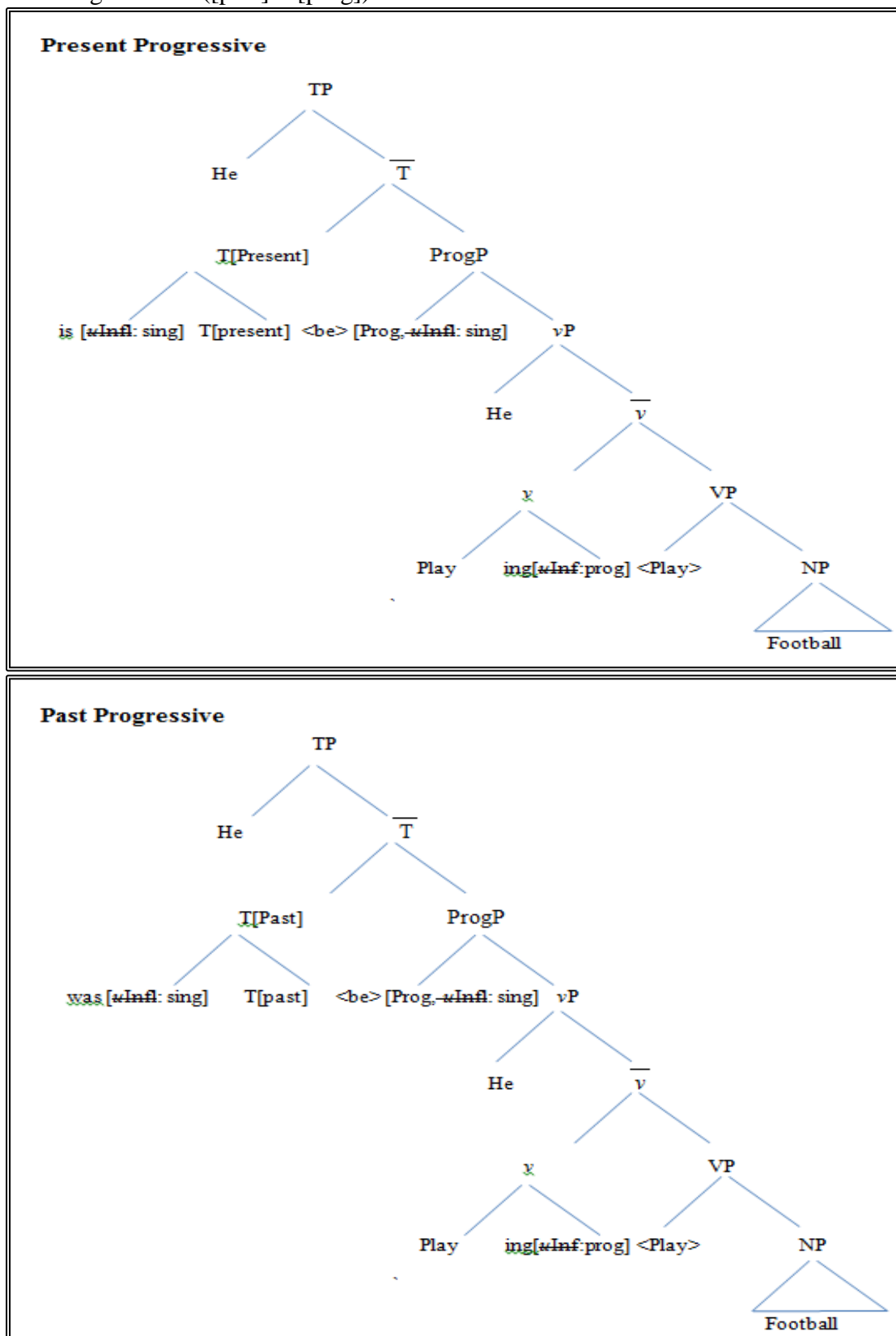
Figure 2.014 The syntactic derivation for Present and Past progressive in English

54

2.6.2   Saudi Arabic

The imperfective = ([pres] + [imp]) features

The perfective (preterite) = ([past] + [perf]) features

The progressive imperfective = ([pres] + [ga'aad] + [imp]) features

The past progressive = ([past, ka'an] + [ga'aad] + [imp]) features

The perfective (present perfect) = ([pres]+ [perf]) features
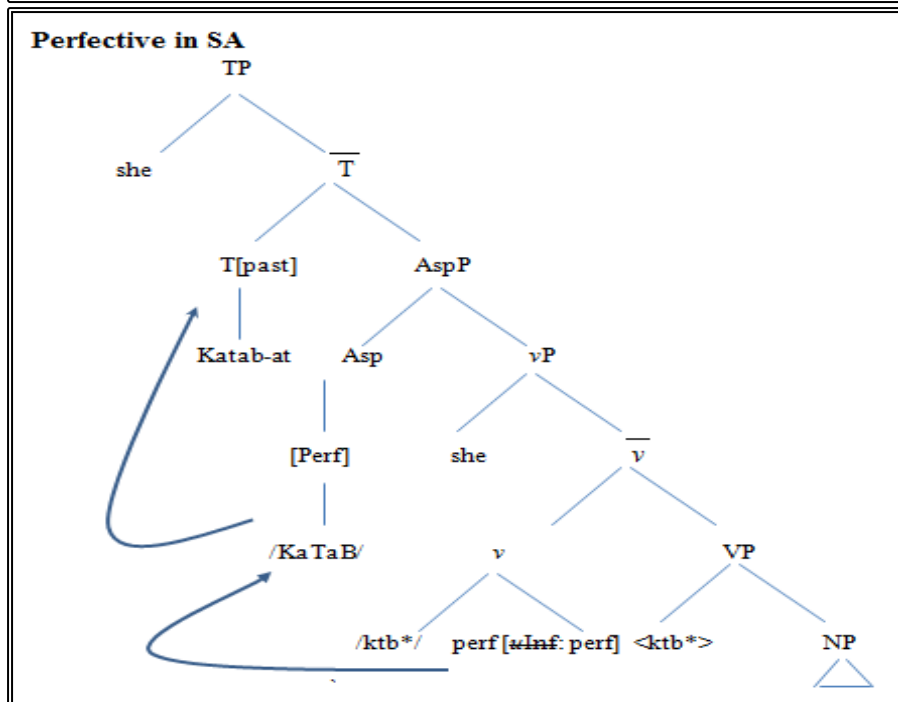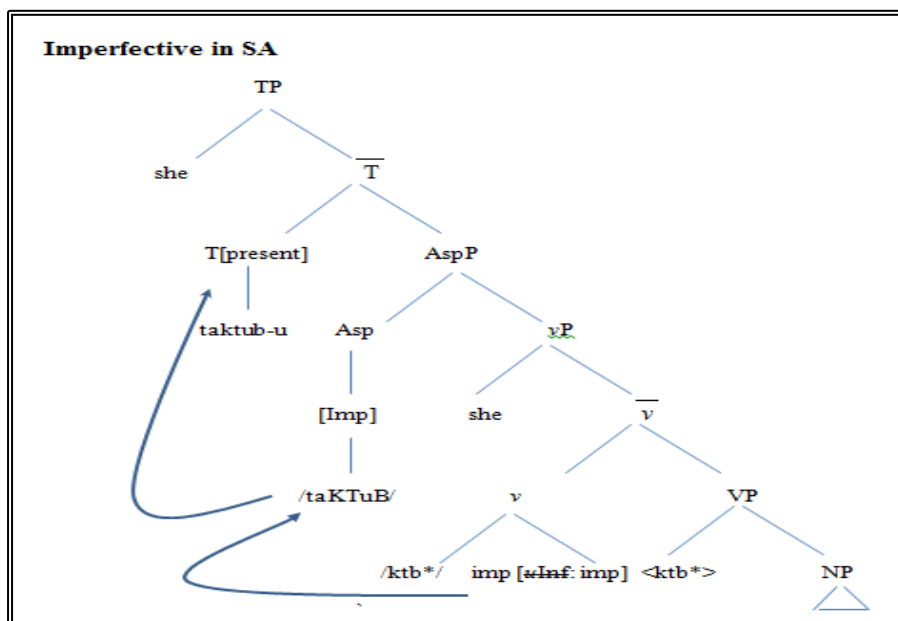
Figure 2.15: The syntactic derivations for Imperfective/perfective in Saudi Arabic
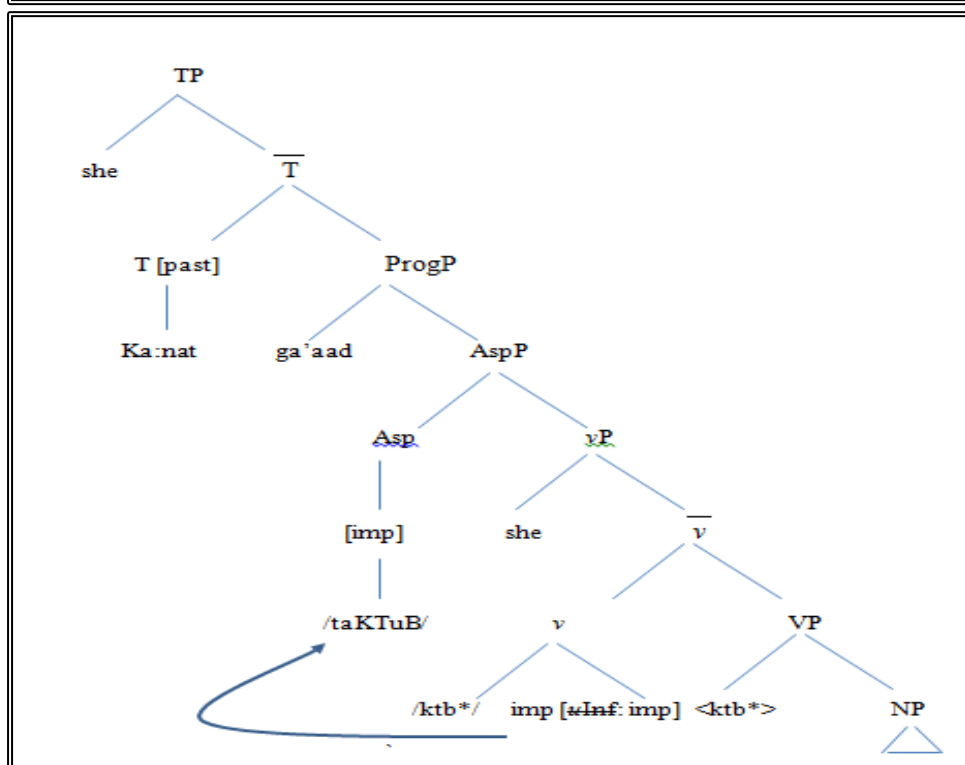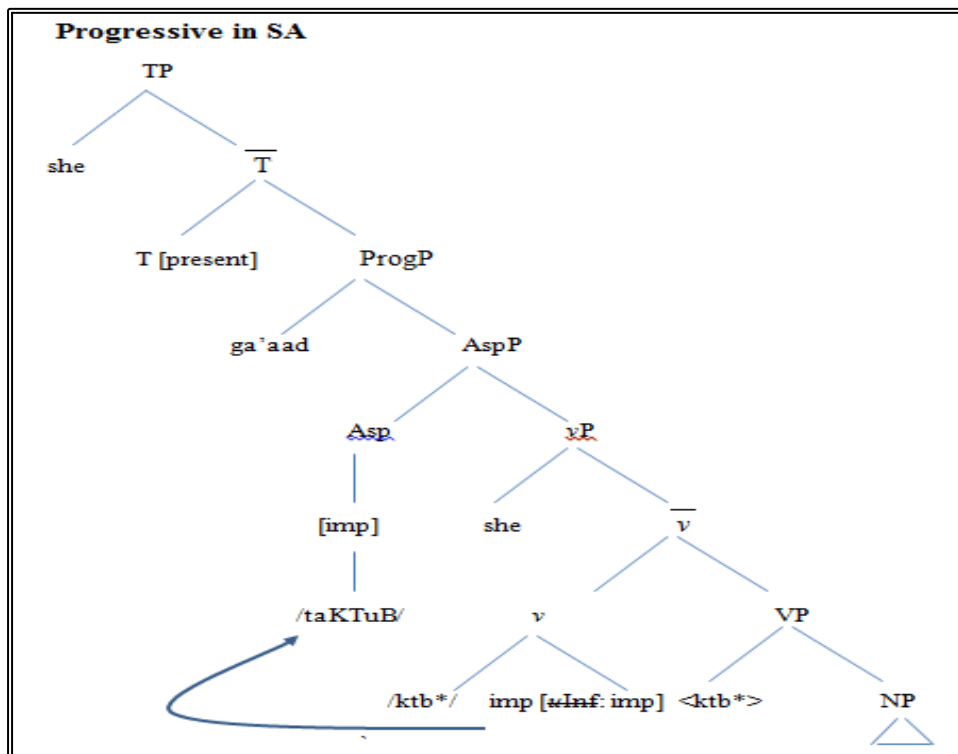
Figure 2.16: The syntactic derivations for Progressive in Present/past tense in Saudi Arabic
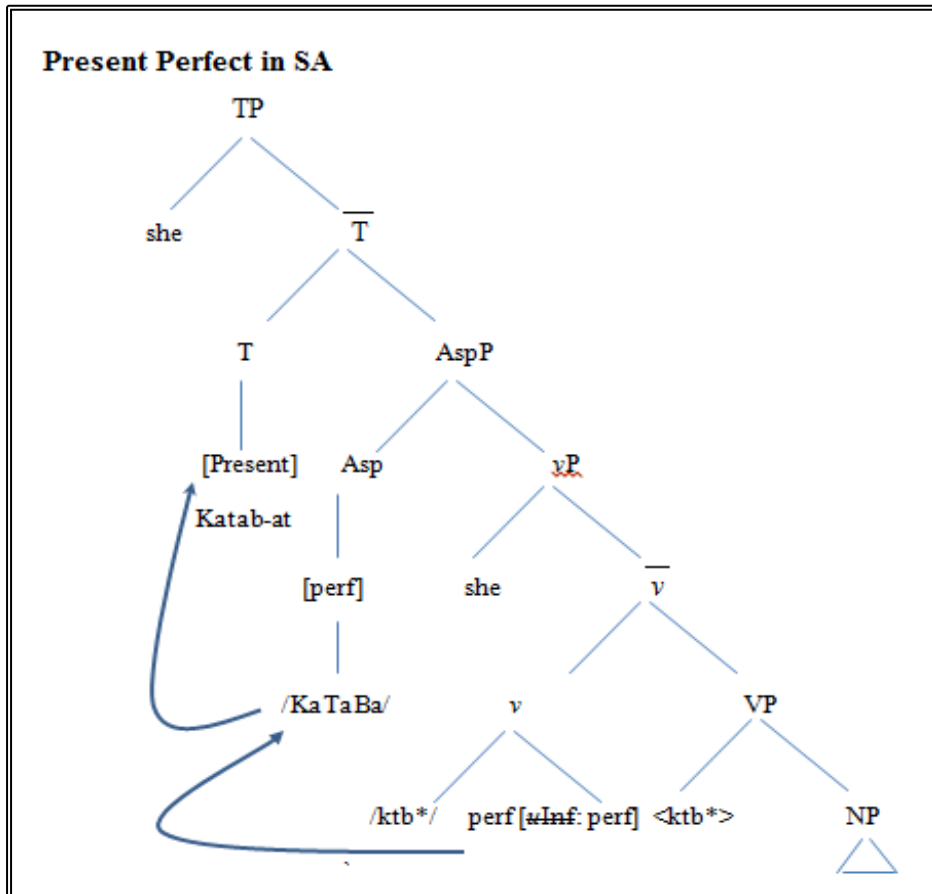
Figure 2.17: The syntactic derivations for Present Perfect in Saudi Arabic

2.7 The Focus of the Study

Having presented and surveyed the linguistic background for T and Asp in both Arabic and English, it is now possible to lay out the parametric differences in the domain of aspectual contrasts.

2.7.1 Habitual vs progressive interpretation

English morphologically realises the aspectual contrasts between the habitual and progressive interpretations as in the following:

65. Saud plays football.　　　(habitual)
66. Saud is playing football.　　(progressive)

The habitual interpretation is realised in the simple form of *v-s* while the progressive interpretation is conveyed in *be+v-ing*. According to Adger (2003), the progressive meaning (interpretable feature) form is encoded morphosyntactically on the progressive morpheme (*ing*) while the auxiliary be carries an uninterpretable progressive feature. Because English thematic main verbs do not raise out of the *v*P, the progressive meaning is achieved through affix hopping (Radford 2009).

On the other hand, Arabic does not morphologically realise aspectual contrasts. The imperfective form can express both a habitual and a progressive reading; the examples are repeated here for illustration:

67. ya-la'ab　　koorah　allan　　　(progressive)

    imp.play.3ms football now

    'He is playing football now.'

68. ya-la'ab　　koorah　kol yoom　　(habitual)

im.play.3ms football everyday

'He plays football every day.'

Arabic *v* has a strong uninterpretable feature which requires thematic finite verbs to raise out of the VP. Therefore, the strong uninterpretable feature on *v* moves to Asp head where the interpretable feature of Asp agrees and values the uninterpretable feature [*u*Infl:*] of *v*. The strong feature [*u*F:*] on *v* is a requirement that the valuing is to take place locally where heads are in sisterhood relation (Adger 2003:173). The effect of this strong feature (unlike English thematic verbs) is to force the verb to raise to Asp head. The Agree relationship ensures that the featural content of Asp [unbounded] is compatible with the aspectual form of the verb. This syntactic operation yields a habitual reading because of the syntactic agreement between Asp and *v* and a progressive reading because of the local valuing. Thus, the same imperfective form can express both a habitual and a progressive reading and the context determines the intended reading.

However, as previously mentioned, the progressive meaning can be expressed in the form of *ga'ad* in Saudi dialect such as in:

69. Salem   ga'ad   ye-gra   aljareedah   (SA)

    Salem.nom sitting imp.read the.newspaper

    'Salem is reading the newspaper.'

The progressive *ga'ad* seems to be very sensitive to the lexical aspect of the verb. It is extremely compatible with activity and accomplishment predicates but sounds less natural with achievement or stative predicates. In other words, it seems the progressive form *ga'ad* is restricted in its distribution. Similarly, the English progressive form is assumed to be

generally not compatible with stative predicates or some achievement predicates (Smith 1997).

Given the above linguistic assumptions, it is assumed that there is a progressive interpretable feature available in both Arabic and English. However, the difference lies in morphological realisation. English realises the progressive form *in be+v-ing* whereas Arabic does not realise it in the morphology overtly. However, it is assumed that the form *ga'ad* in Saudi dialect is associated with a progressive interpretable feature and is restricted in its distribution.

In summary, taking into consideration the assumptions mentioned above, the acquisition task can involve at least the following properties summarised in Table 2.3:

Property	Task
Syntax	The instantiation of uninterpretable feature [*u*Infl:] on *v* (note it is not strong) valued by a c-commanding heads such T or Prog
Morphology	*-s* reflex of [*u*present] *-ing* reflex of interpretable feature [prog]
Semantics	-simple present tense has a habitual reading -progressive *be* has a progressive reading because of T-v agreement plus the raising of the strong uninterpretable feature to T

Table 2.3: The acquisition task for Saudi Arabic speaker 1

2.7.2   Preterite vs present perfect

Another difference between Saudi Arabic and English is the contrast between the past (preterite), which is used to refer to a past event, and the present perfect, which is used to describe a past event that extends over present time (Leech 1987). English morphologically realises the contrast between them overtly as in:

70. John played football.
71. John has played football.

The contrast is morphologically realised in English. The past (preterite) is encoded morphologically on the suffix morpheme attached to the verb. By contrast, the present perfect is formed by the auxiliary *have* and the past participle form of the verb. According to Adger (2003), the auxiliary *have* has an interpretable feature which values the uninterpretable feature on the verb.

On the other hand, Saudi Arabic does not morphologically realise the distinction between the past and the present perfect. The following example illustrates that there is no distinction:

72. Kitab   Ahmad   Darsa-h

    Write.prf Ahmad lesson.his

    'Ahmad wrote/has written his lesson.'

However, the intended reading can be achieved in Saudi Arabic using adverbials such as *yesterday, just now, or yet*:

73. Kitab Ahmad darsah-h ams

    Write.prf Ahmad lesson.his yesterday

    'Ahmad wrote his lesson yesterday.'

74. Ahmad tuuh kitab darsah-h

    Ahmad just write.prf lesson.his

    'Ahmad has just written his lesson.'

The fact is that the time location of the event almost coincides with the moment of speaking even though the verb is in the perfective form indicates that the perfective has a present tense interpretation (Bahloul 2008). The perfective verb collocates with the adverbial *just* in the above example giving evidence for this interpretation.

Aoun et al. (2010) recently proposed (following Benmamoun (2000)) that T has an abstract tense feature in the past. By contrast, this study is going to assume that there is an interpretable tense feature under T in Arabic expressed via suffixes in the perfective (Fassi Fehri 2004).

Fassi Fehri (2004) recently proposed that there are two types of tense projections in the underlying structure: Absolute T (T1=Past) and Relative tense (T2=perfect). He assumed that there is an interpretable T feature under T and an interpretable perfect feature which is not overtly realised in Arabic morphology. This proposal is in alignment with the proposed analysis of this study. Since both meanings are expressed in the same form in Saudi Arabic as in the example (72), it is believed that the verb raises to both [Perf] projection and [T] with the semantic effects of having both interpretations. However, the intended reading can be achieved through context and by using adverbials. In contrast, English is different from Saudi Arabic since it distinguishes morphologically between both readings. The acquisition tasks are summarised in Table 2.4:

Property	Task
Syntax	The instantiation of uninterpretable feature [*u*Infl:] on *v* (note it is not strong) valued by a c-commanding heads such T or Perf
Morphology	*-ed* reflex of [*u*past] *-have +V-en* reflex of interpretable feature [perf]
Semantics	-simple past tense has completed interpretations - have+V-en has a past event that extends over present time semantics

Table 2.4 : The acquisition task for Saudi-Arabic speakers 2

Therefore, it seems that Saudi Arabic differs from English in its lack of morphological realisation of this distinction. Saudi Arabic does not express both temporal meanings

morphologically but employs adverbials and context to achieve the intended reading. Sometimes, the perfective has a present tense interpretation and it can coincide with present interpretation adverbial as in the previous example (72). The fact that the perfective can collocate with the past and present interpretation adverbials suggests that the perfective form is ambiguous between two interpretations. By contrast, English distinguishes between both temporal meanings; if the intended reading is the past the [perf] does not project and if the intended meaning is the present perfect, the [perf] is projected.

According to Hawkins et al. (2008), the realisation of aspectual meanings involves uninterpretable and interpretable features and form-meaning associations concerning aspect. Therefore, the question in SLA is whether L2 learners can acquire and establish these form-meaning associations in their ILG.

2.7.3   Tasks for L2 learners

Applied to SLA, challenges facing L2 learners in the acquisition of the realisation of aspectual and temporal properties are numerous ranging from morphology to related semantics. Cross-linguistically, languages differ in the way that these aspectual and temporal properties are realised. Accordingly, L2 learners have to establish the appropriate aspectual and temporal representations for verbal morphology that they encounter in their acquisition process. Furthermore, they have to learn that the readings of L2 morphology have different meanings from their L1, and therefore they should acquire these morphological forms together with their associated readings and interpretations. Given these cross-linguistic differences, the native language might be a possible answer explaining the difficulty facing L2 learners in this domain. Therefore, this study addresses the question of L1 transfer in the acquisition of the semantic contrasts in English by adult Saudi Arabic learners. In fact, a number of studies in SLA research have linked divergence from the target language to

persistent transfer of L1 properties, which are not compatible with L2 grammar (Hawkins et al. 2008; Gabriele et al. 2003).

Crucially, the domain of temporal and aspectual distinction is challenging because it involves and requires an integration of multiple components such as morphology, syntax, semantics and even pragmatics. The recurrent claim is that linguistic properties at interfaces are inherently more challenging than specific-domain properties (Montrul 2011). Indeed, SLA research has demonstrated that the acquisition of aspect is challenging for L2 learners (see Coppieters 1987; Bardovi-Harlig 2000). Recent research has in fact proposed that this domain of interface between syntax-semantics might be subject to transfer from L1, leading to L2 variability (Gabriele 2005; Marsden 2003). However, Slabakova (2008) pointed out that the syntax-semantics interface seems to be unproblematic for L2 acquisition. The recent emphasis has been on investigation of how different components of the grammar interact with each other and the effects of this interaction (White 2011a). Particularly, the task for L2 learners is in figuring out how these interactions occur in terms of, for example, how to map L2 morphemes onto their target syntactic-semantic interpretive, which is different from their L1 grammar. Therefore, the aim of this study is to look into differences between English and Arabic in terms of aspectual and temporal contrasts in order to test whether the properties that require integration can be acquired or not, and to investigate to what extent the similarity and the difference between the L1 and the L2 can facilitate or hinder the acquisition. So the ultimate research question is:

- Can learners map the semantics of aspectual and temporal structures when forms in L2 differ from their L1?

2.8 Summary

In this chapter, aspect and tense have been discussed. Smith (1997) pointed out that aspect is universal and common to all human languages; in other words, it is a property of UG. Aspect is divided into two categories: situational aspect, and viewpoint aspect. Situational aspect refers to the inherent semantic properties of the verb phrase. On the other hand, viewpoint is usually expressed by using overt grammatical morphemes associated with the main verb and is mainly divided into perfective-imperfective distinction (Smith 1997). However, different readings and interpretations are produced when both situational aspect and viewpoint aspect are combined together in the clause structure.

Tense (T) was defined as the grammatical expression of time location. It was argued that T is a separate functional category from Asp projection in both English and Arabic. The relevant background was presented and discussed in terms of the agreement relation between the interpretable feature of T and the uninterpretable feature of the verb. The semantic effects of this operation were outlined as well. The controversy of T in Arabic was evaluated and reviewed and it was assumed that T and Asp were existent in the underlying structure of Saudi Arabic. The aspectual and temporal contrasts in both English and Saudi Arabic were compared and discussed to outline the tasks for L2 learners.

The next chapter is going to shed light on the literature of tense/aspect acquisition.

Aspect-Tense Acquisition Research

3.1 Introduction

The acquisition of tense-aspect has been a main interest for a number of studies in first and second language acquisition. Most studies have investigated what is variously labelled as the "Aspect Hypothesis" in first and second languages (Brown 1973; Antinucci & Miller 1976; Bronckart & Sinclair 1973; Shirai & Andersen 1995; Li & Shirai 2000; Bardovi-Harlig 2000 for a comprehensive review). The main idea behind this approach is that the development of tense-aspect morphology especially at early stages of L1 and L2 is guided and influenced by the situational aspect properties of the verb class. For example, it has been observed that perfective morphology has been associated and linked with telic verb phrases in early stages of development. However, there are other empirical minimalist studies focused on the acquisition of telicity marking by Bulgarian speakers or the acquisition of L2 Spanish preterite-imperfective contrast by native speakers of English (Slabakova 1999,2001; Montrul & Slabakova 2002). These studies have investigated the acquisition of tense-aspect within the framework of UG focusing mainly on the acquisition of relevant functional categories and its semantic consequences in L2 development (Slabakova 2008). According to Bardovi-Harlig (1999:341), the development of research into the acquisition of temporal and aspectual systems reflects the development of research in L2 in general, from the early studies about accuracy orders to domain-specific research.

In this chapter my review will focus on studies that have investigated the acquisition of aspectual morphology and its interpretations. In the first part of the review, I will discuss the early studies on morpheme acquisition – section 3.2– and the "Aspect Hypothesis" (non-generative studies). I will then review more current works on the "Aspect Hypothesis" in

second language acquisition (3.33.4). I will review the observation that has been reported consistently in the results of L2 acquisition studies: learners tend to restrict their tense-aspect morphology to certain verb classes. I will also examine how the majority of these studies have exclusively focused on the emergence of morphological forms (3.5). Apart from these studies, I will review emerging studies which have been conducted on the acquisition of aspect in L2 acquisition within the framework of UG (3.6). Importantly, I will examine and review two sets of L2 data: the "Aspect Hypothesis" (non-generative perspective) data and L2 generative data.

3.2 Early Morpheme Studies

The first work on child acquisition of morphology including verbal morphology such as tense and aspect and other functors like possessions and plural morphemes was conducted by Brown (1973) and De Villliers & De Villiers (1973). These studies attempted to investigate the order of acquisition of these morphemes. The main result was that children seem to follow a similar pattern of development in their acquisition. Regarding tense-aspect morphology, the results revealed that the progressive marking *be+ing* was the first to appear and telic and punctual events were encoded with past morphology in children's early production (see Figure 3.01). Acquisition in these studies is defined as the accurate suppliance in obligatory contexts, and the criterion of successful acquisition is set at 90% accurate suppliance for successful acquisition (Bronckart & Sinclair 1973).
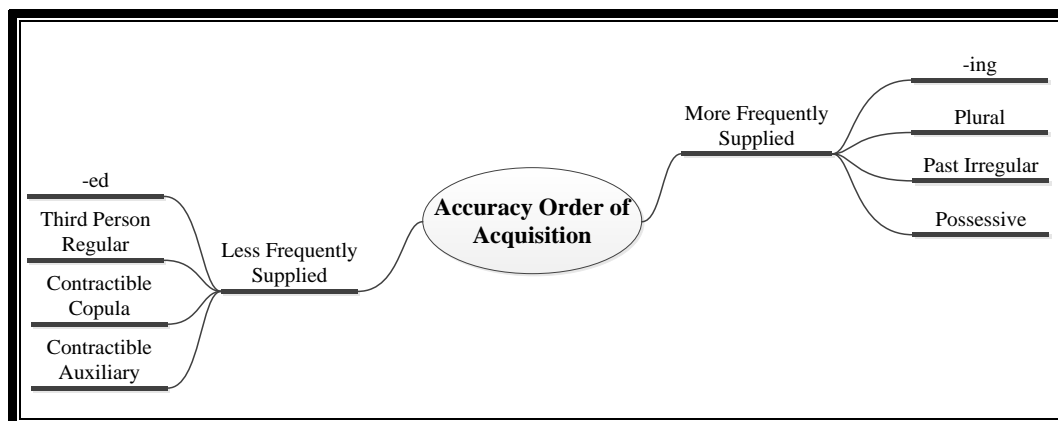
Figure 3.01: Accuracy order of acquisition in early child studies

These results motivated L2 researchers to find out whether L2 learners follow a similar pattern of development (Dulay & Burt 1973,1974; Bailey et al. 1974). L2 studies investigated the acquisition of English morphemes (verb and noun related morphology) with different L1 background, age, and learning settings.[10]

Dulay & Burt (1973) investigated whether there was a common order in the acquisition of English grammatical morphemes - 11 morphemes - by three groups of L2 Spanish children who were learners of English. Data from 151 Spanish children aged 5-8 living in the USA was elicited using the *Bilingual Syntax Measure* (BSM) which involves questions based on cartoon pictures. Results showed that child second language learners showed similar patterns of acquisition to L1 learners of English and the suppliance of English morphemes was largely similar amongst the three groups, and there were differences in the degree of suppliance between these morphemes. Dulay&Burt (1974) wanted to expand the study to include another group of children from a different L1 background (another factor). They compared the accuracy scores of two groups of children, 60 Spanish and 55 Chinese. They obtained a similar consistent frequency pattern of acquisition of verb and noun related morphology.

---

[10] According to Bardovi-Harlig(2000), the investigation of tense-aspect morphology started and emerged from the morpheme order studies during the 1970s. Thus, it was compellingly important to start with.

Bailey et al. (1974) investigated whether the same order of frequency suppliance would be mirrored in the acquisition of L2 adult learners of English. They used the same elicitation procedure to examine the accuracy of usage for English grammatical morphemes (8 morphemes) by adult L2 learners from different L1 backgrounds. The elicitation procedure was administered to 73 adult L2 learners of English from different language backgrounds, 33 Spanish-speaking adults and 40 from 11 language backgrounds. The results revealed a correlation between the Spanish group and non-Spanish group in the order of accurate usage of English grammatical morphemes, and the order of accuracy for adults was similar to what was found in L2 studies of children (Dulay & Burt 1973, 1974).

The Study	L1 and Age	Methodology	Main Findings
Dulay & Burt (1973)	3 groups of Spanish children	BSM	A similar pattern to L1 findings Similar pattern among 3 groups
Dulay & Burt (1974)	60 Spanish & 55 Chinese (all children)	BSM	Similar pattern regardless of L1
Bailey et al. (1974)	73 adult (40 Spanish &33 non-Spanish)[11]	BSM	L2 adult accuracy pattern similar to L2 children studies

Table 3.1: Survey of major early morpheme studies in L2

The conclusion (see Table 3.1) drawn from these studies is that child and adult second language learners appear to follow a similar pattern of acquisition to L1 learners. For example, progressive marking and copula be were the first to appear and telic events were largely associated with perfective markings. Acquisition in these studies is defined as accurate suppliance in obligatory contexts: 90% (following Brown (1973) for L1). The order does not indicate necessarily the absence of morphology, but does indicate invariant suppliance and inconsistent production (White 2003:178-9). In other words, L2 learners before achieving the 90 percentage criterion, they are variably producing these English

---

[11] They were from different L1s including Arabic.

functors in an inconsistent manner.[12] Subsequently, the developmental process for a particular morpheme is neglected. Moreover, it is unclear whether the order of a morpheme indicates that its semantics has been mastered as well. The single morpheme sometimes denotes a number of meanings such as the imperfective form. In addition, the morpheme can be produced as non-target-like, as in *he taked a shower last night* but the semantics is target-like.

These studies also used the same methodology (see Table 3.1) with different age groups and did not investigate the emergence of tense-aspect morphology in its own right; but it is included as an indication of morphology emergence in general. Moreover, these studies focused mainly on morphology production and paid little attention to verbal phrases or to the verb to which these morphemes attached. Thus, researchers started to focus on verbal phrases in L1 aspect studies which became the main focus of what is known as the "Aspect Hypothesis".

3.3 Aspect Hypothesis

The observation of marking inherent aspectual distinctions by verbal morphology has appeared under different names and formulations, for example Defective Tense Hypothesis (Andersen 1991); Aspect Hypothesis (Andersen & Shirai 1994,1996), and the Primacy of Aspect Hypothesis (Robison 1990) . The "Aspect Hypothesis" (henceforth AH) generally states that verbal inflections in the early stages of learning are largely influenced by aspectual distinctions inherent in verbal predicates. For example, Andersen (1991:307) pointed out that in the early stage of acquisition, only inherent aspectual distinctions are encoded by verbal morphology and not by tense or grammatical aspect. This observation that L1 and L2 learners

---

[12] The order in these studies reflects the accuracy usage and does not reflect the acquisition; studies conducted within a UG framework have started to discuss this variation and what it might imply.

in the early stages tend to restrict their morphology to certain verb classes has been consistently observed and investigated in different languages in L1: Antinucci & Miller (1976) who considered English and Italian, Bronckart & Sinclair (1973) who investigated French, Weist et al. (1984) who investigated Polish and L2 learners (Andersen 1991; Bardovi-Harlig & Reynolds 1995; Robison 1995; Salaberry 1999; for comprehensive reviews see Bardovi-Harlig 1999; 2000). The results of these studies on tense-aspect morphology led to the proposal that AH accounts for early morphological acquisition in L1 and L2 acquisition. Generally, the main principles of AH can be summarised as follows:

- Learners initially use past marking or perfective marking on telic predicates (accomplishments and achievements), eventually extending its use to activities and stative predicates.
- In languages that encode the perfective/imperfective distinction, imperfective past appears later than perfective past, and imperfective past marking begins with stative verbs and activity (both atelic), then extending to accomplishment and achievement verbs.
- In languages that have a progressive marking, initially it is used with activity predicates, then extending to accomplishment and achievement verbs.
- Progressive marking is not incorrectly overextended to stative verbs.

(Andersen & Shirai 1996:533)

AH has been enhanced and enriched by various observations obtained from language learners. For example, the progressive marking *-ing* is initially linked with durative and atelic predicates like *run, read, and walk*, while the perfective marking *-ed* is initially linked with telic and punctual events like *arrive*. Crucially, as the learners become more advanced, target -like use is incrementally established (Bardovi-Harlig 1999; Andersen & Shirai 1996). However, AH has appeared in different formulations: in its strongest version, it claims that verbal morphology is encoded by inherent lexical aspect rather than tense or grammatical aspect (Andersen 1991). In its weaker version, it claims that past inflections are predominantly attached to achievement and accomplishment verbs in early stages and imperfective past marking which emerges later is used predominantly with state-activity

verbs in the beginning (Andersen & Shirai 1996:536). In other words, learners are inclined to use verbal morphology to mark the inherent/situational aspect of the verb. This version is what Andersen (1989) called the Relative Defective Tense Hypothesis or the weaker version of the aspect hypothesis.

3.4 Aspect Hypothesis in Second Language Acquisition

First language (L1) acquisition research on aspect assumes that young children are guided by the inherent aspectual properties of the verb. For example, Bronckart and Sinclair (1973) pointed out that French children tend to use present tense markers for inherently durative/atelic verbs and past forms (*passe compose*) with telic verbs. Likewise, Antinucci and Miller (1976) found a similar tendency in longitudinal analyses of one American and seven Italian children that the past tense events were marked when they were telic. These findings were attributed to a cognitive deficit because young children do not have adult-like deictic system,[13] so they were unable to map events on a timeline (Andersen & Shirai 1996:35).[14]

The interest of the acquisition of verbal inflection in L1 has spawned numerous studies investigating the use of verbal morphology in different languages. A number of conclusions have been drawn from these studies. However, the question arises as to what the implications are of these conclusions regarding second language acquisition. The early studies on L1 acquisition concluded that children use tense morphology to mark aspect not deictic tense (See Haznedar (2007) for generative counter-evidence relating to child L2). The reason was attributed to a cognitive deficiency. As Andersen (1989) pointed out, the cognitive deficiency

---

[13] The cognitive deficit account was variously labeled as the 'Defective Tense Hypothesis', or 'Aspect Before Tense Hypothesis'. It was motivated by Piaget's framework with regard to cognitive limitations.
14 See Wagner (2001) for more recent work presenting counter evidence to this cognitive deficiency account.

account cannot be accounted for if the tendency is found in adult L2 learners. Adult L2 learners clearly have a concept of deictic tense. Furthermore, Slabakova (2001) argued against this assertion of cognitive deficiency; she pointed out that the child system is a simpler version of the adult system and "their underlying competence is no different from that of adults" (Slabakova 2001:139).[15]

Following the L1 acquisition research into aspect, similar investigations have been conducted into L2 acquisition. L2 studies of aspect have examined the developmental sequence of aspect-tense morphology under the AH.[16] Similarly, the influence of aspectual properties on the use of tense and aspect morphology has been found in L2 acquisition. Bardovi-Harlig (1999, 2000) provides a comprehensive review relating to the acquisition of L2 tense and aspect in the research literature.

The Study	L2	Elicitation Method
Robison1990,1995;Bardovi-Harlig 1995,1998; Bardovi-Harlig and Reynolds 1995	English	Conversational interview/Cross-sectional, cloze passage/Cross-sectional, conversational interview
Andersen 1991; Salaberry 1999,2000	Spanish	Longitudinal : conversational samples /oral movie narrative
Salaberry1998; Kaplan 1987	French	written film narrative/ Semi-structured interview
Shirai 1995; Shirai and Kurono 1998	Japanese	Conversational interview/Judgment task
Comajoan 1998	Catalan	Longitudinal: conversation/interview and film retells.

Table 3.2 : A number of empirical studies addressing the Aspect Hypothesis.

Table 3.2 lists a number of empirical studies into the acquisition of L2 of tense and aspect in respect of different L1 languages. The data elicitation methods range from personal narrative,

---

[15] Slabakova (2001) followed different theoretical assumptions.
[16] The study of the "Aspect Hypothesis" in L2 was started by Roger Andersen and his students in the 1980s and was extended by Bardovi-Harlig and her students in the 1990s.

to silent film retellings, to close passages. It is worth mentioning that the L1 studies used oral and spontaneous children speech samples while L2 studies used more controlled data elicitation, either spoken or written. In general, the results show the association of perfective marking with telic events and the association of imperfective marking with atelic events; tense and aspect morphology spreads to all lexical aspectual types. These studies addressed the aforementioned main principles of AH. They predicted an influence of the lexical properties of the predicates on the use of verbal inflections in the early stages of L2 learning. Then, as the learner gets more input, more target-like use is established. A number of studies have shown evidence consistent with the predictions of AH (Salaberry 2000). However; there are some inconsistencies with the predictions of AH as well (Robison 1995). Moreover, most of the research examining the aspect hypothesis has investigated uninstructed and instructed L2 learners.

For example, Andersen (1991) reported results from two untutored children− Anthony and Annette − learning Spanish in Puerto Rico over a two-year period. Andersen collected data from them at two different points. Results revealed that the preterite was used early in punctual verbs (achievements) and was then extended to accomplishments, activities, and eventually to states. The use of imperfect was the reverse: firstly it was used with states, then it was extended to activities, accomplishments, and finally to achievements. Andersen suggested eight developmental stages to illustrate how learners use verbal morphology to mark inherent lexical class. Some of these stages are observed whilst others are hypothetical guesses by Andersen (1991):

The figure shows a staircase of eight stages, from bottom to top:

- Use of present morphology for tense/aspect reference
- Emergence of perfective morphology with achievements
- Emergence of imperfective morphology with states
- Perfective morphology spreads to accomplishment predicates and imperfective to activities
- Imperfect morphology spreads to accomplishments
- Activity predicates begin to appear with perfective and imperfective morphology
- Imperfective morphology used punctual events (achievement)
- Perfective morphology used with states

An arrow labeled "Stages" points upward.

Figure 3.2: The eight developmental stages in the use of Spanish verbal morphology (Andersen 1991)[17]

The stages (see Figure 3.2) show a similar association between the semantic features of the verb and the morphological marking; the perfective marking is correlated (in emergence) with + *punctual, +telic, +dynami* whereas the imperfective marking is associated with - *punctual, -telic, -dynamic.* The developmental pattern that emerges from theses stages is that there is initially a correlation between perfective markings punctual events, and between imperfective markings and durative events. However, this association changes over time and restructuring takes place towards target-like usage as can be seen in Stage 7 and 8.

Bardovi-Harlig & Reynolds (1995) investigated the acquisition of the simple past tense by 182 adult learners of English at six levels of proficiency. All learners were classroom language learners enrolled in English intensive program relating to 15 different L1s (including Arabic, Korean, and Russian).[18] Learners were given 32 short passages which contained 62 test items and 26 distractors. Learners were given the base form of the verb and

---

[17] Andersen posited separate stages of development for achievements and accomplishments (see stage 4)
[18] The authors did not provide the Arabic results separately, but the results were discussed generally.

were asked to supply the verb with the missing inflection. The context was established by the use of adverbials and verb tense. This is a sample test item

1. Last night John (work)........ very hard. He (write) ...... two papers and (finish)....... all of his grammar homework. (Bardovi-Harlig & Reynolds 1995:122)

The target for each test item was determined by the native speaker responses (N=29 graduate students). The 62 test items were broken down by lexical class testing the simple past tense: 14 achievements, 11 accomplishments, 12 activities, and 10 states. The findings of the study revealed clear evidence that lexical aspectual class influences the sequence of acquisition of the past tense. Achievement and accomplishment verbs exhibited high levels of appropriate use of simple past even at the lowest levels of proficiency. Table 3.3 displays the use of simple past by lexical class and proficiency level:

The Level of proficiency	States	Activities	Accomplishments	Achievements
1	52.7	50.8	73.3	62.4
2	57.4	65.1	81.9	79.5
3	66.5	68.3	87	87.6
4	71.9	53.6	82.9	84.2
5	76.4	67.7	90.6	87.8
6	82.9	82.0	91.9	90.9
NS	97.6	95.7	97.8	97.3

Table 3.3: The use of simple past by lexical class and proficiency level

An examination of the alternatives to simple past used by the learners revealed the influence of lexical aspect. For activity verbs, the main competitor was the progressive. For stative verbs, the main competitor was the non-past. The results seem to show, according to the researchers, that learners treat eventive verbs (achievement and accomplishment) as the best

examples of past tense at all levels of proficiency but at a lower rate with state and activity verbs. In other words, learners are sensitive to lexical aspectual class with respect to the use of past tense.

A further examination of the meaning of the past in the learner grammar was conducted in the environment of frequency adverbs such as:

2. When George lived in Peru he (play)…... soccer every day. (Bardovi-Harlig & Reynolds 1995:118)

With the introduction of adverbs of frequency in the environment of activity verbs, the appropriate use of simple past stayed almost unchanged. However, the use of non-past increased and was the main competitor to the appropriate use of simple past. The non-past replaced the progressive as the main competitor and the most used alternative. The researchers concluded that the increased use of non-past with adverbs of frequency in the past tense contexts shows that these learners do not recognise these contexts or environments as environments for the simple past. This shows that the past tense is under-generalised in their interlanguage grammar and L2 learners cannot dissociate habituality from present or past (Bardovi-Harlig & Reynolds 1995:118).

The general conclusion the researchers reached in this study was that L2 classroom learners regardless of their native language are similar to L2 untutored learners and children in terms of being sensitive to the semantic features of the verbs in their tense use not only at the early stages of acquisition, but at higher levels of proficiency as well. However, the gap between telic and atelic predicates is narrowed with increasing proficiency level (see Table 3.3). In addition, past marking is used predominantly on telic verbs providing empirical support to part of the aspect hypothesis.

Another source of support for the aspect hypothesis came from a study conducted by Robison (1995). The study was significant for not analysing exclusively the distribution of tense-aspect morphology in the past-time contexts but also looking at the distribution of tense-aspect morphology across temporal contexts. Robison examined the predictions of AH by analysing English interviews and written samples obtained from 26 Puerto Rican college students classified into four proficiency levels based on a written test. A number of operational tests were applied to determine the lexical class of each predicate in context. Robison proposed a six-way classification: in addition to Vendler's four classes, he proposed two more classes: *punctual activity* and *punctual states*. Robison attempted to examine the developing inflections, in particular tense-aspect markers (*-s;-ing;-ed*), and how they are associated with lexical classes across proficiency levels. To provide a single measure of distributional bias that could be compared across speakers, the ratio of observed to expected frequency was calculated for each token and count type (Robison 1995:353). The results revealed that every group manifested association between morphological marking and aspectual lexical category at three key points: the association of progressive with activity verbs; the use of past on punctual events, and lack of progressive with state verbs. Contrary to AH predictions, the association of the progressive marking with activities increases with proficiency level instead of decreasing. In all four groups, progressive marking was applied to activities in non-target-like grammatical contexts like infinitive (Robison 1995:353):

> 3. (11) And She help- she help- she help to me and my sister to ***going*** at the university (S24[I])   (Robison 1995:357)

The association of the progressive marking with activity verbs increased from the lower level (Group I) to the higher level (Group IV): group I (14.5), group II (23), group III (26.2), group IV (25.8). Similarly, the use of past marking with punctual verbs increased from 16 in the

78

lower group to 50 in the higher group. The link between past and punctual events remains high at higher levels of proficiency, again contrary to the predictions of the aspect hypothesis.

With rising proficiency level, past marking spreads from its prototypical class on punctual events into other aspectual categories of durative events (accomplishments) and punctual activities. The association of *-s* with state verbs was indicated by the results. Learners at the lowest level prefer *-s* with state verbs, but at the higher levels they associate *-s* with present tense contexts. Robison (1995:363) concluded that English verb inflections for past and present tense shift from markers of lexical aspect among the lowest level to markers of tense at the highest level except for *-ing* . In other words, the association of inflections with tense markers increases with proficiency level.

The study was significant in its investigation of the distribution of tense-aspect morphology across temporal contexts whereas many studies examined exclusively the distribution in past-time contexts. However, the use of a six-way classification makes the comparison with other studies more difficult. Robison (1995:350) proposed that *notice* ought to be analysed as a 'punctual state' and *jump* should be classified a 'punctual activity':

> 4.   John is ***noticing*** a scratch on the woodwork.
> 5.   She is ***jumping.***   (Robison 1995:350)

Robison used a well-established operational test to determine the classes of the predicate such as punctual verbs which are ungrammatical for time adverbials. The above verbs (*jump, notice*) behave like other achievement verbs when these tests are applied. There is no clear syntactic evidence for why these verbs should be classified differently from Vendler's classification. The iterative /atelic quality in *jump* is because of the addition of the morpheme *-ing*, and it is not inherent quality of the predicate (Slabakova 1997). Being classified as

punctual activity in the analysis makes it difficult to see how the lowest group performs on this kind of predicate. It is found that this group is used more with progressive more than the past inflections, but this classification makes it difficult to compare the results with other existing studies. Obviously, this finding, that progressive marking should be used instead of past inflection with a predicate like *jump,* is against the predictions of the aspect hypothesis.

The findings of these studies show that the association of perfective marking with telic events and of imperfective marking with atelic events is initially preferred by L2 learners especially at the lowest proficiency levels. However, this tendency decreases with the proficiency level as L2 learners become more advanced; target-like use is incrementally established and every tense and aspect morphology eventually spreads to all other lexical classes. However, there are some reported inconsistencies with the predictions of the aspect hypothesis in the findings of these studies. Thus, the next section re-examines and analyses the predictions in general.

3.5 Criticism of the Aspect Hypothesis in L2 Acquisition

AH is generally concerned with this question: which emerges first, tense or aspect?[19] It does not explain what drives the learner to create a certain interlanguage grammar (ILG) even though there are proposals to account for this observed behaviour such as the "Distributional Bias Hypothesis" (Andersen 1991) or "Prototype Hypothesis" (Shirai & Andersen 1995). However, all proposed accounts simply restrict their description to state the observed relationship between inherent lexical aspect and tense/aspect morphology in language acquisition. For example, the "Distributional Bias Hypothesis" assumes that developmental pattern is determined by input alone. However, the findings in Huang's study (1997) reveal that learners' production and L2 input show mismatches or inconsistencies. The difference in

---

[19] Despite the fact that this study makes different assumptions from the "Aspect Hypothesis", but it is relevant to review the findings from this body of literature.

distribution between L2 learners and native speakers (reported in Huang (1997)) suggests that L2 development is not determined by input alone. Another example is the unexpected occurrence of *-ing* with achievement verbs in Rohde's study (1996) where "the progressive form does not show a distributional bias, appearing with both activities and achievements" (1996:1129). Likewise, Robison reported that 'punctual activity' like *jump* is used more with the progressive form more than the past marking. Furthermore, L2 learners receive extensive instruction of the use of perfective and imperfective markings and they are quite frequent in the input. However, the mastery of these forms apparently takes a long time and they appear at different systematic developmental stages; the preterite tense appears first and the imperfect is later.

The prototypicality account on the other hand posits that the learners initially associate inflection with the most prototypical member of each aspectual class.[20] Then, this link is relaxed and inflection spreads to the more peripheral members (Andersen & Shirai 1994:146). If the notion of prototypicality plays a role in the development of L2 tense/aspect morphology, the relevant question is how it can account for the observed sequence of emergence. For example, the progressive morphology *-ing* which has its own prototype features [+*dynamic;-telic*] emerges later than the past morphology *-ed*. In addition, the reason why the link between the inflection and the prototypical member strengthens instead of relaxing is reported in some of the findings (see Robison 1995).

In addition, AH does not usually take L2 learners' native language into account (see Slabakova (2002) for a more detailed discussion). Because AH posits that the aforementioned associations will hold universally, it predicts no role for L1 transfer or for the parametric

---

[20] Prototype Theory was developed within cognitive psychology by Eleanor Rosch (1973).

differences between L1 and L2. Therefore, it has paid little attention to the role of native language on L2 development when trying to test its predictive power.

Montrul and Slabakova (2002) pointed out that these theories (what Bardovi-Harlig (1999) labelled as the Form-Oriented Approach) focus on the interaction between lexical aspect and verbal morphology but never investigate how the correct morphology appears in the appropriate context in the production data or whether L2 learners know what the target language morphology stands for.[21] Slabakova and others within the generative approach have attempted to examine the semantic implications learners attribute to target language morphology in comprehension. Indeed, the semantics of the verb phrase appears to influence the choice of tense/aspect inflections especially in the early stages of acquisition. However, that does not tell us about underlying competence. AH describes the patterns or the observed production found in the ILG; it does not tell us how L2 learners assign these semantic meanings at the syntax-semantic interpretive interface. The semantic values L2 learners assign are later inferred. In other words, the crucial significant difference between competence and performance seems not to be taken into account. As a result, it has little to say about how components of the grammar (semantic, syntax, and morphology) interact with each other or what drives this kind of behaviour. It should go beyond superficial production (see Table 3.2) and tackle the issue of the semantic component of L2 ILG. If we are interested in the development of aspectual semantics and aspectual distinctions, production data alone cannot tell us what we need to know. L2 learners might produce target-like morphology but with non-target like interpretations similar to what is reported in L1 acquisition. For example, Wagner (2001) administered a number of experiments on English children to look deeply inside their comprehension. The findings revealed that children might

---

[21] The study was unique because it examined the predictive power of AH with interpretation data not production data alone

produce aspectual morphology that has different aspectual interpretations from adult speech. Wagner (2001) concluded that children incorrectly map grammatical aspect onto tense interpreting past tense markers including the auxiliary *was* as referring to a completed action.[22] Subsequently, researchers should test the learners' semantic interpretations of aspectual markings to understand fully the acquisition of aspect. Furthermore, elicitation techniques should be applied to elicit L2 learners' sensitivity and awareness of lexical class. Indeed, Lardiere (2003) asserted that "L2ers' lexical semantic representations of verbs in the target language are often non-native like and may reflect properties of the L1, especially in the early stages of acquisition" (2003:139). To sum up, the aspect hypothesis primarily restricts its predictions and its methodology (written or spoken samples) to superficial productions by L2 learners, and it does not tap the underlying representation in comprehension experiments. The difficulties that L2 learners encounter cannot be solely explained in terms of observing the superficial manifestations of performance. Instead we investigate how L2 learners understand or interpret aspectual morphology. Therefore, a methodology that examines what kind of interpretation is triggered by morphosyntactic marking has the potential to contribute more meaningfully to the recent debate about L2 interfaces and integrations.

This review considers it of great importance to review and consider the bulk of literature outside the generative paradigm that have examined the development of grammatical aspect in L2 acquisition. The next area of discussion is the generative-perspective on language acquisition.

---

[22] Wagner's (2001) findings obviously present counter evidence to the deficiency account (see Wagner (2001) for the whole discussion of the findings).

3.6 Generative Perspective on L2 Acquisition

The minimalist framework posits different functional projections such as T, Comp, Asp and lexical projections (that is, phrases headed by N, V ...). Functional categories are associated with features and languages may vary with respect to the realisation of functional categories or with respect to the feature strength of a given functional category. Applied to language acquisition, the task for L2 learners is to acquire these functional categories, or to acquire new features with their realisations in L2, or to acquire feature values or strengths that are different from those in L1.

These questions have been the centre of debate in the most recent investigations of the ILG of L2 learners. More importantly, the question of whether surface morphology is indicative of underlying competence has been mainly discussed in these studies. For some researchers variable suppliance of morphology is evidence of permanent syntactic deficit: the "Deficit Hypothesis" (Clahsen & Hong 1995; Meisel 1997). For other researchers, variability is the result of a developmental phenomenon due to the absence of the functional categories in ILG, but L2 full competence can be in principle attained: the "Minimal Trees Hypothesis"(MT) (Vainikka & Young-Scholten 1996). For a third group, difficulty with surface morphology is not as a result of a deficit in the underlying structure, but is a mapping problem between the underlying representation and surface morphology (Prévost & White 2000; Ionin & Wexler 2002; Haznedar & Schwartz 1997; Lardiere 2000). These researchers call for dissociation between morphological forms and underlying abstract syntactic representations. For example, Lardiere (1998b,1998a) examined in a longitudinal case study the performance of a Chinese learner of English called *Patty* whose past tense morphology production of 35% was not native-like. Nevertheless, the syntactic effects of functional morphology in her ILG, such as nominative case assignment and verb placement, were fully specified. The data suggests that

L2 speakers are able to construct complete representations for the target language, but problems in production undermine their underlying knowledge. In White's terms, the development of syntax is independent from the overt morphological development (White 2003). This position has come to be known as "Missing Surface Inflection Hypothesis", as put forward by Prévost & White (2000), amending the earlier versions like "Missing Inflection Hypothesis" (Haznedar & Schwartz 1997), and "Morphological Misreading Hypothesis" (Lardiere 1998b). Variability in this position occurs in peripheral (sub-components) components of the language faculty like the morphophonological component (Lardiere 1998b) or lexical entry access (Prévost & White 2000). All the recent approaches have taken the position that the underlying syntax is not deficit and that the observed difficulty with functional morphology might under-represent the underlying knowledge of L2 learners. For the purpose of the study, I will group them under the "non-syntactic deficits" view.

Recently, Lardiere (2008, 2009, 2012) proposed "Feature Re-assembly" (which builds on the Full Access/Full Transfer concept of Schwartz & Sprouse (1996)) that L2 learning difficulties lie in the assembly of L2 features in terms of recreating new relations between features and their morphological realisations.[23] Lardiere (2009) pointed out that successful L2 acquisition is determined by the reassembling of L2 features which are already present in the L1into new functional categories and lexical items (either added or deleted). Crucially, reassembly might take a longer time to happen or might not occur at all if the particular evidence of the feature in question is not frequently observed in the input or if it is obscured by L1 grammar. Consequently, difficulty and variability for L2 learners is a result of an inability to reassemble and configure the features in question into new lexical items or functional

---

[23] It is a new account proposed by Lardiere, however, its predictive power needs to be seriously examined using a number of grammatical structures as evidence.

categories; how they are bundled together (Lardiere 2008). Lardiere refined the previous accounts for describing the acquisition of grammatical knowledge to be reduced to feature selection and feature assembly into language-specific lexical items:[24]

6.

Language Acquisition = Feature Selection + Feature Assembly (Lardiere 2007a:241)

However, most of the research has investigated the absence or the presence of functional projections through the syntactic reflexes. Few studies have, nevertheless, investigated the semantic reflexes of functional category in L2 comprehension (Montrul & Slabakova 2002; Slabakova 2008). This shift attempts to explore the relationship between semantic competence and inflectional morphology redirecting the focus from syntax to semantics in L2 acquisition.

Building on her pioneering work on aspectual semantics, Slabakova (2008) advances another proposal which postulates that syntax and semantics flow smoothly whereas functional morphology is the *"bottleneck"* – the *tight spot* in Slabakova's terms – in the acquisition process and presents considerable difficulty for L2 learners not only at the beginning stage but at later stages as well (Slabakova 2006,2008). Particularly if there is a mismatch between L1 and L2 regarding form-meaning mappings at the *syntax-semantic* interface, functional morphology and its mappings in L2 might represent persistent difficulty for L2 learners (Slabakova 2008). However, once the functional morphology is acquired, target-like interpretations are established and attainable and L2 learners are sensitive to semantic consequences, taught or untaught (Slabakova 2003). The main tenets of the "Bottleneck" are that narrow syntax and semantic meanings are innately given – hence they represent no

---

[24] Lardiere's account (2008) is different from the "Interpretability Hypothesis" in terms that problems are anticipated with uninterpretable and interpretable features (selection is not severely restricted) and target-like representation is attainable.

difficulty (easy parts) – and that functional morphology reflects syntactic-semantic cross-linguistic variations (see   Figure 3.03). So the morphological encoding of a semantic concept might be the locus of lesser or greater difficulty in L2 acquisition and the difficulty resides in the mapping between semantics and overt morphology in particular when form-meaning mappings differ in L2 from a learner's L1 (Slabakova 2008). Slabakova pointed out that the significance of this proposal should be incorporated into classroom research tobridge the gap between the findings from theoretical SLA research and actual language teaching.
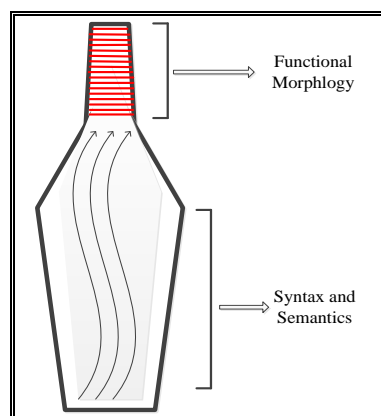
Figure 3.03: Bottleneck Hypothesis

Given the focus of this study, functional categories such as (T) and (Asp) are considered to be where differences between languages occur (Pollock 1989; Chomsky 1995). Studies of L2 acquisition within the generative approach have tended to examine whether L2 learners have access to these functional categories which are part of the UG lexicon. There are different positions and disagreements in terms of whether L2 learners can acquire these functional categories and in terms of the role of L1 into L2 development. In addition, whyL2 learners show variable use of functional morphology? Concerning all these factors, researchers appear to be divided among two basic views based on these two key issues (Slabakova 2003). The

two views are: the "Full Functional Representation" view and the "Impaired Functional Representation" view. In the "Full Functional Representation" view, it is postulated that L2 learners are able to establish the target-like representation. In other words, the target syntactic representation is acquirable and the variable use of L2 functional morphology occurs in sub-components of the language faculty. On the other hand, the "Impaired Functional Representation" view offers the opposite view that L2 learners are unable to construct the target-like representation. It argues that L2 learners cannot acquire the target syntactic representation. Therefore, the variable use of L2 morphology is a result of a deficit or impairment in the underlying abstract syntactic representation (Hawkins & Chan 1997). However, the latter position has been re-formulated and refined with recent minimalist developments into the "Interpretability Hypothesis", which argues that L2 learners cannot acquire uninterpretable features which are not instantiated in their L1 (Hawkins et al. 2008; Tsimpli & Dimitrakopoulou 2007). The next section examines these views in detail.

3.6.1 Full Functional Representation

The view claims that both functional and lexical projections are available from the start.[25] The initial-state of L2 grammar is the steady-state grammar of the mother tongue (Schwartz & Sprouse 1996,1994). In other words, all specified functional and lexical categories of the L1 are fully transferred to the initial-state grammar of L2. Thus, this view proposes that L1 has a main role in L2 grammar. The development of L2 grammar occurs when the grammar of L1 cannot parse –fail to analyse – L2 input leading to restructuring. The restructuring occurs when L1 and L2 input clashes and it is a UG-constrained restructuring. In other words, when the L1 grammar is unable to analyze the L2 input, the learner has recourse to UG to

---

[25] This view refers to the non-syntactic deficit accounts and the recent developments such the Feature Assembly Account and the Bottleneck Hypothesis. All these accounts assume the attainability of the target-like representation.

instantiate new functional categories or feature values in order to arrive at proper analysis of the L2 input. In this view, L2 learners are able to converge on the target grammar and construct a target-like representation, and the variable use of functional morphology is attributed to difficulties with overt morphological realization of functional morphology (Lardiere 1998b; Haznedar & Schwartz 1997; Prévost & White 2000); and others). Prévost & White (2000:130) concluded that "problems of adult L2 learners relate to the mapping of specific morphological forms to abstract categories". Therefore, the problem resides in the process of overt realisation of the underlying abstract knowledge.

A more recent example of experimental research which supports this view is provided by Slabakova (2003).[26] She investigated the knowledge of the functional categories in L2 from two sides: inflectional morphology and semantic consequences. She investigated the acquisition of AspP morphological and semantic reflexes in a Bulgarian instructional setting. Based on Giorgi & Pianesi (1997), she argued that English eventive verbs are inherently perfective and associated with the [+perf]feature. Thus, present tense does not denote an ongoing interpretation and bare infinitive denotes the completion of the event. On the contrary, Bulgarian verbs are not marked in the lexicon with [+perf]. Present tense, therefore, is ambiguously poised between habitual and ongoing interpretations. The significance of the study, therefore, was how L2 learners come to acquire or establish these semantic entailments or restrictions associated with the [+perf] feature when L1 grammar or explicit instruction do not provide obvious clues for these effects (see Figure 3.04). In particular, she pointed out that the first two consequences are explicitly taught in the instructional setting whereas the third one is not. This learning task is what Slabakova (2008) calls simple syntax-complex semantics where L2 syntax presents relatively little difficulty; but there are learning

---

[26] The study was selected due to its methodology and its similarity with the present study.

challenges lying at the syntax-semantic interface in figuring out which forms are mapped

onto which meanings.
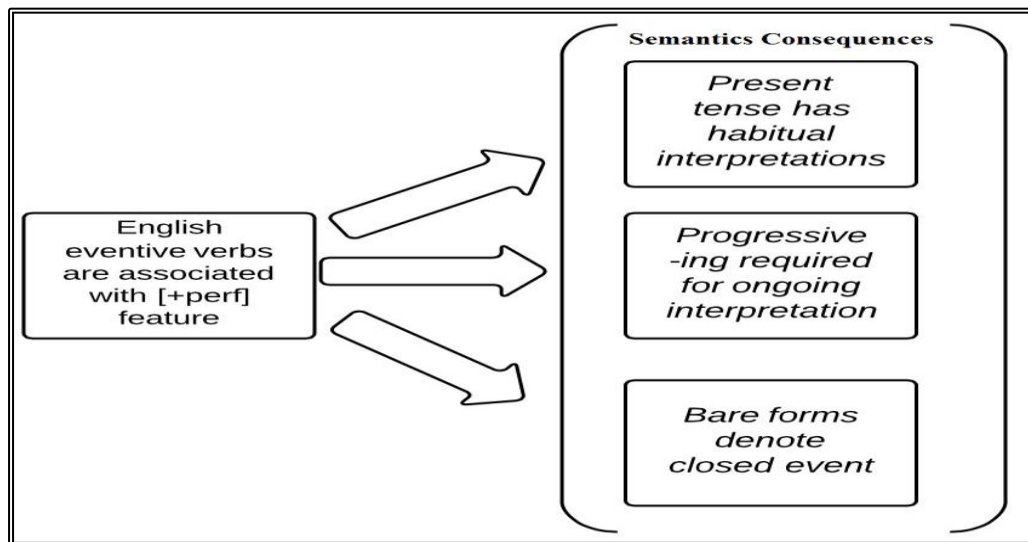
Figure 3.04: Semantic consequences for learning English viewpoint aspect by Bulgarian speakers

The main goal was to determine whether L2 learners would establish these properties that are

not instantiated in Bulgarian. She tested 112 Bulgarian-speaking learners of English and 24

native speakers. They were classified into three proficiency levels: low intermediate, high

intermediate, and advanced, based on Part One of the Michigan Test. Slabakova devised a

picture-description task (elicited-production) for ascertaining knowledge of inflectional

morphology and a truth value judgement task targeting knowledge of interpretation. In the

interpretation task, participants were asked to judge a story's context followed by a test

sentence as a true or false. The Bulgarian speakers had the story context in Bulgarian and the

test sentence in English to ascertain that they understand the context. The following example

(7) is an illustration:

> *7.*
>
> Whenever I decide to go to the seaside, my car breaks down. This happened last year, and the previous one, too. It is such a pain to start fixing the car in the middle of the trip. But I don't like calling for road assistance, I am a self-help guy. Will I be unlucky this year, too?
>
> I am fixing my own car   True (False)   (Slabakova 2003:56)

There were sixty story-sentence combinations, arranged in groups of four and targeting the three consequences. The prediction based on the "Full Functional Representation" view was that learners will be eventually able to acquire the taught semantic properties and untaught one even though it is underrepresented in L2 input.

Results from elicited production revealed that all participants except 11 intermediate participants produced target-like inflectional morphology in obligatory contexts. However, the remaining 11 participants demonstrated native-like knowledge of underlying syntax such as nominative case assignment, but error rates in inflectional morphology between 23% and 87% in obligatory contexts (c.f Lardiere 1998b). Slabakova concluded that AspP and TP are implicated in their ILGs and some participants seem to have problems at the morphological level. In the interpretation task, group results indicated that learners even from a low intermediate level were accurate in judging habitual and ongoing event stories. In other words, they were native-like in recognising the semantic consequences of simple and progressive morphology. Similarly, all learners were quite accurate in assigning a complete interpretation to a bare English verb. The individual results roughly confirmed the group findings. Slabakova concluded that semantic properties that do not come from the L1 are acquirable and obtainable in the L2 in contrast to Hawkins & Chan (1997). However, there were also two interesting findings from the study. The first is the ineffective role of instruction in Bulgarian learners' acquisition of the semantic properties of English present tenses. The low intermediate group, like other groups, performed equally on all tested

91

conditions whether taught or untaught. The second was that some learners at the individual level demonstrated knowledge of inflectional morphology before its semantic effects had been mastered. In other words, inflectional morphology is produced before it carries target-like interpretations. She attributed this finding to the instructional setting where tense and aspect inflections are highly drilled and exercised similar to the findings in Bardovi-Harlig (1992) and Montrul & Slabakova (2002). In summary, Slabakova provided an experimental support for the predictions of "Full Functional View" that L2 learners can acquire and establish the interpretable formal features associated with functional category AspP and unimpaired in L2 acquisition in contrast to Hawkins & Chan (1997). However, these findings contradict the older version of the "Interpretability Hypothesis" (see Hawkins & Chan 1997), but not with the newer version where uninterpretable features are the locus of difficulty in L2 acquisition.[27]

3.6.2   Impaired Functional Representation

The "Impaired Functional Representation" view considers access to functional categories to be severely restricted; L2 learners have access only to those features available in L1. In other words, adult learners have access to those features (or feature values) present in their L1 and functional categories which are not instantiated in the L1 will be difficult to acquire (Tsimpli & Roussou 1991; Hawkins & Chan 1997). This approach has been variously labelled as the "Failed Functional Features Hypothesis" (Hawkins & Chan 1997), the "Representational Deficit" (Hawkins & Liszka 2003), or recently the "Interpretability Hypothesis" (Tsimpli & Dimitrakopoulou 2007). The recent version argues that L2 learners cannot acquire un-interpretable features which are not instantiated in their L1 although UG principles and

---

[27] According to Hawkins & Hattori (2006), the only difference between native speaker's grammar and adult L2 learners is the activation of uninterpretable features. Therefore, the methodology in this study seems to provide apparent target-like performance and does not target the underlying interaction between interpretable and unintepretable features such as the uninterpretable feature on raising *be* auxiliary.

operations are available in L2 acquisition (Tsimpli & Dimitrakopoulou 2007; Hawkins et al. 2008). These researchers consider that access to functional category is restricted by L1 grammar and that L1 has a deterministic role in achieving native-like proficiency. Under this later development, certain formal features that are existent in the target L2 but are absent in L1 will be un-acquirable beyond the critical period for language acquisition. Tsimpli & Dimitrakopoulou stated that "uninterpretable features are subject to critical period constraints and,as such, they are inaccessible to L2 learners" (2007:224).

To sum up, the acquisition of a second language beyond some a critical period in childhood is argued to be severely constrained by the properties of L1, in particular the unavailability of unselected uninterpretable features of functional categories. Consequently, the inconsistent suppliance (even at advanced stages) of functional morphology is due to the impairment of functional categories and their features.[28] For example, L2 learners whose L1 specifies the feature [*u*past] will not face or encounter acquisitional difficulties similar to those L2 learners whose L1 lacks the feature in question, such as Chinese (Hawkins & Liszka 2003). However, properties associated with interpretable features are accessible and acquirable even if they are not instantiated in the L1 grammar and will not pose a learning difficulty. Hawkins & Hattori (2006) concluded that:

> Finally, the results of the present study suggest that caution is required in interpreting apparent target-like L2 performance as evidence for the acquisition of underlying properties of grammar assumed to be present in the grammars of native speakers. If, in a given domain, the *only difference* between a native grammar and the ILG of a late second language learner is *an uninterpretable feature*, but all other resources of UG are still available, then the performance of that learner could look very like that of a native. (2006:298, emphasis added)

Hawkins et al. (2008) provided an experimental support for the "Interpretability Hypothesis" investigating L2 learners' knowledge of aspectual interpretations to examine whether they can

---

[28] The locus of difficulty is in the uninterpretable features.

acquire syntactic operations such as verb-raising. Hawkins et al. pointed out that previous investigations of verb-raising have considered only syntactic effects and have paid no attention to its semantic consequences. Hawkins et al. argued that where raising exists in a language, a sentence in the simple present is compatible with a progressive interpretation. In a language such as English, such an interpretation is not grammatical because main verb-raising is not found in modern English. The simple present always denotes a generic or habitual interpretation but is ungrammatical with a progressive interpretation:

8. Kim reads a novel every month
9. *Kim reads a novel right now   (Hawkins et al. 2008)

Hawkins et al. argued that uninterpretable features which are not activated in L1 may no longer be accessible in L2 acquisition after a critical period. The goal was to look at L2 learners' abstract representations by investigating or exploring the semantic consequences of functional categories and their relevant formal features departing from the traditional investigation of surface manifestations in L2 development (Zobl & Liceras 1994). Indeed, recent investigations show that L2 development of abstract syntactic representations may proceed independently from their relevant superficial manifestations (Haznedar & Schwartz 1997; Ionin & Wexler 2002; Prévost & White 2000). Thus, the investigation of semantic knowledge is of great significant and it might be a better reflection (Montrul & Slabakova 2002; Gabriele et al. 2003; Slabakova 2003).

Following Adger (2003), Hawkins et al. proposed analysis of the morphosyntactic properties of tense and aspect in English based on Adger's *Agree* operation. Following Dechaine & Manfredi (2000), Hawkins et al. assumed that there is a relationship between syntactic operations and their semantic consequences. Syntactic operations such as verb-raising, T-*v* agreement and progressive raising have semantic effects particularly with regard to aspectual interpretations. The habitual and generic interpretation of the simple present/past is triggered

by T-*v* agreement and the event-in-progress/existential interpretation is triggered by T-*v* agreement plus raising occurring freely with all the types of Vendler's predicates. The tasks for L2 learners are that if they have acquired this property, they should recognise that verbs with a progressive form have a progressive interpretation and verbs in the simple present or past in English have habitual/generic interpretations.

To test the L2 learners' knowledge of the main contrasts between raised and non-raised verb constructions in English, Hawkins et al. designed an acceptability judgment task and subjects were asked to judge based on a five-point scale the appropriateness of two potential continuations of the opening context statment which favours either a progressive or a generic interpretation:

        10. Whenever Mary and Alan meet, ...
            a. they talk about linguistics until late.   -2 -1 0 +1 +2
            b. they are talking about linguistics until late.   -2 -1 0 +1 +2

The test instrument involved 60 contexts with pairs of continuations as shown in the example: 40 test cases, half present and half past, and 20 distractors. The subjects of the study were highly advanced adult learners of English based on high matched proficiency scores on the Oxford Placement Test (OPT) and their exposure to English ranged from 7 to 28 years in classroom and immersion settings. The subjects were from different backgrounds split between: L1s with no verb-raising (Japanese and Chinese) and verb-raising L1s (Arabic, French, German, and Spanish).

The overall mean rating scores for appropriate/inappropriate continuations with finite thematic verbs (habitual/generic interpretation) in the present and past tense are displayed in in Table 3.4:

The Group	Present/Appropriate	Present/Inappro	Past/Appropriate	Past/Inappro
N=10	1.95	-1.12	1.99	-1.07
Chinese=8	1.85	-0.60	1.71	-0.80

Japanese=10	1.92	-0.52	1.83	-0.42
Verb-raising=10	1.94	-0.56	1.69	-0.49

Table 3.4: The overall means for appropriate /inappropriate continuations with finite thematic verbs in the present and past

The results were interpreted in this way: each group distinguished significantly between appropriate/inappropriate uses of finite thematic verbs in the present and past. Hawkins et al. suggested that the learners recognised the contrast and the habitual/generic interpretation assigned to non-raised thematic verbs in English and disfavoured the progressive interpretation for such verbs. The results of overall mean rating scores for appropriate and inappropriate continuations involving *be+v-ing* (progressive interpretation) in the present and past are presented in Table 3.5. The results were interpreted as that each group distinguishes between contexts where a *be+v-ing* construction is appropriate and where it is not. However, Hawkins et al. pointed out that the Chinese and Japanese mean ratings of appropriate are lower than those of either the native speakers or the verb-raising group and the mean ratings of inappropriate by the verb-raising group are less strong than those of the native speakers and the Chinese and Japanese group:

The Group	be+v-ing Present		be+v-ing Past	
	Appropriate	Inappropriate	Appropriate	Inappropriate
NS	1.98	-1.55	1.74	-1.15
Chinese	1.22	-0.85	1.05	-0.61
Japanese	1.23	-0.93	1.12	-0.78
Verb-raising	1.63	-0.41	1.74	-0.28

Table 3.5: The overall means for appropriate /inappropriate continuations involving *be+-ing* in the present and past

Hawkins et al. (2008) pointed out that the results from the above tables (Table 3.5 and Table 3.4) show that L2 learners have established target representations for T and *v* because they distinguish significantly between appropriate/inappropriate continuations of the simple

present/past tense and the progressive. However, differences between the L2 groups are problematic given the fact that all these learners are at the same level. It is logically plausible that L2 speakers are making a distinction between the two properties for different reasons and it would be expected for advanced L2 speakers to perform differently depending on the L1.[29] A further examination by predicate type was conducted to reveal the differences in the responses of the non-native speakers. The examination revealed that speakers of verb-raising languages were less likely to reject a habitual interpretation for *be+v-ing* forms in all predicate types (see Table 3.5). In addition, the examination also revealed that there was a major difference in the way that the Chinese and Japanese group interpreted simple present/past and progressive *be+v-ing* with achievement predicates and the way that the native speakers and verb-raising group did with the same items. Table 3.6 shows that Chinese and Japanese speakers cannot distinguish between the use of progressive and the use of the simple present/past tense when the predicate is an achievement and the intended interpretation is a progressive reading (For similar results for Japanese speakers with achievement predicates see Gabriele 2005; Gabriele & Martohardjono 2005; Gabriele et al. 2003). In addition, in the past, they favoured thematic verbs over the use of *be+v-ing:*

The Group	Present		Past	
	be+v-ing	#thematic V	be+v-ing	#thematic V
NS	1.95	-0.70	1.53	-0.80
Chinese	0.63	0.09	0.22	0.72
Japanese	0.75	-0.05	0.33	0.45
Verb-raising	1.40	-.38	1.44	0.05

Table 3.6: The overall means for appropriate/inappropriate continuations with achievement predicate

---

[29] See White (2003a) for a comparison on this point. Further discussion is presented in section 6.2 of the discussion chapter.

Hawkins et al interpreted the findings of the study in the following ways: L2 groups seemed to recognise the contrast between the appropriate/inappropriate uses of simple present/past with thematic verbs and with *be+v-ing* progressive. In other words, their ILG seemed to make the distinction between the habitual and progressive interpretations. However, closer examinations revealed that the underlying representation of L2 groups is deviant-like and influenced by L1 grammatical representations. Hawkins et al. (2008) argued that speakers of verb-raising languages could not establish [prog] as an independent category in their underlying representation and they speculated that raising *be* is recognised as a light raising verb with "... the same interpretive consequences as thematic verb raising" (2008:348). In fact, they pointed out that this finding is "surprising" since the opposite finding of generalisation was predicted. On the other hand, Chinese and Japanese groups were less likely to accept the progressive interpretation for *be+v-ing* forms when the verb involved was achievement as shown in Table 3.6. Hawkins et al. (2008) argued that the Chinese and Japanese groups could not recognise the contrast between the use of the progressive and the use of the simple present/past because they failed to establish the uninterpretable feature [*u*Infl:*] on the progressive that forces the progressive interpretation for *be+v-ing* whatever the predicate. The groups treated *be+v-ing* as a predicate modifier restricted to occur with activity predicates as found in their L1.[30]

Hawkins et al concluded that the groups used the morphology of the target language but with the feature specifications of their L1. Although L2 learners in the study made the right distinction of simple finite tense forms and *be+v-ing*, their grammatical representations of

---

[30] *Zai* in Chinese is restricted to occurring with activity and accomplishment predicates acting as adverbial modifying the activity and accomplishment predicate with aspectual properties. The same with *-te* in Japanese which unlike *zai* in Chinese can occur with all predicate types. However, it gives different interpretations depending on the predicate type: an ongoing interpretation with activity predicate but a perfective reading with achievement predicate. In other words, *-te* is an aspectual modifier

these distinctions are different from that of those native speakers. The Chinese and Japanese speakers in particular failed to establish uninterpretable [*u*Infl:*] on the progressive and [*u*Infl:] on *v*, features that are not present in their L1. On the contrary, speakers of verb-raising languages were different from Chinese and Japanese groups in allowing *be+v-ing* forms to have a habitual interpretation irrespective of predicate type.[31] According to Hawkins et al. (2008:348), these results supported the claim that although interpretable features provided by UG are available for use in L2 acquisition, uninterpretable features that are not instantiated in L1 may be subject to a critical period and are the locus of difficulty in divergent L2 performance even at the advanced levels. In other words, these results provided an experimental support for the predictions of the new "Impaired Functional" view.

In recent years, research in SLA has investigated the interpretation and semantic consequences of the (Asp) functional category. Most of the work has been conducted in the generative framework in particular by Roumyana Slabakova. The next section will look at studies conducted by Slabakova and others that targeted the semantic reflexes of functional categories in SLA at the interfaces.

3.7 Recent Generative L2 Studies on Syntax-Semantic Interface

Previous L2 research into abstract syntactic representations has tended to focus mainly on the surface realisation of functional morphology in L2 learners production (White 2003). However, it has become clear that the presence or absence of surface manifestations might be a poor indication of whether L2 learners have acquired underlying specification or representations (Haznedar 2001). Therefore, investigations of semantic consequences are of great significance and a much better reflection. Thus, in this section, I will review recent

---

[31] Uninterpretable features are available in their L1 grammar but with a different specification. It is a strong uninterpretable feature unlike English (a weak one).

generative studies targeting the semantic consequences of functional categories and will consider as well the role of L1 in this domain.

3.7.1 Montrul and Slabakova (2002)

Montrul & Slabakova (2002) (henceforth M&S) examined the acquisition of the Spanish contrasting preterite/imperfective by native speakers of English.[32] They attempted to investigate the acquisition of the aspectual interpretations related to the functional category (AspP) in L2 ILG. Tense aspectual morphology in English and Spanish (see Figure 3.05) denotes different semantic readings. The English past progressive tense denotes an ongoing event in the past while the Spanish imperfect denotes both ongoing and habitual interpretive readings. On the other hand, the English past denotes a completed one time event and habitual interpretation while the Spanish preterite denotes only a one-time event interpretation. The preterite is used in Spanish to mark perfective aspect and denotes completed or bounded events, whereas the imperfect is used to mark imperfective aspect and denotes incomplete events.
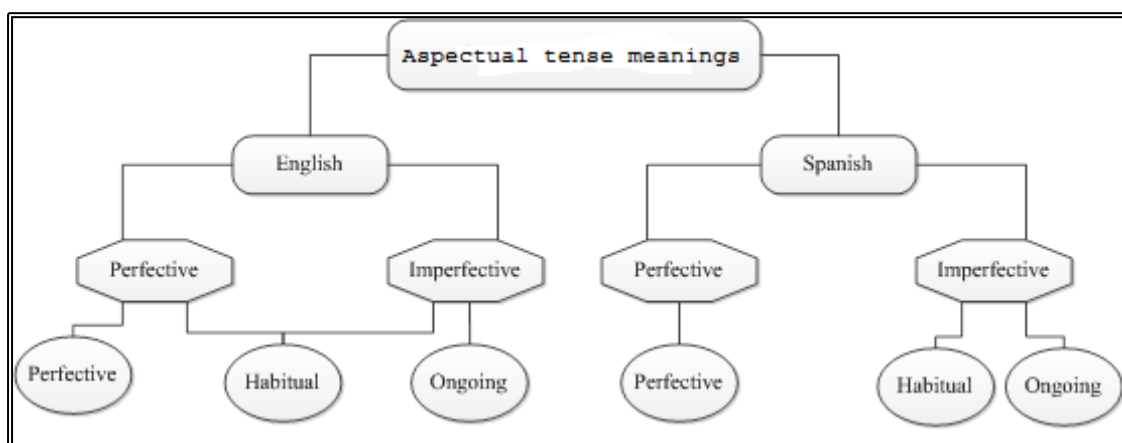
Figure 3.05: Aspectual tense meanings in Spanish/English

---

[32] See also Slabakova & Montrul (2002).

M&S followed the proposal by Giorgi & Pianesi (1997), the 'Morphosyntactic Approach' to account for the parametric variation between English and Spanish. M&S assumed that the features [+/-perfective] are not part of the feature composition of verbs in Spanish and are checked overtly in the AspP through preterite/imperfect tense morphology.[33] Therefore, the acquisition of the perfective/imperfective distinction implies the knowledge of the morphosyntax and associated semantic interpretations since the two languages have different form-meaning mappings which are calculated at the syntax-semantics interface.[34]

Given these theoretical proposals, M&S addressed two main issues. First, they investigated whether L2 acquisition of these features is possible and whether L2 learners can have access to functional categories in L2 acquisition. Secondly, they investigated whether the knowledge of morphosyntax and semantics are correlated or dissociated in L2 development?

They tested 71 adult English-speaking learners of Spanish divided into intermediate (n=42) and advanced learners (n=29) and Spanish native speakers from different Spanish-speaking countries (n=23). Learners were tested with two tasks. The first task targeted the learners' use of inflectional morphology of aspectual tenses in Spanish. Participants were asked to choose between the two forms (two options) from the context of the narrative as shown in the following:

> 11. The boss ***gave*** the money to the employee to be deposited in the bank. The employee ***worked*** for the company but ***was*** not happy with her job and ***wanted*** another job . .

The second main test instrument was a sentence conjunction judgment task which tested the semantic interpretation associated with the preterite/imperfect tenses. In this task, learners

---

[33] Montrul & Slabakova (2002) based on Giorgi & Pianesi (1997) claimed that continuous reading in English is not normally available with the eventive predicates in the present tense, while in Spanish it is. This is because Spanish does not associate the feature [+perfective] with the present tense

[34] Slabakova (2008) called this situation simple syntax - complex semantics.

were presented with a list of coordinated clauses conjoined by *but* (pero) and asked to determine on a scale ranging from -2 (contradiction) to 2 (no contradiction) whether the combination of the two clauses was sensibly possible as shown in the following examples:

12. The class was *(imp)* at 10 but started at 10:30   - 2 ,-1 ,0. 1,**2**

13. The class was *(prf)* at 10 but started at 10:30.   **– 2** ,-1, 0. 1,2

Some of the combinations were logical while others were not, in order to see whether L2 learners can distinguish possible combinations from illogical ones in Spanish and to see if they could assign target-like interpretations to the preterite/imperfect morphology.

Group results indicated that the native and L2 learners at both intermediate and advanced level successfully distinguished between the preterite and imperfect tenses with all verb classes (see Figure 3.6). However, the contrast narrows significantly in the case of the intermediate group, but the authors suggested that the overall results indicate that all groups can discriminate semantically between preterite and imperfect sentences.[35] The results were interpreted as evidence that L2 learners can acquire the aspectual distinction in Spanish and the formal features associated with the functional category AspP that is not instantiated in their L1. In other words, the formal features [+/-perfective] associated with AspP are acquirable and not impaired in L2 acquisition of Spanish.

Crucially, to look at the relationship between morphology and semantics, learners' performance on the morphology test was examined to see whether their knowledge of morphology is related to their knowledge of aspectual interpretations. Based on the results of the morphology test, learners were divided into two groups: a yes-morphology group,

---

[35] The authors attributed this depressed performance in the case of the intermediate group to the initial transfer.

consisting of learners who scored above 80% (24 or higher) on the morphology test (28 advanced +18 intermediate), and a no-morphology group, made up of learners who scored below 75 % (23 or lower) on the test (1 advanced and 28 intermediate). Then, they looked at their performance on the sentence conjunction judgment task. Results generally suggested that learners who scored 80+% accuracy on the morphology test seem to have acquired the aspectual semantics related to the preterite/imperfect morphology. On the other hand, learners who didn't show knowledge of morphology (the no-morphology group) appeared not to perform well on the sentence conjunction judgment task and not sensitive to the semantic contrast in Spanish. At the individual level – to see if the correlation between knowledge of inflectional morphology and aspectual semantics holds at this level– there was a low number of intermediate learners who were not accurate with morphology and performed well on the semantic contrast. Many learners who did not perform well on the morphology test appeared not to have acquired the aspectual distinction. In addition, all native speakers and advanced learners who performed well on the morphology test had acquired the semantic contrast in Spanish.

	Acc pret	Acc imp	Ach pret	Ach imp	Sta pre	Sta imp
NS	-0.98	1.34	-1.67	1.39	-1.5	1.55
advanced	-1.1	1.23	-1.79	0.25	-0.9	0.92
yes morph	-0.2	0.42	-0.86	-0.03	-0.32	0.53
no morph	-0.24	0.24	-0.57	0.75	-0.25	0.12
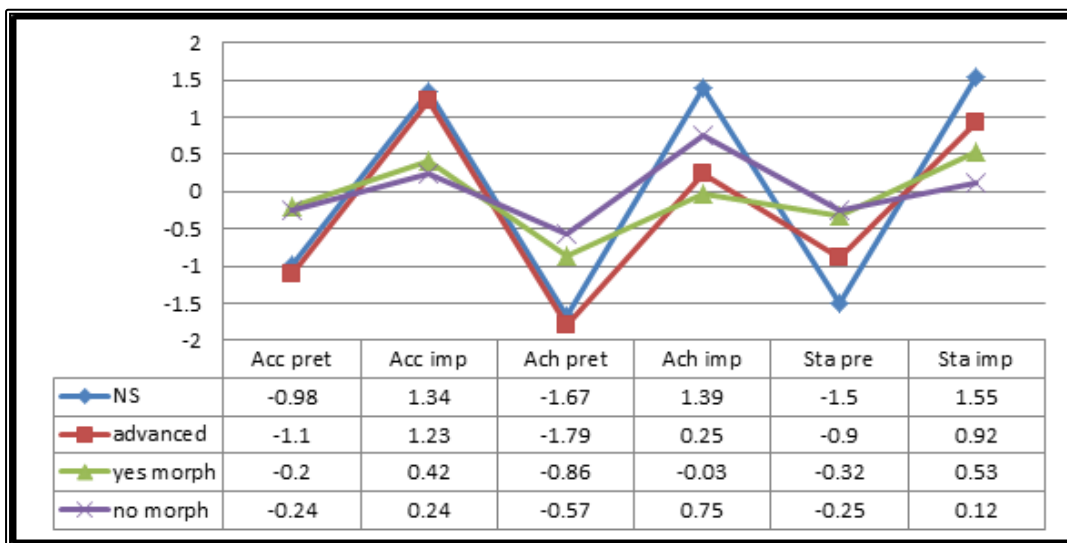
Figure 3.6: Overall means for semantic contrasts by proficiency group

Based on these results (see Figure 3.6), M&S (2002) proposed that the use of inflectional morphology – preterite/imperfect – precedes the knowledge of semantics in the aspectual domain (see Slabakova 2003; Bardovi-Harlig 1992). The results indicated that the acquisition of aspectual distinction does not come before the acquisition of inflectional morphology, even though there appears to be an important relationship between the acquisition of tense morphology and the associated semantic interpretations. Compared with the results from Lardiere and others, M&S's results suggest that there might be a close relationship between morphology and semantics unlike the results from morphology and syntax (Prévost & White 2000; Lardiere 1998b). They attributed this performance to the nature of a typical classroom task used with classroom learners. Classroom learners are typically taught and drilled in language classrooms about aspectual morphology endings. The participants of this study are classroom learners while Lardiere and others have investigated the use of inflectional morphology in naturalistic production data.

However, according to M&S(2002), the findings of the study suggest remarkably that formal features [+/-perfective] associated with the functional category AspP are acquirable in L2 Spanish even though they are not instantiated in L1 in contrast to the predictions of Hawkins & Chan (1997). However, the new account the "Interpretability Hypothesis" assumes that the uninterpretable features are inaccessible after a critical period but not the interpretable features. Similarly, the results do not support the predictions of AH within the interpretation domain. AH predicts that L2 learners would be more accurate (to be used predominantly) with the meaning of achievements and accomplishments in the preterite than in the imperfect because they are telic classes. However, the results show that the participants *interpreted* the imperfect with telic classes and distinguished between the preterite and imperfect tenses with all verb classes including state verbs.

3.7.2   Gabriele (2005)

Gabriele (2005) investigated the acquisition of aspectual knowledge by L2 Japanese learners of English studying in Japan. The study examined the role of L1 in acquiring the target aspectual interpretations. The study focused on the differences between Japanese and English in the progressive tense and how aspect is encoded in verbal morphology in both languages. The progressive form is found in both English and Japanese denoting the progressive. However; interpretations of the progressive form and the interaction with the lexical semantics of the verb are different. In English, the progressive form *be+v-ing* interacts similarly with accomplishment and achievement verbs denoting ongoing interpretation (Vendler 1967; Dowty 1979). However, the situation is not quite similar in Japanese; the Japanese form *te-iru* denotes both progressive and perfective interpretations depending on the lexical aspect of the verb. Accomplishment verbs in *te-iru* construction denote progressive interpretation. However, achievement verbs under the Japanese form *te-iru* always denote perfective readings; they are incompatible with progressive readings (see also Gabriele et al. 2003:89):

14. Taroo-ga   hasit-te-iru.

    Taroo-nom run-te-iru PRES

     'Taro is running.'

15. Hikooki-ga kuukoo –ni   tsuite-iru.

    plane-nom airport at arrive te-iru PRES

    'The plane (arrived and) is at the airport.'

According to Gabriele (2005), both pieces of morphology look superficially similar, but coping with the interpretive reading with achievement verbs is the learning challenge for L2

learners. She reviewed two proposals in the research literature to account for this difference: 1) the difference in lexical semantics between achievement verbs in English and Japanese (Ogihara 1998) – that is to say they have different lexical semantic representations – and 2) the difference in the grammatical aspect properties of *be+v-ing* and *te-iru* (McClure 1995). She adopted the second option. In McClure's analysis, the difference lies in the truth conditions of the PROG operator in both languages. In English the truth conditions of *be+v-ing* require that event (being computed) has started, but it may not have been completed. Hence, accomplishment and activity verbs are true as soon as one of their internal segments is computed.[36] However, for achievement verbs which consist of one single event, the evaluation cannot come after the change of state but at the point before the change of state has to happen (see Smith (1997) for the internal description of each verb class). On the other hand, the truth conditions of Japanese *te-iru* require that at least one of the event segments being computed to be manifested completely before the interval of evaluation. Hence, accomplishment and activity verbs are easily satisfied while achievement verbs which only include one event are satisfied when the change of state has occurred. Therefore, achievement verbs satisfy the truth conditions of *te-iru in* Japanese after the change of state has already taken place. The goal of the L2 learners is, then, to assign new formal semantic properties to the English form *be+v-ing* since the restrictions on interpretations imposed by the two morphemes are not quite the same although they superficially look alike.

Gabriele conducted a bi-direction study, but the focus here will be on Japanese-speaking learners of English. She tested 101 students; using 9 near-native speakers living in the USA and 23 native speakers as a control group. They were divided up based on an English proficiency measure (the Michigan Listening Comprehension Test) and a background

---

[36] Activity verbs are an open-ended series of segments while accomplishments are a finite series of segments leading to a final point (Smith 1997).

questionnaire. She devised a story completion task targeting interpretations of aspectual morphology in English. The story was presented aurally in English using PowerPoint and illustrated with pictures. The stories depicted events that were either complete or incomplete and ongoing. Then they were presented with a sentence visually and aurally and asked to judge on a scale from 1 (the worst) to 5 (the best):

16.
   Achievement verb: incomplete/ongoing context

   Picture 1: This is the plane to Tokyo. At 4:00 the plane is near the airport.

   Picture 2: There is a lot of wind. At 4:30 the plane is still in the air.

   Test sentence: The plane is arriving at the airport.   Predicted: 5 English; 1 Japanese

The test battery included 48 items including filler and distractors. The learning challenge in this task is to add ongoing interpretation to achievement verbs as well as to pre-empt the perfective interpretation available in their L1. Results in Table 3.7 demonstrate the mean accuracy scores for both achievement and accomplishment verbs in present progressive contexts (taken from Gabriele 2005:280):

Property	Verb Class*Context	Low	Intermediate	High	Near-native	NS
Present Progressive	Accom complete	4.4	3.9	4.34	4.7	4.8
	Accom incomplete	2.2	2.6	1.8	2.4	2.2
	Ach complete	3.6	3.4	2.5	3.25	1.5
	Ach incomplete	3.08	2.8	4	4.2	4.1

Table 3.7: Mean scores for achievement and accomplishment verbs in English present progressive (Gabriele 2005)

The results indicated that Japanese speakers performed as native speakers on accomplishment verbs as expected. They were highly accurate in both contexts from low levels and acquisition proceeded with relative ease. On achievement verbs, they appeared to add the incomplete interpretation to their ILG and to accept the progressive morphology to the native levels especially at the advanced levels as present in (16). However, rejecting the complete

interpretation seemed to cause acquisitional difficulty. They did not strongly reject the complete interpretation. In other words, they did not reject the fact that *is arriving* refers to a completed event (the opposite situation to 16). This demonstrated that L1 properties may still constrain learners' interpretations. The individual results confirmed this conclusion. In particular, half of the low and intermediate learners strongly interpreted *the plane is arriving* as actually referring to a complete event. Similarly, there were some learners at high levels of proficiency who were still accepting the complete interpretation as well.

The results were interpreted by Gabriele (2005) in the following manner: L1 seems to inhibit assigning target-like interpretations to L2 functional morphology. Japanese learners overgeneralised the perfective reading of the L1 form *te-iru* into the equivalent English *be+v-ing*. These findings seem to be compatible with the findings from Hawkins et al. (2008) that L1 seems to play a deterministic role in the acquisition of L2 aspect.

3.7.3   Chin (2006)

Chin (2006) investigated and examined the role of L1 cross-linguistically in the acquisition of semantic contrast associated with perfective and imperfective markings in both Spanish and English. She highlighted the fact that previous research indicates the effect of L1 transfer, but she pointed out that previous studies recruited L2 learners with the same L1 background but not different L1s. The aspectual marking in Chinese are quite different from those in Spanish and English. Chinese lacks tense morphology; hence, aspect is marked by the aspectual markers(Chin 2008). By contrast, English and Spanish distinguish between perfective and imperfective aspect in the past by tense morphology. With respect to the interaction between lexical and grammatical aspect, both English and Spanish are more compatible with all lexical aspect categories whereas Chinese aspectual markings are more restricted.

Two experiments were carried out: the first experiment examined the acquisition of Spanish semantic contrast by intermediate level L1 Chinese and English learners, and second targeted the acquisition of semantic contrast in English by intermediate level L1 Chinese and Spanish learners. Chin (2006) adopted the same interpretation tasks used in M&S (2002) and tested L2 learner's interpretations under L2 perfective and imperfective markings. In addition, all participants completed a language proficiency and verb morphology task in the language tested. The major aim of the study was whether L2 learners with different L2 backgrounds respond comparably to L2 aspectual markings.

The overall findings (in both experiments) revealed that intermediate level L2 learners were able accurately to recognise the semantic contrasts associated with the perfective/imperfective markings that are present in their L1, but they did not show sensitivity to the semantic contrasts which differ between their L1 and L2. In general, findings suggested that there is L1 transfer in the acquisition of the semantic contrast associated with the aspectual markings between the native languages and the target languages. In other words, if there are similarities between the two systems, the acquisition of semantic contrasts proceeds with ease, but if there are differences, L1 influences the acquisition of the semantic contrast and causes difficulty in the acquisition process.

This conclusion coincides with the findings from Gabriele et al. (2003), Gabriele (2005) and Slabakova (2000) and contradicts what was reported in M&S (2002). The study provided more evidence for language transfer in the acquisition of semantic interpretation in L2; L2 learners are more sensitive to semantic contrast if it is initiated in their L1 grammar. This study was of a great significance because it included heterogeneous L1 participants. Hence, it adds more evidence and insight in exploring the role of L1 in this domain of interpretation. However, the study suffers from a methodological problem. The participants of the study

were low proficiency learners, differing from M&S (2002). The participants of M&S were at high-intermediate to advanced levels. Accordingly, it is logically plausible to predict L1 transfer at this level. In addition, the number of the participants who detected the semantic contrast was quite small in the L2 Spanish. All these methodological problems pose serious questions regarding the conclusions drawn from this study.

3.7.4 Yamazaki-Hasegawa (2009)

Yamazaki-Hasegawa (2009) provided counterevidence to what is reported in Hawkins et al (2008).[37] Following Déchaine & Manfredi (2000) and Hawkins et al. (2008), she investigated the semantic consequences of syntactic operations involving uninterpretable features. The study was designed to test the predictions proposed by the "Interpretability Hypothesis" and the observed findings in Hawkins et al. (2008). It was reported in Hawkins et al. (2008) that Japanese-speaking learners of English were unable to acquire the target-like interpretations of simple present form and progressive marking *-ing* because they could not establish the uninterpretable feature on *v* and raising *be*. Yamazaki-Hasegawa utilised the same acceptability judgment task used by Hawkins et al. (2008). Nevertheless, the participants were asked to rate the sentences on a five point scale ranging from 1=definitely inappropriate, through 3=not sure, to 5=definitely appropriate. The participants were classified into four groups based on the Quick Placement Test.

Results indicated that Japanese speakers were able to distinguish between appropriate and inappropriate continuation regardless of the predicate type in present tense.[38] This can be taken as an indication of the establishment of the uninterpretable feature on *v* in English. However, since Japanese language has basic tense forms *–ru/ta* forms, there is a possibility

---

[37] It is a bidirectional study, but the focus will be on the Japanese → English direction because this direction examines the predictions of the "Interpretability Hypothesis".

[38] Numbers not provided in the paper.

that they might transfer form-meaning association from the L1 grammar. Nevertheless, results from the progressive *–ing* are probably a better reflection. The mean accuracy scores are presented in Table 3.8:

Verb Class	Context	Elementary	Low-Interm	Upper-Interm	Advanced	NS
activity	progressive	4.17	4.17	4.5	4.9	4.5
	#habitual	3.6	3.4	3.09	2.8	2.7
accomplishment	progressive	3.9	4.2	4.3	4.6	4.9
	#habitual	3.08	2.3	2.5	2.5	2.4
achievement	progressive	3.4	3.3	3.3	4.5	4.07
	#habitual	2.5	2.7	2.5	2.2	1.7

Table 3.8: Mean ratings of the –ing form with all predicate types (taken from Yamazaki-Hasegawa (2009)

The results demonstrated that Japanese speakers were able to distinguish between the appropriate and inappropriate continuation involving progressive *-ing*. The participants from the low intermediate level were highly accurate in distinguishing between the continuations when the predicate involved was of accomplishment and activity type. However, they failed to assign to the target-like interpretation to the achievement predicates: only the advanced learners were able to show the target-like distinction. She attributed this difference to L1 transfer of perfective interpretation with achievement verbs at intermediate levels(see Gabriele 2005). Yet, the advanced participants were able to converge on the target-like interpretations with all predicate types.

Yamazaki-Hasegawa (2009) interpreted the findings in this way: L2 learners can acquire uninterpretable features that are not instantiated in their L1 grammar. In particular, the advanced learners were successful in assigning target-like meaning to the progressive *–ing* whatever the predicate type. Thus, this shows, by implication, that they established the uninterpretable feature on *v* and *Prog* in their underlying ILG. Crucially, the findings present

counterevidence to the predictions of the "Interpretability Hypothesis" and the findings from Hawkins et al. (2008) and Gabriele (2005).

The next section reviews the recent studies and establishes how the present study is different and its theoretical and practical implications?

3.8 Implications and Statement of the Problem

The present study is going to focus on the acquisition of interpretations of aspectual and temporal markings in L2. Several attempts have been made to target the interface between temporal and aspectual forms and their semantic interpretations in L2 (Slabakova 2000; 2003; Montrul & Slabakova 2002; Gabriele 2005; Gabriele et al. 2003; Hawkins et al. 2008; Yamazaki-Hasegawa 2009). However, preliminary work on aspect and tense was conducted under the "Aspect Hypothesis". These studies however have confined their results to the role of the L1 in the acquisition of lexical aspect. They have not addressed or tapped into the underlying knowledge of L2 learners. They describe what appears first and the superficial performance (morphological usage) of L2 development but never tell us about the underlying competence: what semantic values are assigned. L2 learners might produce native-like morphology but with non-native like interpretations. Therefore, the methodology used in these studies is perhaps not indicative of L2 learners' abstract knowledge of functional categories and formal features. By contrast, studies conducted with the generative approach have shown that the relationship between overt production and the underlying morph-syntactic representation of L2 learners is independent (Lardiere 2000; Prévost & White 2000).

Apart from this paradigm, a growing number of studies have investigated second language acquisition of aspect with the generative perspective. We reviewed a number of these studies.

Montrul & Slabakova (2002), for instance, have investigated and focused on the relationship between aspectual semantics and morphology in the acquisition of Spanish. One advantage of this study is that classroom learners were involved in the experiment. However, the tasks used in the study addressed the same knowledge because L2 learners are required to choose between the aspectual forms in Spanish in the morphology task. Crucially, L2 learners must have at least a pre-existing knowledge of the aspectual contrasts in order to choose the right form of the verb. However, the study presented promising results for adult-onset L2 learners in the area of semantic interpretations with the possibility of achieving native-like proficiency.

On the other hand, Gabriele's study (2005) has focused on the acquisition of English grammatical aspect by Japanese learners. It has examined the role of L1 lexical aspect in the acquisitional process by considering the interaction of lexical and grammatical aspect in L2. However, the scale used in the study complicated the task (Slabakova 2008). The pictures used in the task depicted the process and its completion. Hence, if the learners were asked to judge the sentence as true or false, they would be directed to the truth conditions of the sentence which is the focus (Slabakova 2008). In addition, Gabriele et al focused on the acquisition of aspectual markings on activity and achievement predicates, but didn't take state and accomplishment predicates into account.

Similarly, Hawkins et al (2008) found that Japanese speakers prefer simple thematic verbs over the *be+ing* form when the predicate is achievement and the intended reading is event-in-progress. However, Hawkins et al interpreted the result as the Japanese speakers treating the *be+ing* form as the *–te* form in Japanese, that behaves like an adverbial modifier. Clearly, the results in both studies − Hawkins et al. (2008) and Gabriele (2005) − show that L1 might play a deterministic role in L2 acquisition. However, the results seem to be unclear as to

whether Japanese-speakers encounter a problem in establishing the functional category (AspP) in their ILGs (in order to establish *be+ing* as a reflex of progressive with strong unvalued feature) or they misinterpret the input and treat (map) *be+ing* like an adverbial modifier in Japanese as suggested by Hawkins et al. Further research is required at this point to test this observation and to compare all the lexical classes. Yamazaki-Hasegawa (2009) provided further research and presented empirical evidence in respect of this observation. The advanced learners in particular were able to assign target-like meaning to *be+v-ing* form with achievement verbs which was the main argument in Hawkins et al. (2008). Furthermore, there were some advanced learners in Gabriele (2005) who rejected the complete interpretation with *is arriving* which casts more doubts on the total inability to select new uninterpretable features as proposed by the new version of "Impaired Functional Representation" view.

The present study is different from the previous ones in a number of aspects. The study is going to look at both overt production (written) and the underlying knowledge. It has the potential of contributing meaningfully to theoretical discussion and providing converging evidence of L2 aspectual semantics and aspectual and temporal distinctions. Hence, it is going to extend the inquiry by Montrul & Slabakova (2002), "Aspect Hypothesis", and Hawkins et al (2008) with respect to the relationship between knowledge of overt morphosyntax and knowledge of semantic representations. As discussed in chapter two, Saudi Arabic differs from English in its lack of overt morphological realisations of temporal and aspectual contrasts. However, Saudi Arabic shares with English the underlying structure with regard to the availability of the features in question. Hence, Saudi Arabic is different

from Japanese and Chines languages which have to establish the corresponding structure in the underlying representation such as *be+ing* as a reflex of progressive feature.[39]

Moreover, it is going to include EFL and immersion students in its investigation. EFL classroom input is typically restricted in contrast to input in immersion settings, if both types of L2 learners share similar patterns of aspectual and temporal difficulties, then it should not be unequivocally related to context and input and if the attainment is not native-like, can it be attributed to persistent L1 transfer?

Therefore, the study is different from previous research and its significance is derived from its methodology and linguistic assumptions; it is going to contribute more meaningfully to the theoretical debate of L2 aspectual/temporal development.

3.9 Summary

This chapter has attempted to review the relevant literature on L1 and L2 acquisition of tense and aspect morphology. It has been argued that AH is observed in both L1 and L2 research. In L1 acquisition, children are likely to be influenced by inherent aspectual properties of verbs in the acquisition of tense-aspect morphology. The influence has been observed in L2 acquisition cross-linguistically as well. However, it has been shown that AH has focused mainly on the overt product of L2 learners and has never tapped underlying competence or targeted the interaction of components of the grammar. Apart from the "Aspect Hypothesis' data, another set of data has been reviewed within the framework of the generative approach. Crucially, the generative theoretical background has been reviewed in terms of the acquisition of functional categories, in particular T and Asp, and the role of L1. Generative studies have shown that it is a promising line of inquiry to address the semantic properties of

---

[39] See Chapter One sections 1.5 and 1.6 for more discussion.

functional categories in L2 acquisition at the syntax-semantics interface, since the presence or

the absence of surface morphology might not be an indication of L2 underlying knowledge.

The next chapter is the methodology used to investigate L2 learners' knowledge of tense and

aspect in L2 acquisition.

Methodology

4.1 Introduction

The chapter is going to describe the methodology used to investigate the acquisition of tense and aspect morphology. The chapter describes two designed tasks to test the acquisition of temporal and aspectual morphology and its related interpretations in L2. The tasks are designed to test two purposes: one, to investigate whether L2 Arabic-speaking learners are able to establish the target functional categories with their related features; and two, to investigate whether Saudi-Arabic learners of English are able to accept and use the associated interpretations that differ from their native language. The experimentation of the whole project has involved a number of piloting studies as well as the actual project. The present chapter will detail the procedure and administration of each step.

This chapter is organised as follows: Section 2 reviews the cross-linguistic facts under examination. Section 3 presents the predictions each hypothesis makes about the properties under investigation. The bio-information and the background of the participants are described in Section 4. Section 5 describes the experimental design. The procedures and the administration of the design are presented in Section 6. Finally, the procedures for coding and data analysis are described in Section7.

4.2 Cross-linguistic Facts

As discussed in Chapter 2; the aspectual distinction habitual/progressive is morphologically realised in English while it is not morphologically realised in Saudi Arabic. However, the form *ga'ad* is associated with a progressive interpretable feature and it is restricted in its distribution. Hence, the difference between English and Saudi Arabic lies in the overt morphological realisation. Therefore, Saudi-Arabic speakers learning English are required to

restructure their grammar to encode the [*u*present] and [prog] features and their related semantic interpretations. They should recognise that *v-s* is a reflex of the [*u*present] feature and it encodes a habitual present interpretation, while *-ing* is a reflex of the [prog] interpretable feature and it encodes a progressive interpretation. The acquisition task then requires an integration of a number of interacting properties including: syntax, semantics, and morphology.

Similarly, the temporal distinction between preterite and present perfect is realised morphologically in English, while it is not overtly marked in Saudi Arabic. In English, the preterite is encoded in the suffix attached to the verb *v-ed,* while the present perfect tense is realised by the auxiliary *have* and the past participle form of the verb. On the other hand, Saudi Arabic does not distinguish between this contrasts; the perfective form can encode both interpretations, with the intended interpretation achievable through adverbials and context. Therefore, Saudi-Arabic learners of English should restructure their grammar and associate the preterite with the past interpretation [*u*past] and *have+V-en* with the [perf] interpretable feature.

Accordingly, Saudi Arabic learners of English have to establish the appropriate temporal and aspectual representations for the verbal morphology they encounter in their acquisition process. They have to restructure their grammar in a native-like manner by mapping L2 morphemes onto their syntactic-semantic interpretive. In other words, they have to move from one way of representing the distinction into target-like representation (see Tables 2.3 and 2.4 Chapter 2). Figure 4.1 and Figure 4.2 illustrate how the ILG has to restructure from Saudi Arabic into the target language (English):
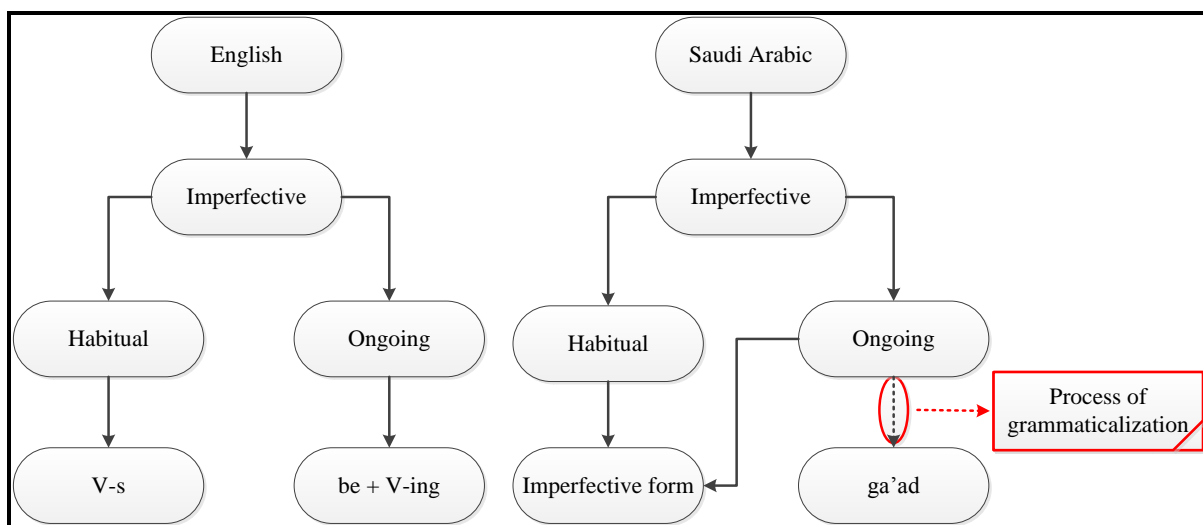
Figure 4.1: Restructuring in the imperfective form from Saudi Arabic into English
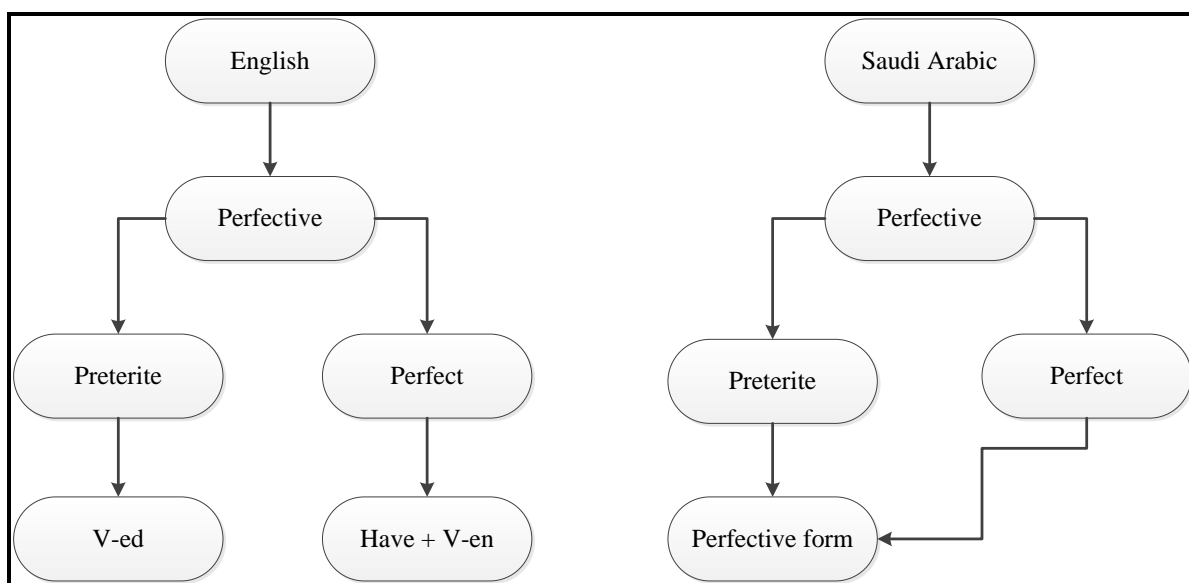
Figure 4.2: Restructuring in the perfective form from Saudi Arabic into English

4.3 L2 Predictions and Hypotheses

SLA research has been mainly concerned with the question of whether functional categories and their related features are acquirable in L2 (White 2003b)? However, the research has concentrated on syntactic knowledge, paying less attention to how syntactic knowledge might interact with other components of the grammar (White 2009). This study is going to extend the line of investigation to the area of temporal and aspectual distinction. As has been shown

in the literature, this area seems to cause relative difficulty at advanced L2 levels (Hawkins et al. 2008; Gabriele 2005; White 2003b). White (2003b) pointed out that it is difficult to analyse why some effects of L1 are easily overcome, while others cause persistent difficulties even at advanced levels of proficiency. The present study is going to consider the effect of L1 at the level of the interface. If L2 learners have restructured their grammar, they should recognise the related readings of the morphosyntactic forms in L2. In other words, L2 syntax can inform us about the related semantics (for an overview, see Slabakova (2008)). Once L2 learners have acquired their L2 syntax, the related semantics appears to be already in place (Slabakova 2008).

In the previous section, cross-linguistic facts were summarised and the acquisition tasks identified. In addition, a number of different accounts were reviewed with respect to the extent of L1 transfer and its persistence through advanced levels of L2 competence, as well as with respect to the domain of L1 transfer, namely computational syntax or the syntax-semantic interface (Gabriele 2005). Thus, the next subsections outline the predictions of these accounts respectively:

4.3.1   Aspect hypothesis

This generally predicts a role for lexical aspect in the development of tense and aspect morphology in L2 acquisition (Bardovi-Harlig 2000). In addition, it makes no assumption about the underlying syntactic representation between L1 and L2 (see Costello & Shirai 2011). Thus, it predicts:

- Differential behaviour in terms of acceptance and suppliance between durative and achievement predicates with progressive marking especially at the lower levels of proficiency. It predicts over-acceptance and over-use of progressive marking with durative predicates (Andersen & Shirai 1996).
- Differential behaviour in terms of acceptance and suppliance between telic predicates and atelic predicates with the perfective marking. Over-acceptance is predicted, as is

suppliance between achievement predicates and preterite marking, as they are inherently punctual and more compatible with preterite marking (Li & Shirai 2000).

- Given the fact that ,in principle, it is assumed that the semantic of the verb will correlate (guide) with the morphological form (Costello & Shirai 2011), it is predicted that L2 learners will perform equally on acceptance and suppliance of English verb morphology.

4.3.2   Feature re-assembly

This predicts that successful L2 acquisition is determined by *reassembling* of L2 features which already exist in L1 into new functional categories or lexical items (Lardiere 2009a,2012). Therefore, it predicts that L2 acquisition boils down to feature selection and feature assembly. However, target-like performance is attainable if the evidence for the feature in question is frequently observed and available in the input. Thus, with regard to the properties in question, it is predicted that:

- Saudi speakers will assemble the [prog] feature into *–ing* bound morphology in L2 (this also should be reflected in their semantic interpretations) and they will associate [present] with habitual interpretations (bound morphology *-s*) due to instruction and robust evidence in the input (see sections 2.6.1and 2.6.2).
- Saudi speakers will struggle to reassemble the [perfect] feature into the lexical item *have* due to L1 grammar and opaque evidence in the input , but they will manage to reassemble [past] to the past bound morphology *–ed (*see sections 2.6.1and 2.6.2) due to L1 grammar and robust evidence in the input (Lardiere 2012; 2009b).
- Differential behaviour between L2 groups depending on proficiency level, learning context (input), and the property in question.
- Target-like representation is eventually acquirable (Lardiere 2012).

4.3.3   Interpretability hypothesis

This assumes (as in its newest version) that uninterpretable features are inaccessible to L2 learners and they are subject to critical period constraints. Thus, the unavailability of uninterpretable features in the question presents an insurmountable difficulty for L2 learners. Thus, it is predicted that:

- Saudi speakers will acquire progressive/habitual distinction since the feature [prog] is already selected in their L1 and the distinction is associated with interpretable

features. However, the semantic effect of the uninterpretable features on progressive *be* and *v-* is predicted to cause overgeneralization between *v-s* and *be+v-ing* forms (see Hawkins et al. 2008).

- Saudi speakers will be able to establish the preterite/present perfect distinction because the features in question ([past] and [perf]) are already activated in their L1 grammar, and form-meaning mappings are acquirable when they are associated with interpretable features (Hawkins & Hattori 2006).
- It predicts no difference between the learning groups, except with regard to the proficiency level.
- It predicts that the target-like representation is unattainable, especially when uninterpretable features are involved.

The general prediction (see Kharma & Hajjaj 1997) is that the aspectual contrast between *v-s* and *be+v-ing* will be attainable from the early stages of development, whereas the temporal contrast between *v-ed* and *have+v-en* will present persistent difficulty for Saudi-Arabic learners of English. Table 4.1 summarises the predictions of each hypothesis at three levels: (a) predictions they make about target-like attainability; (b) predictions they make regarding the input and setting; and (c) predictions they make about acceptance vs. suppliance:

Hypothesis / Prediction	Attainability of Target-like Representation	Effect of Context and Input	Acceptance vs. Written Suppliance
Aspect Hypothesis	It assumes target-like representation is attainable	It assumes a key role for input and context. Restricted input might delay the acquistional process	It assumes no difference
Feature Re-assembly	Attainable if the evidence is available and observed in the input	It assumes an important role for input and context. Positive evidence can enhance the reassembling of features	It assumes no difference
Interpretability Hypothesis	Unattainable when uninterpretable features are involved although interpretable features in question already activated in L1	It doesn't say anything about the role of input or context , but focuses mainly on the activation of features in L1	It assumes no difference should be noted between acceptance and supplaince

Table 4.1: A summary of the prediction each of hypothesis at three levels

4.4 Participants and Contexts

In this section, the groups that were included in the project are presented with the background information and context.

4.4.1   Native speakers

Nineteen adult British English native speakers were recruited to act as a control group. Taking into account; the dialect variations between British and American English, American English speakers were not recruited and not targeted, so as to control the variations between the two dialects. British English native speakers were recruited and targeted through flyers and announcements via using email lists at the University of York in the UK.

These participants were monolingual undergraduate and postgraduate students who were studying at the University of York at the time of testing. They came from different disciplines such as philosophy, sociology, history and linguistics, except for one participant who was a teacher. The group consisted of 10 female and 9 male participants. A brief questionnaire was given to them to collect background information. The mean age of the British English native speakers was 22.

4.4.2   Immersion learners

The group of immersion learners was made up of 19 Saudi-Arabic speakers who were studying either undergraduate (1) or postgraduate (18) degrees in the UK. The group consisted only of male students studying at Leeds, Durham, Lancaster, Leicester, Nottingham, and Kent universities.

Participants were recruited through flyers and announcements at two universities (Leeds and York) or through Saudi club email lists. All these participants came to the UK to complete their higher studies, so they started as beginners at the language centres before enrolling at

the respective universities. They obtained IELTS scores ranging from 5 to 7 before attending pre-sessional or academic courses (lasting between three to fourth months) and consequently starting their programs at the respective universities.

They had spent an average of 6 years of immersion (range: 4 to 8) in the UK prior to participating in the present study. Some of them were PhD students in their final year and some in their second year, who had finished their language and Masters Courses. Only one participant was in his final graduate year after finishing his language course (2 years) and 3 year undergraduate course. The group came from different disciplines such as Accounting, Computing, Psychology, Education, and Translation and Linguistic Studies. There were only 3 participants from the Linguistic and Translation Studies; these participants were not English students at the undergraduate degree level but they were majoring in Arabic-related studies.

4.4.3   Classroom EFL learners

Thirty six adult Saudi-Arabic learners of English in Saudi Arabia were invited to take part in the project.[40] They were either students at the university level or teaching assistants in the same university. There were 6 teaching assistants majoring in either Linguistics or Translation, while the rest were university students from different levels, with different majors. All students came from either English or Medicine. Therefore, an independent measure of proficiency was administered to determine the level of proficiency of these L2 learners. The test will be described later in the design.

This group received their input from only the classroom setting. They reported that they had not left their home country to study English or any other course, although one participant reported that he did go to the UK with his family once, to take a month's holiday.

---

[40] There were more than this number but they did not complete all the three tasks. That is, they came to the lab sessions but not to other sessions, so had to be excluded.

Background information was collected from them. In addition, three of their teachers were interviewed briefly about the instruction and the level of the students.

The syllabus for the English students focused mainly on English language and its related studies such as syntax and semantics. However, there were one or two courses taught in Arabic during the academic year, but when combined together they comprised only a tiny percentage of the curriculum. In other words, almost the whole syllabus was given in English and English was the medium of instruction. The students were chosen from the 4th level (the second year) to the 8th level (the fourth and final year).

With regard to the Medicine students, they received their instruction in English. Their syllabus was mainly about medicine, but they also received English courses during the first two academic years to improve their language ability. Generally speaking, the medium of instruction was English in all courses, except for a small number of courses in the whole program where Arabic was the language of teaching. The syllabus (in terms of hours) for the Medicine students was bigger than for the English students, due to the extensive nature of field itself. The students were chosen from the 4th level (the second year) to the 10th level (the fifth year). To conclude, English was the medium of instruction and both majors received English language instruction at the university level.

The teaching assistants were interviewed briefly about their background and their experience in teaching. They reported that they had worked between 1 and 2 years in teaching English and had studied English in Saudi Arabia. They also reported that they had plans for completing their higher studies in English-speaking countries.

4.5 Experimental Design

In this section; three separate measures will be described: Cloze test, Acceptability Judgment Tasks, and Gap-Filling Tasks. All these tasks were developed specifically for this present study.

4.5.1 Background sheet

This sheet (see Appendix A) aimed at collecting biographical and background information from the participants. The focus was on Saudi speaking learners of English. The questions were about their age, their dialect background, their exposure to English and their last IELTS or TOEFL score.[41] The procedure was taken to ensure and determine the appropriate level of the learners and whether they met the test criteria to be included in the experiment.

Usually, brief interviews were conducted when the participants were filling in this sheet. The interviews were meant to serve as a warm-up and to create a friendly atmosphere. The researcher was took notes while the participants were filling in the sheet and answering the questions.

4.5.2 Cloze test

All participants, including the British English native speakers, took the independent measure of proficiency test: the Cloze test (see Appendix B). Any participant who did not take this test was excluded. This procedure resulted in leaving out some of the participants who attended the lab session.

The Cloze test was taken from Slabakova (2000,1997) and Al-thubaiti (2010). The test was adapted from American Kernel Lessons: *Advanced Student's Book by* O'Neill et al. (1981) as

---

41 Only the immersion learners reported taking IELTS or TOEFL. The EFL classroom learners did not report taking any standardised English tests. However, the researcher assumed that the TAs might have taken IELTS or TOEFL because it is a standard required procedure for completing a higher degree abroad particularly in their case.

reported in Slabakova (2000). It consisted of 3 paragraphs and 40 blanks testing and assessing the participants' proficiency. Apart from the first sentence, every seventh word was omitted throughout the whole passage, giving rise to 40 blanks to be filled in with one word. Thus, the maximum score was 40.

The Cloze test was used to assess the L2 learners' English proficiency (Tremblay 2011).[42] It was chosen due to the number of tasks involved in the experiment and the researcher did not want the experiment to be demanding and long, neither did he want to know the precise nature of grammatical structures being tested. Slabakova (2000:754) pointed out that the Cloze procedure has the potential of showing concurrent validity of overall proficiency in addition to drawing upon different language skills. Brown (1980:316) also stressed that the Cloze procedure seems to be an effective and useful tool of assessing overall second language proficiency (see also Oller 1973).

Crucially, the goal was to use an effective and easily incorporating measure within the time constraints. In addition, it should not alert the participants to the study's objectives or the grammatical areas in question (Mackey & Gass 2005). Another consideration was that because there was a group of classroom learners used to formal tasks, it was felt that they might utilise their conscious knowledge of rules (as in the Oxford Placement Test) which are formally learned and might not be part of their underlying linguistic competence (Slabakova 2000). Additionally, to avoid the pitfalls of assessing language proficiency inadequately; the Cloze test was utilised to sufficiently assess overall proficiency not only morphosyntactic but also lexical and discourse competence (Tremblay 2011).[43]

---

42 Tremblay (2011) demonstrated (in the discussion chapter) a number of practical reasons on why SLA researchers should use cloze tests.
[43] Global language tests that focus mainly on grammar may obscure some differences in other linguistic areas (Mackey & Gass 2005).

4.5.3   Acceptability judgements tasks

The first main task of the experiment was the acceptability judgment task.[44] The task was designed to determine the L2 learners' ability to recognise the temporal and aspectual morphology and to tap into L2 learners' interpretations of the temporal and aspectual morphology in the target language (see Appendix C and D).

The task was adapted from Hawkins et al. (2008) and Yamazaki-Hasegawa (2009). However, serious changes were made to the scale (see subsection 4.6.3.2 for the scale description) and the test items.[45] Because the focus was to test what a particular interpretation L2 morphology triggers in L2 acquisition, the acceptability judgment was utilised as a forced elicitation tool to understand the nature of the abstract knowledge (Mackey & Gass 2005:49).[46] In other words, to determine to what extent L2 learners possess the same abstract knowledge as the native speakers. Indeed, Sorace (1996:384-385) argued that "If learners are assumed to have IL internalized grammars, then learners' linguistic intuitions become the primary indicators of IL competence". Moreover, it can demonstrate what L2 learners' judge is possible and what is not in the target language. Accordingly, it can show the effects of L1 by investigating what L2 learners include, and what they exclude, in their ILG. This kind of information is not inferable from the natural production data alone. In fact, Mandell (1999) concluded that this methodology is a reliable measure of linguistic knowledge. Therefore, such a subtle elicitation tool can allow us to draw reasonable conclusions about the restructuring process; what L2 learners include/exclude in their ILG; and the effects of their first language (see Mandell 1999; Gass 1994).

---

[44] See Sorace (1996) and Schutze (1996) for a detailed discussion
[45] All the studies used different scale forms. Hawkins et al (2008) used a scale ranging from -2 to +2 whereas Yamazaki-Hasegawa (2009) used a scale ranging from 1 to 5.
[46] See Schutze (1996) and Keller (1998) for practical considerations when collecting this sort of data.

The first part was designed to investigate what interpretation is triggered morphosyntactically under the simple present, present progressive and past progressive. To test L2 interpretations, a number of test items were constructed crossed with three situational/lexical verb aspects: stative; achievement; durative. The test items consisted of an opening context with a dotted blank line and a potential continuation of the context, as shown in (1):

1. Bob is a big fan of old films. Whenever he is free ,……………...........

    he watches old films on DVDs.

The opposite continuation (involving the progressive morphology) was randomly embedded in the design as well:

2. Bob is a big fan of old films. Whenever he is free ,……………...........

    he is watching old films on DVDs.

The distribution of the test items in this task is summarised in the following table:

Type	Tense	Aspectual Interpretation		Description
		Continuation 1	Continuation2(opposite)	Within each type there were 8 tokens (4continuation1;4* opposite) of each verb class
1	Present	Habitual	Progressive*	
2	Present progressive	Progressive	Habitual*	
3	Past progressive	Progressive	Past*	

Table 4.2: The distribution of test items in the acceptability judgment part-1

There were a number of filler items (6 items) inserted alongside the test items within the design. Thus, the first part of the test instrument involved the tested constructions and a number of filler contexts. In fact, the design itself offers the opportunity of each continuation being a filler item to its counterpart, plus the possibility of randomisation. Table 4.3 summarises the predictions that each hypothesis makes with regard to the first part:

Hypothesis	Predictions
Aspect Hypothesis	• Over-acceptance of progressive marking *-ing* with durative marking more than achievement or stative verbs in progressive contexts. • Progressive marking is incorrectly overextended (accepted) to stative verbs such as own ;like (Andersen & Shirai 1996). • Overgeneralization of progressive marking with durative verbs in habitual contexts. • Over-acceptance of present morphology with achievement and stative verbs rather than durative verbs. • Over-acceptance and over-generalisation is predicted and based on the lexical aspect.
Feature Reassembly	• Optionality in acceptance is predicted in restructuring and reassembly process but eventually overcome. • Once reassembly is overcome, the progressive feature [prog] is accepted in progressive contexts and present tense [*u*present] is accepted in habitual contexts (no overgeneralisation) • Acceptance is not on the basis of lexical aspect or tense but syntactically driven and established.
Interpretability Hypothesis	• Overgeneralisation is predicted. • Over-generalisation of present morphology to progressive contexts. • Over-generalisation of progressive morphology to habitual contexts (Hawkins et al. 2008) • Due to the effect of uninterpretable features, the over-generalisation is seen at advanced levels. • Inability to establish the uninterpretable feature on raising *be* in present or past tense.

Table 4.3: Predictions for acceptability judgment task-1

The second part of this instrument aimed to investigate L2 learners' interpretations of simple past and present perfect morphology used with three lexical predicate types: stative, achievement, and durative. As in the first part, the second part consisted of an opening context with a dotted blank and the potential continuation of the context:

3. This farm which I own …………………………

   has belonged to our family for centuries.

The opposite continuation was inserted in the design as well:

4. This farm which I own ………………………

   belonged to our family for centuries.

The distribution of the test items in this task is summarised in Table 4.4:

Type	Tense	Temporal interpretation		Description
		Continuation 1	Continuation2(opposite)	Within each type there were 8 tokens (4continuation1;4* opposite) of each verb class
1	Past	Past	Perfect*	
2	Present perfect	Perfect	Past*	

Table 4.4: The distribution of test items in the acceptability judgment part-2

A number of filler items (6 items) were inserted in the design. Thus, the second part involved the tested constructions and 6 filler items. Table 4.5 details the predictions that each hypothesis makes with regard to the second part:

Hypothesis	Predictions
Aspect Hypothesis	• Over-acceptance of preterite marking with achievement verbs more than durative or stative verbs. • Over-generalisation of preterite marking with achievement verbs in present perfect contexts. • Over-acceptance of present perfect with stative verbs more than with achievement verbs.
Feature Reassembly	• Target-like acceptance of preterite marking with past contexts. • Over-generalisation of preterite marking in present perfect contexts. • Under-acceptance of present perfect in present perfect contexts.
Interpretability Hypothesis	• Target-like acceptance of preterite marking with past contexts. • Target-like acceptance of present perfect is predicted since the auxiliary *have* carries an interpretable feature .

Table 4.5: Predictions for acceptability judgment task 2

4.5.4   Gap-filling tasks

The second main task of the experiment was the gap-filling task. This task was designed to target the tested morphosyntactic markings in production (see Appendix E and F). The task focused on L2 learners' knowledge of temporal/aspectual morphology from a different angle. The task aimed at testing L2 learners' use of aspectual/temporal morphology in written production and comparing their use with their acceptance. In other words, the task mirrored what was investigated in the acceptability judgment task. The task involved two parts: the first targeted the use of aspectual morphology, and the second targeted the use of past /present perfect morphology. This elicitation tool can allow us to examine what kinds of difficulties L2 learners encounter in written production and measure their knowledge of grammatical forms and meanings. It was specifically designed and selected to test what is experimentally desired. Thus, it is favourably appropriate over those spontaneous natural production techniques where we might have to wait an amount of time for the desired instances to occur naturally. Moreover, the same learners across proficiency levels and learning contexts undertake a variety of tasks in order to examine the effects of EFL classroom instruction. It is widely attested that classroom learners pay more attention to their grammatical, rather than communicative, performance (Montrul & Slabakova 2002; Collins 2007; Bardovi-Harlig & Reynolds 1995). Instructed learners often supply well-formed grammatical forms in typical simple grammatical tasks, but do not perform well in the more demanding tests of semantics (Montrul & Slabakova 2002). Thus, it can allow us to observe and compare instructed learners to immersion learners and native speakers with respect to form (gap-filling) and meaning (acceptability judgment).

The first part involved a number of gap-filling sentences. The participants were required to fill in the blanks using the appropriate form of the verb. The verbs were provided uninflected

between brackets. There were a number of test items and fillers in the design. The following

examples illustrate the first part:

5. When the photo-finish appeared on the screen, Dan……………………….. (cross) the finish line
6. My father cannot come to the phone now. He ……………………………. (talk) to the neighbour.
7. She is always very excited and …………………………………... (get up) very early.

The distribution of the test items in this part is summarised in Table 4.6:

Type	Description
Present habitual	There were 3 test items per predicate class (9 items)
Present progressive	There were 4 test items per predicate class (12 items)
Past progressive	There were 4 test items per predicate class (12 items)
Filler items	There were 5 filler items targeting either past or future tenses.

Table 4.6: The distribution of test items in the gap-filling task part 1

The following table (Table 4.7) summarises the predictions that each hypothesis makes with

regard to the first gap-filling task:

Hypothesis	Predictions
Aspect Hypothesis	• Over-suppliance of progressive marking *–ing* with durative verbs more than achievement and stative verbs. • Under-suppliance of progressive marking with achievement and stative verbs. • Target-like suppliance of present tense morphology.
Feature Reassembly	• Optionality is predicted in suppliance due to restructuring and reassembly process but eventually overcome. • Target-like suppliance of the [prog] feature in obligatory contexts and regardless of tense. • Target-like suppliance of [*u*present] in obligatory contexts.
Interpretability Hypothesis	• Target-like suppliance of present morphology is predicted. • Overgeneralisation of present morphology in progressive contexts is predicted and vice versa.

Table 4.7: Predictions for gap-filling task-1

The second part was different from the first one in format. It was a gap-filling task but it was a selected reading passage and did not involve pedagogical classroom-type sentences. The passage was adapted from Al-thubaiti (2010).[47] The content of the passage was about *Dinosaurs.* The passage targeted the use of past and present perfect morphology in production. The passage contained a number of constructed blanks testing the morphology in question. In addition, there were present tense contexts in the passage to provide an additional context. Changes were made to the original passage. Time adverbials were also inserted into the passage where appropriate, to provide additional clues and contextual inferences.

 Subsequently, there were 27 constructed blanks in total: 10 present perfect contexts,[48] 11 past contexts, and 5 present tense contexts. The changes made to the passage were in various ways. For instance, the present contexts were reduced from an original number of 10 contexts to 5, and treated as distractors from the purpose of the task in order not to create a response bias. Two present perfect tense contexts were constructed with stative verbs. Present perfect adverbials were also inserted to increase the probability of the intended present perfect reading, for example *throughout the last 10 years; so far; since the 1980s.* The preterite contexts were clued with past tense contextual words such as *ago, before* to indicate past events. The verbs were provided uninflected between brackets. The distribution of the test items in this part are summarised in Table 4.8:

Type	Description
Preterite contexts	4 achievement ; 4 durative ; 3 stative verbs
Present perfect contexts	4 achievement ; 4 durative ; 2 stative verbs
Present contexts	2 achievement ; 3 stative verbs

Table 4.8: The distribution of the test items in the gap-filling task part-2

---

[47] The passage was originally taken from CAE Practice Tests Plus (Stanton & Morris 1999).

[48] It was meant to be 11 contexts but a mistake in the design resulted in 10 .

The following table (Table 4.9) summarises the predictions that each hypothesis makes with regards to the passage-filling task:

Hypothesis	Predictions
Aspect Hypothesis	- Over-suppliance of preterite marking with achievement verbs more than stative or durative in preterite contexts. - Over-suppliance of preterite marking with achievement verbs in present perfect contexts. - Over-suppliance of present perfect morphology with durative and stative verbs in present perfect contexts.
Feature Reassembly	- Target-like suppliance of preterite marking in preterite contexts. - Over-suppliance of preterite marking in present perfect contexts. - Under-supplaince of present perfect morphology in present perfect contexts.
Interpretability Hypothesis	- Target-like suppliance of preterite marking in preterite contexts. - Target-like suppliance of present perfect morphology in present perfect contexts.

Table 4.9: Predictions for gap-filling task-2

Clearly from Table 4.8, it appears clear that there was no equal distribution of predicate type across contexts. This is because the intention was to create a natural authentic text investigating the surface manifestations of the tested temporal meanings. Given these constraints, it was difficult to arrive at a distributional equality of predicate and tense type. Moreover, the second part is different from the first one in the design. The first is more like a classroom-type task, whereas the second targets use at more interpretive and communicative levels.

However, the mixing these two parts shapes the aim of this task. Both are intended to focus on the written production and performance errors L2 learners might commit with morphological forms in the surface manifestations of L2 production.

4.5.5   Comments on the design

The value of designing both tasks provides the opportunity to look at participants' use and judgments about morphological forms and semantic properties in order to arrive at converging or diverging evidence and to observe the challenges or difficulties that face L2 learners across levels and settings. White (2003b:17) pointed out that when data from different tasks and different groups converge, this suggests that we are gaining insights into the underlying knowledge of L2 learners. Therefore, this kind of design attempts to locate the source of the problems and challenges and to investigate the developmental pattern. The methodology in this study attempts to measure the written suppliance and acceptance of the overt manifestations of functional categories in L2 by manipulating different experimental factors and conditions (Ionin 2013). While the acceptability judgment task offers the potential of testing the role of L1 influence (Coppieters 1987[49]; Sorace 1996), the gap-filling task offers the possibility of obtaining a measure of participants' use of functional morphology in a situation where their production might be a predictor of how they might perform spontaneously. In addition, the gap-filling tasks are typical classroom exercises, so they can potentially examine the classroom input factor that needs to be taken into account when considering the source of challenges. The methodology is not going to focus only on the internal factors that cause and drive acquisition but also on the external factors such as the quality and t quantity of L2 input, plus the learning settings of L2 acquisition (Hulstijn 2007). Hulstijn (2007) listed a number of fundamental issues that the SLA field should address such as age and differences in learning outcomes. External factors are one of these important issues that need to be taken into consideration when conducting a research pertaining to the SLA phenomenon.

---

[49] Despite the fact that Coppieters' informants were indistinguishable in production, they had different interpretations from the ones offered by French native speakers. These interpretations were influenced by L1 grammar.

Moreover, the goal of this design was to test the different predictions made by the different accounts, while taking into account other factors that need to be considered such as input exposure and learning setting (Mackey & Gass 2005). In addition, the design can uncover the relationship between the use of morphological paradigms and the knowledge of aspectual/temporal semantics (see Montrul & Slabakova 2002). Particularly, it is likely that L2 learners might produce target-like morphology before mastering the target-like interpretations(White 2003b; Montrul 2004; Montrul & Slabakova 2002; Gabriele 2005; Bardovi-Harlig 1992, 1999; see also Early Morpheme Studies chapter 3 section 3.2).

Crucially, the design focuses on formal generative methods to collect empirical data from learners' production and comprehension of the target language to draw conclusions about their underlying knowledge (Mackey & Gass 2011). If L2 learners accept not target-like test items, this would mean they have grammatical knowledge which is different from that of a native speaker. Performance on target-like and non-target-like constructions can provide evidence for whether the underlying grammar of an L2 speaker can distinguish categorically between target and non-target constructions (Sorace 1996; White 2003a; Gass & Mackey 2007). Therefore, the methodology focuses on the recent developments of SLA by investigating the morphosyntactic and semantic properties of IL grammar (Hawkins 2009).

Overall, when combined together, the methodology, experimental tasks and selected groups, increases the explanatory power and the goals motivated by the desire to solve the practical problems, encountering Arabic speakers' learners of English as indicated by Kharma & Hajjaj (1997).

4.6 Procedures

4.6.1   First piloting

The first pilot was carried out on 8 L2 learners and 9 English speakers. The study was conducted in the UK. The same tasks were used: acceptability tasks; gap-filling tasks; and Cloze test. However, there were differences from the final tasks .For instance, the gap-filling tasks were sentence gap filling items, with no passage filling task. In the acceptability tasks, the scale was also different (see the adopted one in subsection 4.6.3.2); it was from -2 to + 2 and *I don't know* outside the scale; while the continuation sentences were presented together after the opening context was shown on Power Point:

8.   Bob is a big fan of old films. Whenever he is free,……………..........

Continuations	Inappropriate	Fairly Impossible	Appropriate	Fully Appropriate	Don't know
he watches old films on DVDs	-2	-1	+1	+2	X
he is watching old films on DVDS	-2	-1	+1	+2	X

The broad aim of the preliminary investigation was to find out whether Saudi L2 speakers encountered any difficulty in establishing aspectual and temporal representations. Out of all learners with different levels of proficiency; 3 of them were selected after three months of their arrival in the UK.

The results indicated a problem with the properties in question. The L2 learners performed differently from the native speakers. However, there were also problems with the design such as variations in native speakers' responses. Subsequently, changes were made to the scale and the presentation of the tested continuations to eliminate any test bias created by the scale or the presentations. In fact, listing both continuations together might indicate to the participant that they are actually different, despite the instruction that he/she can accept/reject

both when possible. In addition, participants including the native speakers treated the activity and accomplishment predicates the same. Thus, the decision was taken to include both predicates into one category (*durative*) in the following stages. In addition, test items that created variations in the responses of the native speakers were excluded from the final design.

4.6.2   Second piloting

The second piloting was carried out with 4 native speakers. The main goal of the procedure was to check and pilot the revised test items plus to examine the new changes made to the presentation and the scale.

The items were extensively piloted and examined with the native speakers in order to to validate the target responses in the constructed contexts. For example, in the passage gap-filling, the results indicated that no native speaker supplied the present perfect tense in the preterite context, whereas there were some instances of the preterite tense (around 11%) being supplied in the present perfect contexts. However, the native speakers largely supplied the present perfect tense (around 83%) and to a lesser degree the preterite tense in the perfect context. In addition, there were few cases of the present perfect progressive being supplied as well (2%). Therefore, the passage filling task showed that it can test what is required to be tested. It is generally believed that complete consistency is hard to achieve in some cases particularly in aspectual and temporal interpretations. For instance, Prévost (2011) reported variations in NS responses in a number of studies on the acquisition of interface phenomena. Thus, even native speakers might have variations and different intuitions about what might be possible and what might not be.

The same procedures were applied to other tasks and the results indicated that, largely, the native speakers did what was expected of them in the constructed contexts. In the

acceptability judgment tasks, the native speakers mainly accepted the intended continuations and rejected the unintended one.

The experiment tasks were previously used by a number of studies. For example, the Cloze test was adopted from Slabakova (2000) and the passage-filling was adopted from Al-thubaiti (2010). In the acceptability tasks, some of the items were taken from Hawkins et al (2008) and Yamazaki-Hasegawa (2009) even though they used different scales and presentations.[50] The replication of these tasks was essential to establish the validity of the results in the field and to increase the power of generalising the findings to a wider context (Mackey & Gass 2005:21).

4.6.3 The main study

All participants attended 2 separate testing sessions. First, they did the acceptability judgment task and then they did the Cloze test and the gap filling tasks. The following describes the chronological order of the procedures in the main study.

4.6.3.1 Brief interviews

After agreeing to participate, all participants were welcomed and scheduled to arrive at an appropriate (for them) time. The researcher started introducing himself and giving a brief explanation of the importance of the research. After this, the researcher stated the approximate amount of time required to finish the experiment. In addition, the researcher also handed out the consent form and the information sheet to participants. Those who accepted and signed the forms were admitted to the experiment.

---

[50] Personal communication via email [18/5/2011]

The interviews lasted two to three minutes to elicit background information and to prepare the participants for the first session. The participants filled out a background questionnaire in this interview as well.

4.6.3.2 Acceptability judgment task

The two acceptability judgment tasks were administered first.[51] The task was explained to the participants in a 3 minute period during which participants' questions about the task were answered. All participants were told they were doing a task about their interpretation preferences regarding certain English sentences in context (Schutze 1996; Keller 1998; Mackey & Gass 2005). The procedure aimed at collecting spontaneous data. In addition, this helped make L2 learners feel that their language proficiency was not being tested, so they could feel relaxed while doing the tasks.

The tasks were uploaded online using Qualtrics Survey Software (Qualtrics 2012). Therefore, this session was always conducted in the language lab (either in the UK or in the KSA). The first online slides provided an explanation of the scale and the presentation. It was a graphical presentation step by step of how to use the scale (pictures were inserted) and then practical (unrelated) examples of how they might use the scale were added. Example 9 shows the explanations:

9. In each test item, you can see an initial phrase followed by **a dotted line.** Underneath, there is a **continuation phrase**. For each test item, please **consider** whether the continuation phrase is **an appropriate follow-on from the initial phrase. USE** the numbers in **rating scale** below, to indicate your judgement (feeling) about how **appropriate the continuation phrase is**

The scale was illustrated below this statement in a table as follows (10):

---

[51] See Keller (1998) and Mackey & Gass (2005) for a practical guide on using acceptability judgment tasks

10.

-3	Completely unacceptable
-2	Likely to be unacceptable
-1	Possibly unacceptable
+1	Possibly acceptable
+2	Likely to be acceptable
+3	Completely acceptable
0	I don't know or can't decide

Then, they were shown practical examples of how to use the scale. After that, there were

some instructions before proceeding into the main task, as illustrated in11:

11.

- o Your reaction time is being recorded.
- o The researcher is interested in your first response. Therefore, please don't spend too much time or go back trying to change your response.
- o Feel free to use the whole scale.
- o Try to click the judgement you **Think** and **Feel** Appropriate.
- o Click here when you are ready to proceed to test questions (1)

The participants were given the time to read these instructions carefully and the instructor

was there in case of questions (Wilson & Dewaele 2010). They were instructed that their

click time was being recorded and they could not spend longer time on a particular item. This

is different from the first piloting where the task was administered using PowerPoint and the

show-time was set for 15 seconds for each item. The PowerPoint presentation was helpful in

administering the task in groups; however; the feedback that the researcher received from the

participants was that some items were longer than others and the time was not enough to read

and to answer. Therefore, the decision was taken to make the task self-paced (by clicking[52]

using the mouse), and controlling the timing needed to proceed. If a participant spent one

minute on a single item, the whole task would be longer and his/her motivation might

decrease, probably he/she might also start to get irritated. Wilson & Dewaele (2010:119)

---

[52] This was not a reaction time but clicking time because the computers were different and their computing power was consequently different as well. Calculating reaction time requires special machines set up for that purpose.

pointed out that participants should recognise the discourse of the experiment as well as enjoy completing the tasks.[53] In addition, the task aimed at eliciting the interpretations triggered by a certain morphology without exercising careful filtering and paying more attention (first response), therefore the procedure was that any participant spending more time on a single item or more than one to be eliminated from the analysis.[54] Fortunately, all participants clicked the items within a reasonable time, with no one exceeding the 30 seconds. However, the native speakers were quicker than the L2 English learners. Once they finished the first task, they received on screen a thank-you message.

Following that, the participants were given 2 to 5 minutes rest between the tasks. At the same time, they were being prepared for the second task. They were instructed that they would see the same graphical explanation about the scale, and read the same instructions as in the first task. The same procedures were applied with regard to timing; and all the participants acted within the acceptable time-limit. After they finished the task, they received a thank you message at the end as previously.

This session as whole lasted between 24 – 35 minutes. After the session, the researcher talked to the participants about their comments regarding the presentation. However, no feedback about performance was given. In addition, the researcher used the opportunity to discuss the arrangements for the second session, and to schedule an appropriate time for this to occur. At the end, they were thanked and encouraged to come again at an agreed time.

---

[53] The article is actually about "*Web questionnaires in SLA and bilingualism research",* but there were some recommendations and critical remarks that should be taken into account while performing computer-based experiments.

[54] More time meant more than 30 seconds. Initially, it was taken to be 20 seconds but some intermediate EFL learners exceeded this limit on some items. It is unclear whether this was due to the language barrier or fatigue. Nevertheless, most of the participants including the native speakers responded within 5 to 20 seconds for most of the items.

4.6.3.3 The Cloze test

The second session (usually held 1/2 days after the first session) started with the administration of the Cloze test. It was also done in the language lab and sometimes administered in groups in the language lab as well. After welcoming the participants, the session started with the administration of the Cloze test. The researcher handed out the test and asked the participants to read the instructions at the top carefully; these are shown in 12:

12.

In the following passage, some of the words have been replaced by **spaces**,
Read the complete text carefully in order to understand it, and please <u>**fill in**</u>
<u>**the blanks**</u>. Each blank must have one and **Only One Word**

The researched explained the instructions and welcomed any questions or inquiries. They were clearly instructed that there is no time limit and it is self-paced. The goal was to measure the L2 learners' global English proficiency; therefore, if there was a time limit, participants might have done the task in a hurry. In addition, the task was administered between the two main tasks in order to divert the participants' attention from the main purpose of the experiment. Once they finished, they were given a rest between 2-5 minutes.

4.6.3.4 The gap filling tasks

The second part of the second session was the gap filling tasks. The first part to be administered was the sentence gap filling part. The part was self-paced as well. However, the participants were encouraged to finish within 20 minutes. They were instructed to comprehend the sentences and respond as a native speaker might do. The instructions were at the top of the page as shown in 13:

13.

This is a **fill-in**- **the blanks** task. **Read** the sentences and **fill in** the blanks by using the verbs in **parentheses**. You must provide the appropriate form of

the verb. Please **don't go back and change** your answers, the research is
interested in **your first response**

The first two examples were filled in as an illustration as shown in 14**15**:

14. Ex .1 : I ……like…. (like) ice cream.
15. Ex.2: The kids ……are playing…… (play) in our backyard now

Participants were instructed to use only the verb between the parentheses and not use another verb that might suit the context. In addition, they were guided to provide the verb inflected when required, and could supply the appropriate auxiliaries when required, as illustrated in the examples above. The instructor answered their questions when they arose before the start of the part. Once they finished, they were given 2-5 minutes rest between the two parts.

The second part started immediately after the short rest. It started with instructions for completing the passage. They were the same instructions in the first part as illustrated in 16:

16.

This is a **fill-in- the blanks** task. **Read** the passage and **fill in** the blanks by using the verbs in **parentheses**. You must provide the appropriate form of the verb. Please **don't go back and change** your answers, the research is interested in **your first response**

They were instructed to supply the appropriate form of the verb in parentheses as shown in the first example. They were also encouraged to read the context carefully and to pay attention to the meaning of the sentences, responding as a native speaker might do. There was a list of translated words given alongside the test sheet. The list contained 15 words that might create difficulty in understanding. Crucially, the purpose of the passage was not to assess vocabulary knowledge but to assess the suppliance of the preterite/present perfect morphology. Thus, it was necessary to eliminate any difficulty that might arise from any other source such as a lack of vocabulary knowledge. The translated words eased their

understanding and enhanced their familiarity with the topic (dinosaurs). This part was also self-paced and no time limit was imposed. Once they finished, they were thanked for participating in the experiment. Table 4.10 summarises the procedures for each research point:

Research Point	Procedures
First piloting	A preliminary investigation of the difficulties that might be encounter by Saudi-Arabic learners of English
Second piloting	Piloting and validating the test items and tasks
Main study	Administering the main study in two sessions with 2or 3 days in between.

Table 4.10: A summary of the procedures of each research point

4.7 Coding and Data Analysis

The section is going to present the procedures utilised in data analysis. According to Norris & Ortega (2003), data scoring is one of the main research processes whereby learners' spoken or written L2 production is analysed in terms of summarising the observations in a way that can be theoretically interpreted in the light of what is already known. In technical terms, Messick (1995:741) defined the term score as "any coding or summarization of observed consistencies or performance regularities on a test, questionnaire, observation procedure, or other assessment devices". Therefore, repeated observations or consistencies in behaviour can constitute acceptable evidence about acquisition, underlying knowledge or transfer in SLA research (see also Sorace 1996). Therefore, these types of assessment are the vehicle for transforming these repeated observations into evidence, and the use of that evidence to make theoretical interpretations about L2 issues such as competence and transfer (Norris & Ortega 2003). For this reason, Mackey & Gass (2005) pointed out that the coding system should be as clear and s straightforward to utilise as possible. Thus, because each task of the study has

its own procedure (numerical scales or categorical types) when conducting the required analysis, each one will be discussed in detail below.

4.7.1 Cloze test

The data from the Cloze test were coded as a dichotomous choice, either plausible or implausible. It was analysed and coded using an acceptable-word criterion rather than the exact word criterion used by Slabakova (2000).[55] The decision to correct the test using the former rather than the latter technique was because some blanks could have more than one appropriate answer. In addition, the goal was to assess global proficiency, therefore, if the exact-word criterion was applied, there was a danger of losing some knowledge about L2 global proficiency.[56] For example, an L2 speaker might answer some blanks with plausible answers but not exact wording. Thus, he/she might be coded as a beginner or intermediate whereas he/she may actually be from a higher level. Besides, this acceptable-word criterion was conducive in helping eliminate the setting factor because there were groups from a classroom setting and a group from an immersion setting. Despite the fact that the exact-word criterion was easier to administer and correct, it was felt for all the reasons above that it should not be utilised.

The plausible answer was given one point and the implausible answer or no answer was given zero. The maximum score was 40 and the analysis was conducted on both the native speakers and the L2 groups. The scoring was also validated by two native speaker judges.[57] Use of Cronbach's alpha for inter-rater reliability (by the two native judges) was highly reliable at .95. The classification of the participants into proficiency groups will be discussed and presented later in the results chapter (chapter 5).

---

[55] Slabakova (2000) was concerned with the beginning levels.

[56] On averaging probability, getting the acceptable word is more likely than getting the exact word.

[57] These were two PhD students in the Linguistic department at the University of York.

4.7.2 Acceptability judgment task

The data from both acceptability judgment tasks were analysed, coded and entered into SPSS so a more detailed analysis could be performed. The analysis followed a number of procedures. First, the continuation phrases were coded as dependent variables (acceptable vs. #unacceptable). Then, they were crossed with the three predicate types broken by, tense and aspect. Finally, these procedures resulted in a number of dependent variables to be included in the analysis. For example, the following item was coded as a DurPresHab variable :

17. Bob is a big fan of old films. Whenever he is free,……………..........

    he **watches** old films on DVDs.

The variable refers to an acceptable habitual continuation with a durative predicate in the present tense giving a habitual interpretation. This variable is contrasted with a # DurPresProg variable which refers to an unacceptable progressive interpretation with a durative predicate in the present tense:

18. Bob is a big fan of old films. Whenever he is free,……………..........

    he **is watching** old films on DVDs.

The same procedures were followed in the second part. The continuation phrases were also coded as dependent variables. For example, the variable DurPerf refers to a durative verb in the present perfect tense and is contrasted with the opposite variable #DurPreterite which refers to a durative predicate with the past tense morphology.

19. We are still raising money for the scholarship drive. So far ....
    we have raised over $2,000 (DurPerf)

20. We are still raising money for the scholarship drive. So far ....
    we raised over $2,000 (#DurPreterite)

For both L2 learners and native speakers, the mean scores were calculated by counting the rating scores for each variable (such as DurPresHab), divided by the number of test tokens targeting that variable, as in the following equation in 21:

21. Mean score (acceptability judgment task) = sum of rating scores/number of tokens

For each dependent variable, the participants' scores for the related test items were averaged, taking into account the missing cells. The procedure was undertaken to code these missing cells as (xx) and not be included in the analysis. For example, if one cell is missing, the mean is going to be based on 3 (items) not 4 (items) as in the originally coding. However, the number of the missing cells was really tiny (less than 2%) in both tasks. After these procedures, each participant was assigned an average score on both continuations with the maximum accuracy ranging from +3 to -3. Then, the successful acquisition of the interpretation could be manifested in the acceptance rates of the acceptable continuation and the rejection of the unacceptable continuation. In other words, if L2 learners could display a statistical significance between both continuations for the same variable and its contrasting counterpart, successful acquisition of the interpretation (White 2003a).

4.7.3   Gap filling tasks

The data from the gap-filling task (first and second part) was analysed and coded by following a number of procedures. In the first part, the suppliance rate for aspectual morphology was calculated over the set of items per intended context. The verb form in each context was coded for aspectual inflection such as *–s; be+v-ing*. The suppliance of other forms or modals was coded as others. In addition, the suppliance of misspelled inflection such as *catchs* instead of *catches* was coded as correct whereas the suppliance of progressive

without *–ing* inflection such as *be+play* was coded as incorrect. It was also coded as incorrect if the gap was left blank or the verb supplied uninflected.

In the second part, the same procedures were followed. The data was coded by calculating the suppliance rate for the temporal morphology per intended context. The verb form was coded for tense inflection such as (*-s,-ed-, and v-en*). The suppliance of other forms or inflections was coded as others such as modals or auxiliaries. The suppliance of mis-conjugated verbs such as *digged* instead of *dug* was counted as correct, the goal being to elicit past morphology in preterite contexts rather than the exact conjugation. However, it was coded as incorrect if other inflections were supplied or if it was left blank. Similarly, the present perfect morphology, if the verbs were supplied such as *taken* but without *have/has*, they were counted as incorrect as well as if left blank. However, the suppliance of the present perfect progressive was coded under the heading of the present perfect morphology.[58]

The data from all tasks was submitted to quantitative analysis using the SPSS statistical package. There were a number of statistical tests conducted to compare and contrast the performance of all groups. For example, Repeated-Measure ANOVA was conducted to examine whether the groups could distinguish categorically between contrasting variables. The requirements for running the statistical test were checked before performing the actual test. In the results chapter, all the required tests will be reported upon and discussed as appropriate.

Figure 4.03 shows the experiment life cycle and the stages undertaken to conceptualise and operationalise the research. The first stage is involved the observation of the problem and the review of the relevant literature. The second shows the identification of the problem and the

---

[58] Both forms are considered part of the perfect context see Bardovi-Harlig (1997). In the present study, the suppliance of the present perfect progressive was mainly with the verb (*work*) see gap-filling task- 2, and a closer examination of the context indicates that both forms were highly interchangeable in that context.

task specification. Finally, there is data collection and scoring towards data analysis and interpretations:
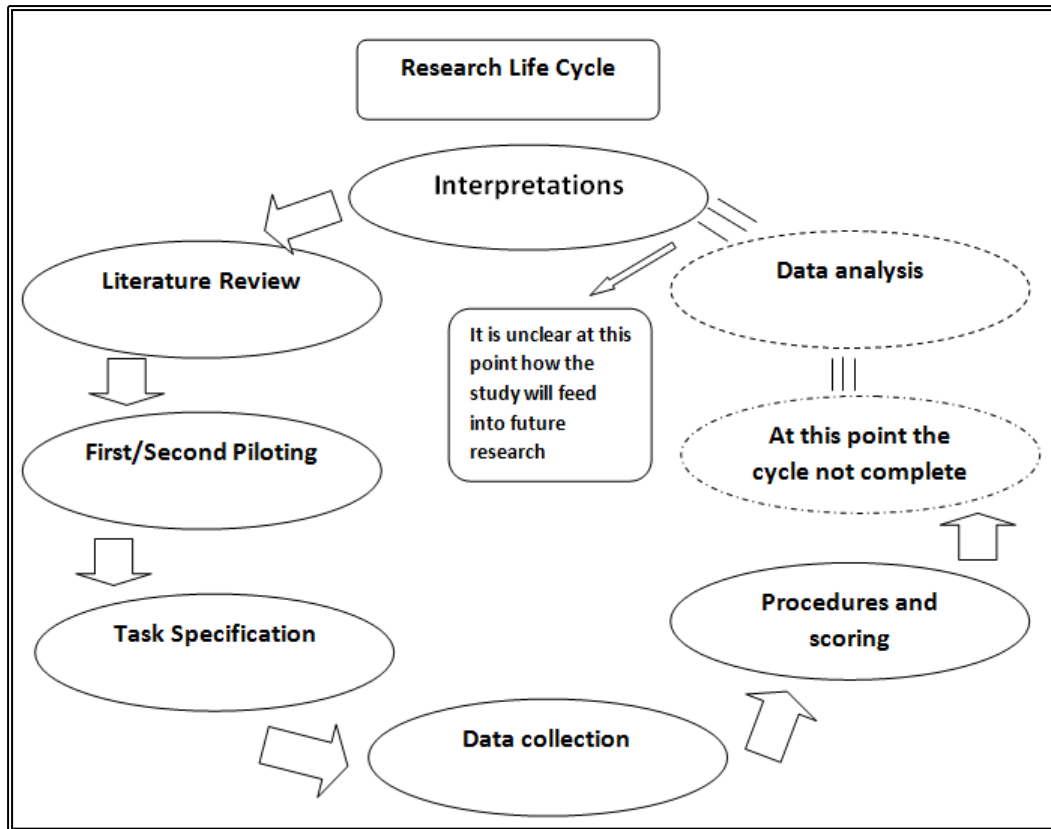
Figure 4.03: The project's life cycle stages

Therefore, this life cycle provides the opportunity to carefully elicit what kind of evidence that we need to observe, design, and score the performance of L2 learners. Purpura (2004) highlighted that the process of designing a task to elicit samples of performance to reflect underlying assumptions, and the process of administering, and scoring is to put the test into operational use. On the other hand, defining the theoretical claims and assumptions is the conceptualisation part of the research (see also Norris & Ortega (2003:720)).

4.8 Summary

In this chapter, I have outlined in detail the procedures and the methodology utilised in the study. The predictive power of L2 accounts were initially presented alongside the cross-linguistic facts. In addition, the learning settings and the background information of the participants were also described in a separate section. Finally, the coding and data analysis were illustrated for operational use in the result chapter. Thus, the next chapter is going to report the results.

Results

5.1 Introduction

This chapter will present the results obtained from the experimental tasks. The goal of this chapter is then to detail the results of these tasks by reporting the acceptance and rejection rates in each group for all the variables in question. Additionally, it will report the suppliance rates for targeted constructions in gap-filling tasks for each group. For each task, I will report descriptive statistics followed by the appropriate inferential statistics. The examinations are carried out across levels and learning contexts. Performance between acceptance (on the AJTs) and suppliance (on the gap-filling tasks) is also investigated across different conditions within each group. Individual results are also reported for further examination at the micro level of the combined results. I will start by reporting the results from the native speakers to form a baseline in order to compare the performance of L2 groups.

The chapter is organised as follows: section 5.2 summarises the proficiency levels for participants and describes the learning background. Section 5.3 demonstrates the findings in the acceptability tasks (first and second part), while section 5.4 presents the findings from the gap-filling exercises. Finally, section 5.5 attempts to integrate the findings from the two tasks and outline the relationship between them.

5.2 Proficiency level

Participants were classified based on their performance on the Cloze test and the learning context. Obviously, there were categorical differences in the input they received and the context in which English was used. Accordingly, the available resources (Cloze test and background information) were utilised to control for proficiency levels and to gain a better reflection of an individual's general proficiency. The main concern was that the score from the proficiency test should match the background information collected from the students or their teachers. For example, if a Saudi speaker living in the UK for the last five years scored at the intermediate level, there would be a contradiction between his performance on the Cloze test and his background information. It is commonly assumed that such a speaker should have reached at an advanced level due to target language exposure and academic study. Thus, the use of background information is necessary to understand the nature of an individual's general proficiency and to inspect performance on the Cloze test. Table 5.1 shows the group divisions based on the score from the Cloze test:

The Group	Mean(SD)	Range of Score	Description
NS (N=19)	38.4 (1.1)	37-40	University students in the UK
Immersion L2 (N=19)	36.5 (1.6)	34-39	Mostly PhD students who had spent almost 4 to 7 years in the UK
Advanced EFL (N=16)	34.6 (.9)	34-37	University-level English Language teaching assistants + University students majoring in English and Medicine
Intermediate EFL (N= 25)	27.1 (4.1)	17-33	University students majoring in English and medicine + 2 University-level English Language teaching assistants

Table 5.1: Groups' scores for the Cloze test and background information

As can be seen from the table, the immersion group performed as expected from their background information since it was differentiated by the context of their exposure to English. However, the classroom EFL participants were different. The groups were broken

down into two groups visually using *Visual Binning* in SPSS. The cut-off point appeared visually to be 33. Thus, any participant scoring above 33 is considered to be in the advanced group whereas 33 or a lower score is considered to be in the intermediate group.

The advanced EFL group included a number of Teaching Assistants (TAs) and University students in their 4th year in the English department and in the 4th and 5th year at the School of Medicine. Their performance matched the information collected from the three teachers who were briefly interviewed before administration of the experiment.[59] On the other hand, the intermediate EFL group involved a number of University students majoring in English (at their 4th level and 5th level) and Medicine (at their 4th, 5th, and 6th levels). However, it was strikingly surprising (relative to our predictions) to find two teaching assistants who scored in the intermediate range. They were expected to perform in the advanced EFL group based on their background information as predicted. Therefore, the decision was to include them in the intermediate group taking into account that they might represent an upper-intermediate level.

Therefore, the L2 groups were divided by (1) learning context (EFL vs. Immersion) and (2) Cloze test scores. Cloze test performance reflects the background information and it seems to also be helpful in obtaining a better reflection of the individual's general proficiency. The performance of all participants matched their background information except for two who were thought to be advanced like other TAs but performed at upper-intermediate levels.

The proficiency group divisions were further confirmed in a one-way ANOVA statistical test. It revealed a statistically significant group effect, *F* (3, 75) =77.9, *p*<.001. *Comparisons using Bonferroni's post hoc* revealed significant differences between the EFL advanced group and EFL intermediate and NS groups (mean difference (MD) = 7.5, CI = 5.1, 9.7, *p* < .05; MD = -

---

[59] This procedure enabled the researcher to find the targeted audience. The aim was to find EFL classroom learners who might seem to be at the advanced level.

3.7, CI=-6.1,-1.3, *p* < .05 respectively). On the other hand, there was no significant difference revealed between the EFL advanced group and the immersion group (MD =-1.8, CI= -4.2, .5, *p* > .05). Likewise, there was no significant difference between the immersion group and the NS group (MD =-1.8, CI= -4.2, .4, *p* > .05).

5.3 Acceptability Judgment Task (AJT)

This task targeted the interpretive knowledge of the aspectual morphology in English. In this section, I will outline the results of the first and second tasks as well as describe the analyses that were run on the test sentences.

5.3.1   AJT 1

In the design section (see section 4.5.3 Chapter 4), it was demonstrated that each test context had two continuations which were randomly inserted into the design. Hence, each continuation was counterbalanced by the continuation opposite in its interpretation so that each participant provided two responses for each opening context. The first analysis was made to determine if the participants distinguished categorically between the two continuations. Crucially, because each participant responded to both continuations for a given context, a repeated-measure ANOVA analysis was run to increase the statistical power of the analysis by incorporating repeated-measures, quite desirable in this case (see Larson-Hall 2010). In fact, this is mainly used to see how scores change on a measure with different conditions in particular where the participants are the same.[60] These analyses offer the possibility of seeing and comparing whether the learners performed more or less like native speakers under the test conditions. These are the main statistics that will be reported in the following sub-sections alongside appropriate graphical visualisation of the data. In addition,

---

[60] By doing so, the variance due to individual differences is no longer contained in the error variance (Howitt & Cramer 2008).

at the micro-level, any significant, surprising or particularly interesting results will also be presented.

5.3.1.1 The main RM ANOVA

RM ANOVA for the whole dataset is conducted with type (3 levels: habitual present, present progressive, and past progressive) x continuation (2 levels: acceptable v. unacceptable) and group is between-subject factor.[61] The results (sphericity assumed) are presented in Table 5.2 showing the main effects and interactions:

Effects and Interactions	F	df	p	$Partial\ \eta^2$
Group	1.3	3	.26	.34
Type	4.4	2	.01*	.75
Continuation	522.6	1	0*	1
Group x type	3.3	6	.005*	.92
Group x continuation	1.6	3	.17	.42
Continuation x type	14.4	2	0*	.99
Continuation x type x group	2.5	6	.02*	.83

Table 5.2: RM ANOVA statistics of difference in experimental conditions in AJT 1

The results indicated a significant effect for type and continuation but not for group. In addition, the interaction between group x continuation x type appears significant. The lack of significant effect for group (.26) indicates that participants performed to a similar level. *Pairwise comparisons* indicated that the groups treated type1 (habitual v. present progressive) and type 2 (present progressive v. habitual) similarly. However, there was a significant difference between type 3 (past progressive v. past) and type 1; although not with type 2 (see Table 4.2). Figure 5.01 demonstrates graphically the error plots for all the experimental conditions in ATJ1 by proficiency level:

---

[61] See Table 4.2 in the methodology chapter.
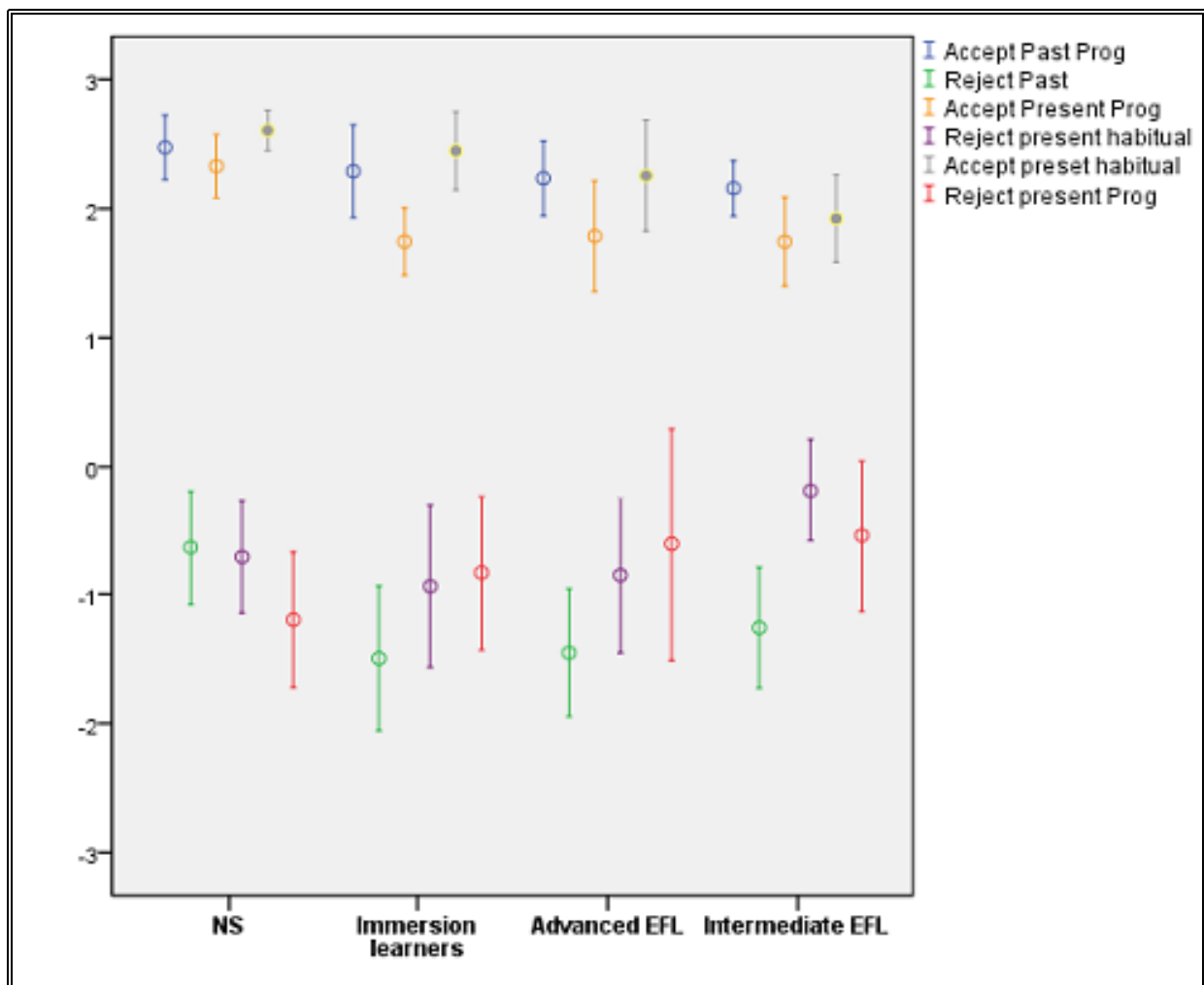
Figure 5.01: Error plots for all the experimental conditions in AJT 1 by proficiency level

The next step is to break up these statistics by type and continuation in order to look at them individually. The analysis will examine type 1, type 2 and then type 3 conditions.

5.3.1.2 Habitual vs progressive interpretation in the present tense

Sentences with present tense morphology (*v-s)* basically denote a habitual interpretation regardless of the verbal predicate whereas sentences with progressive morphology (*be+v-ing)* denote an event-in-progress interpretation. In this respect, there is a meaning contrast associated with the specific featural properties of T and *v* in English. According to Hawkins et al. (2008), the interpretation of raising/non-raising structures is considered to be associated

158

with the underlying interaction of interpretable/uninterpretable features (Déchaine & Manfredi 2000). Therefore, the assumption is that the ability of L2 learners to distinguish meaning contrast can inform us about L2 syntax in terms of how they will interpret the contrast in terms of meaning between both tested continuations.

To test awareness of meaning contrast, each opening context was presented with one of each pair of the continuations while the other one was embedded later in the design; for example, in a context such as "*Bob is a big fan of old films. Whenever he is free,………..*", the opening context privileges the habitual interpretation more than the event-in-progress one. Hence, L2 learners have to favour the habitual morphology (*he watches old films on DVDs*) and reject the progressive construction (#*he is watching old films on DVDs*) in the opposite continuation.

If L2 learners are able to restructure their IL grammar, they should demonstrate that they map the semantics of L2 to its related forms and that the semantics of the L2 is no longer constrained by the L1 grammar. Thus, they are predicted to perform as native speakers in their judgments by assigning the morphology to its related interpretation, and by implication they demonstrate that they have established the underlying L2 representations.

Figure 5.02 shows the mean ratings for the habitual continuations (accept) and progressive continuations (reject) with the present tense morphology for all the experimental groups:
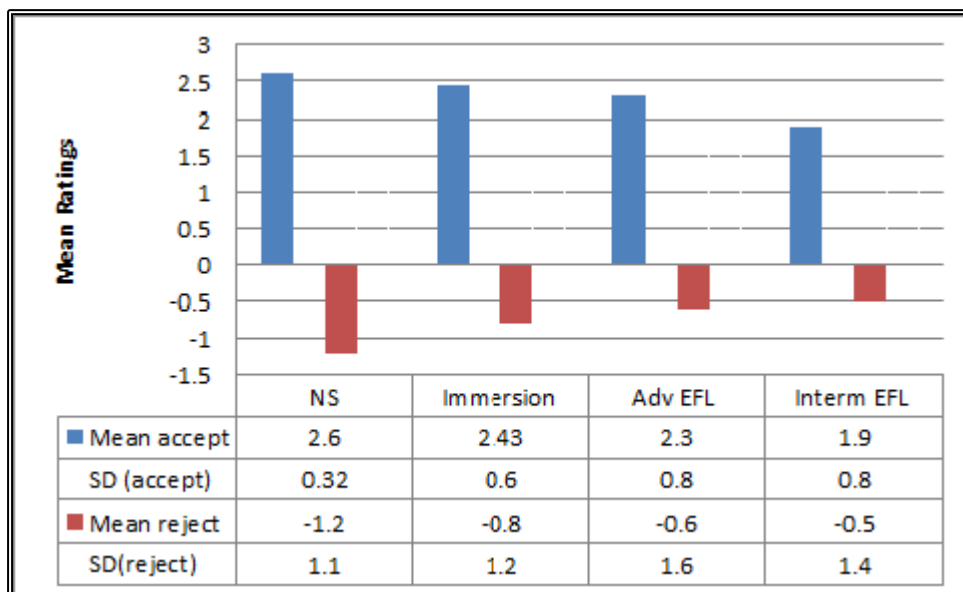
Figure 5.02: Mean ratings for habitual continuations (accept) and #progressive continuations (reject) in the present tense

The descriptive statistics show that the mean ratings for the L2 groups are high ">2" in the case of immersion and advanced EFL groups. The one-way ANOVA statistical test revealed a significant main group effect (*F (3,75) =4.12, p<.05).* Comparisons using *Bonferroni's post hoc* indicated that there was no statistically significant difference between the native speaker group and the immersion or advanced EFL groups, but there was a significant difference with the intermediate EFL group (MD=.68,CI=.12,1.2). However, the intermediate EFL group was not significantly different from the immersion or the advanced EFL groups (MD=-.5, CI=-1.1,.4; MD=-.33, CI=-.92,.25 respectively). The results in Figure 5.02 indicate that learners at the intermediate level followed the general *pattern* of accepting the habitual interpretation with the present tense morphology. However, it is too early to ascertain whether they acquired the distinction. Therefore, we must look at the opposite of the distinction. If L2 learners did establish the distinction, they should demonstrate their rejection as well.

Figure 5.02 shows the mean scores for the contrasting continuation (progressive interpretation) with present tense for all the experimental groups. The descriptive statistics

indicate that all the experimental groups rejected the progressive morphology for intended habitual interpretation but at different rates. The L2 groups seemed to perform lower than the native speaker group in their rejection pattern. However, the one-way ANOVA statistical test revealed no main group effect, *F (3,75) =.92, p=.43*. In other words, all groups rejected the opposite construction at a statistically similar rate. However, a closer inspection of the rejection pattern within each group was made to see why this lower rate of rejection occurred. Having surveyed the total means for all groups, the analysis revealed that there were only two native speakers who had positive mean ratings below .8 and one speaker scoring 0, while the rest all scored a negative mean ranging from -.5 to -2.8. Similarly, the immersion group mainly scored a negative mean ranging from -.8 to -2.5, with only five scoring a positive mean rate below .75, except one speaker who scored 2.25. The same picture emerged with the advanced EFL group. Here, five speakers scored a positive mean ranging from 2.17 to .5 while the rest scored negative means ranging from -2.8 to -.5. For the intermediate group, ten speakers scored positive means ranging from 1.58 to .19 while other participants scored a negative mean ranging from -2.5 to -.3. Therefore, the individual results seem to indicate that there is a general tendency to reject the contrasting continuation even though group mean ratings did not show strong rejection.

To examine whether L2 speakers established the distinction in meaning, we need to compare their performance on the two continuations. Mean plots in Figure 5.03 show that all groups treated the two continuations differently since there do not appear to be any overlaps (the lines are parallel). The general pattern which tends to emerge from the graph is that the gap between the contrasting continuations appears to widen with an increase in proficiency (the gap was narrow in the case of the intermediate group). Continuation (within factor) x group (between factor) RM ANOVA statistical test confirmed this finding. It revealed (sphericity

assumed) that there was a statistically significant continuation effect, $F(1,75)=249.8, p < 0.001$, *Partial η^2* =.8. The power to find differences is high and the effect size is quite high as well. However, the interaction between group x continuation was not significant, $F(3)=2.34, p= 0.08$, *Partial η^2* =.08. *Pairwise comparisons* indicated that all groups treated the contrasting continuations significantly different.

In sum, the results indicate that a distinction between both continuations exists. Participants had much less difficulty in accepting the habitual continuation. However, we must recognize that scores on the progressive continuation were not as high as predicted. Interestingly, even in the native speaker group, there were participants who accepted the progressive continuation, although the number is small and tiny compared to the general tendency of the responses.
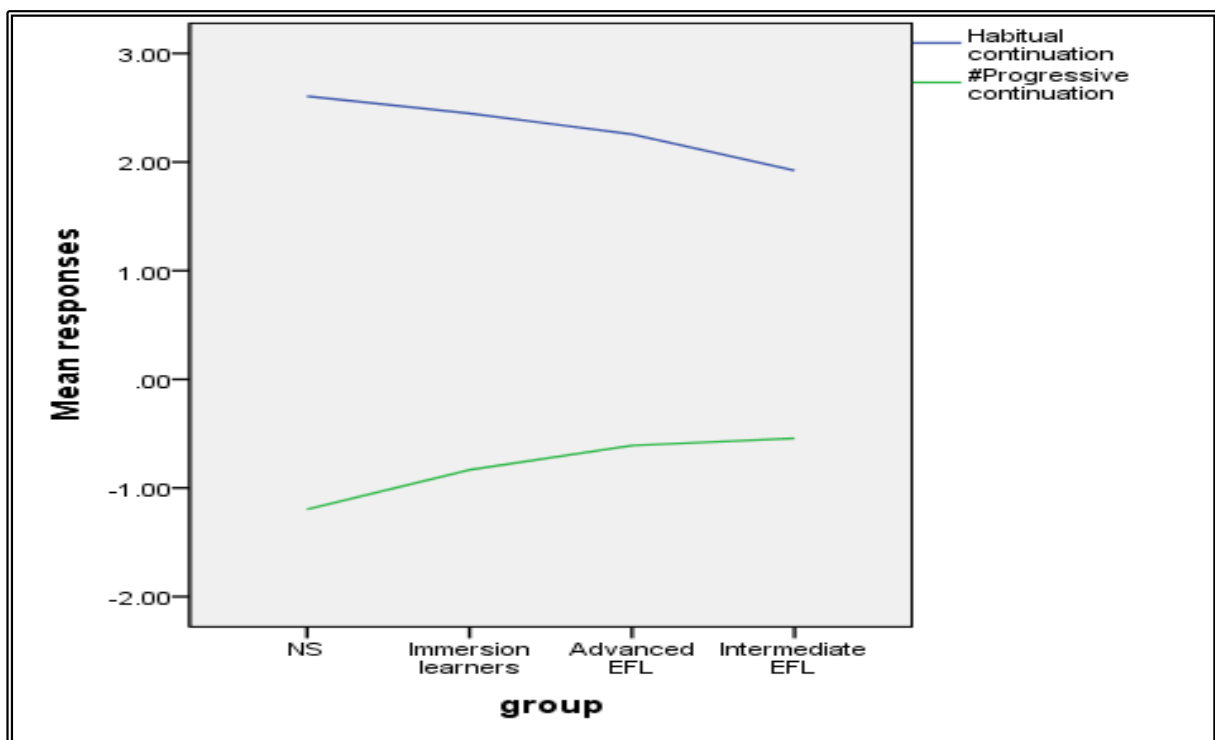
Figure 5.03: Mean plot for habitual and #progressive continuations in present tense contexts

Crucially, learners have to establish the distinction regardless of the verb predicate. Hence, learning has to take place not on the basis of verb type. It is logically likely that L2 speakers are contrasting between the two continuations based on the properties of the verbal predicate (Hawkins et al. 2008; Gabriele 2005). If we follow this line of reasoning with respect to the results in Figure 5.03, learners have to establish a grammar similar to the native speaker which is not affected or influenced by the property of the verb. Therefore, the analysis was designed to break down the total means by predicate type (stative, durative, or achievement). Table 5.3 shows mean responses for (accept) and (reject) continuations broken down by predicate type, with standard deviations provided between parentheses:

	(Accept) Continuation			(Reject) Continuation		
	Durative	Stative	Achievement	#Durative	#Stative	#Achievement
NS	2.68 (.34)	2.4 (.68)	2.7 (.35)	-1.14 (1.1)	-1.3 (1.25)	-1.1 (1.4)
Immersion	2.59(.59)	2.2 (.94)	2.5 (.77)	-1.19 (1.5)	-.25 (1.6)	-1.05 (1.12)
Ad-EFL	2.2(1.02)	2.1(1.03)	2.53 (.77)	-.42 (2.44)	-.59 (1.2)	-.8 (2.09)
Inter-EFL	1.7 (1.9)	1.8(1.08)	2.13 (.78)	-.31 (1.8)	-.54 (1.25)	-.77 (1.8)

Table 5.3: Mean responses (accept) continuation and (reject) continuation broken down by predicate type.

The descriptive statistics indicate that there were differences between verbal predicates. The NS group seemed to perform similarly on all the predicate types, with the L2 groups showing some variation in performance on the three predicate types. A 2 (continuation) x 3 (verb type) RM ANOVA statistical test with a Greenhouse-Geisser correction (the assumption of *sphericity* has been violated by the verb type*)* indicated no statistical effect for the verb type, (*F* $(1.57, 118.4) = .091$, $p = .9$, *Partial* $\eta^2 = .001$). However, the interaction between the continuation and the verb type was statistically significant, (*F*$(1.87, 140.9) = 3.99$, $p < 0.05$, *Partial* $\eta^2 = .05$). Apparently, the effect size of this interaction is medium as the *Partial* η^2

shows. *Pairwise comparisons* revealed that the native speakers and the immersion and advanced EFL groups treated the verbs equally, whereas it was significantly more likely for the intermediate EFL to accept the habitual continuation when the verbal predicate was achievement and stative rather than durative. In addition, the intermediate group was significantly different from the native speakers on the achievement and durative predicates and not on the stative verbs. However, there was no statistical effect reported in the case of the inappropriate progressive morphology for the native and advanced EFL group. They statistically rejected all verbal predicates at a similar rate. On the other hand, the immersion group was less likely to reject when the predicate was stative. Similarly, the intermediate EFL group was less likely to reject when the predicate was durative. Nevertheless, *Pairwise comparisons* indicated that there was no statistical difference between the native speaker and the L2 groups with regard to durative and achievement verbs, but this was different from the immersion group with regards to stative verbs.

To sum up, the results globally indicate that all participants recognised the contrasting meaning between both continuations, and that the verb type had a limited effect group performance. However, the results for the intermediate group are somehow puzzling. Figure 5.03 shows that the gap between both continuations, in the case of the intermediate level, was narrow, but enlarging with the proficiency level. In other words, it is likely that there are still some effects of L1 grammar. The imperfective morphology in Arabic can denote both habitual and progressive reading. In other words, there are some learners in the group fluctuating between the two continuations. However, the general pattern seems to indicate that L2 groups established the contrasting meaning from the intermediate developmental stage and this distinction is not influenced by verb type.

5.3.1.3 **Progressive vs #habitual interpretations in the present tense**

This part is going to look at the opposite picture, in particular where L2 learners have to establish the progressive morphology and associate that with existential or progressive interpretations. While the L2 learners are distinguishing between contrasting interpretations with respect to the simple finite present tense forms, there is not a clear enough indication that they have established the underlying syntax for the progressive semantics. Hence, an independent analysis was run to gain potentially better reflection of how L2 learners can establish the interpretive-syntactic interface with respect to *be+v-ing* constructions and L1 grammar.

To test this interpretation, the same experimental conditions were applied. The L2 learners had to accept the interpretation that the opening context privileges, while rejecting the opposite continuation. Figure 5.04 shows the total mean ratings for the progressive interpretation, with the progressive morphology for all the experimental groups. Actual means and standard deviations are provided below the figure for more descriptive statistics. The descriptive analysis shows the NS group outperformed the L2 groups and all L2 groups performed similarly to each other. The one-way ANOVA statistical test indicated a significant difference between groups ($F(3,75)=3.3, p < 0.05$). Comparisons using *Bonferroni's post hoc* revealed no significant difference between the NS group and the immersion and advanced EFL groups (MD=.6,CI=-.03,1.2 and MD=.6,CI=-.09,1.2 respectively), except with the intermediate group (MD=.6,CI=.01,1.15). However, no significant differences were reported between the L2 groups, as they seem to perform in a similar fashion. This means that the learners, even in the intermediate group, follow the same pattern as the native speakers, generally accepting the appropriate progressive continuation and associating that with the progressive interpretation of the context by giving a statistically equivalent score.
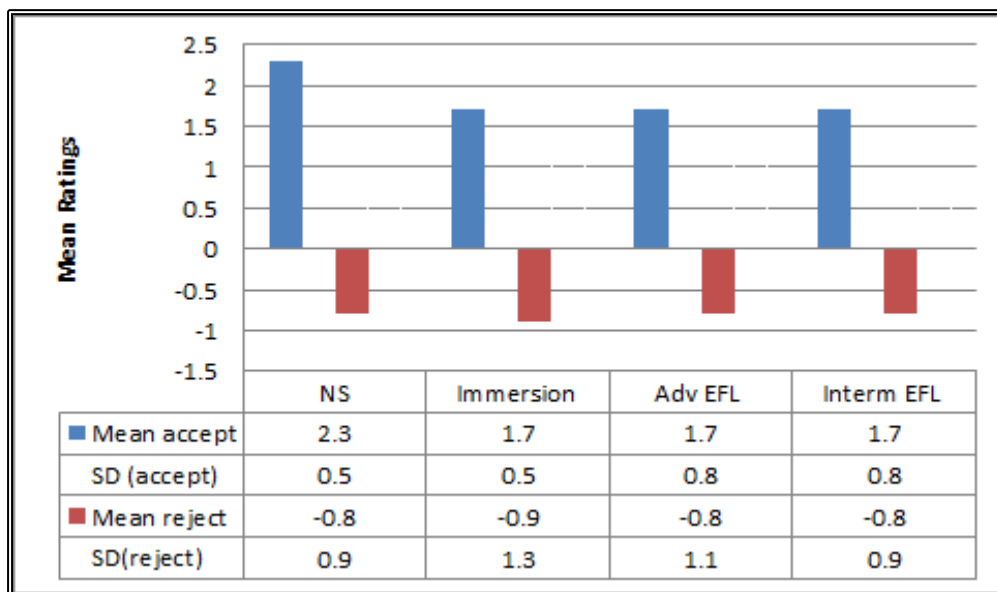
Figure 5.04: Mean ratings for progressive continuation and habitual continuation in the present progressive context

Crucially, to see whether participants established the meaning contrast in L2 away from L1 grammar, we need to examine their performance on the continuations where *v-s* is used. Finite present forms (*v-s*) usually denote habitual interpretations, while the opening context favours progressive interpretations. Thus, the participants had to demonstrate their grammatical knowledge by rejecting this continuation.

Figure 5.04 shows the mean ratings for the opposite contrasting continuation (habitual) with the finite present tense forms (*v-s*). The figure shows a similar pattern of rejection between the NS, immersion, and advanced EFL groups, but an under-rated mean score for the intermediate group. The one-way ANOVA statistical test revealed no significant group effect, $(F(3,75)=2.2, p > 0.05)$, with a *post hoc Scheffe* test revealing no significant differences between the groups.

A closer examination of the responses in Figure 5.04 is required to see why there are underrating scores in the rejection of the #habitual continuation. The inspection of the total

individual means reveal two speakers (the same two as in the habitual vs #progressive) in the NS group who scored positive means (1.17,1.33) while the rest scored a negative mean ranging from -.17—1.75. Similarly, the analysis indicates that there were five participants (the same four participants from habitual vs #progressive plus another participant) from the immersion group who scored positive means ranging from 0 to 1.6, while other participants scored negative means ranging from -2.75 to -.25. For the advanced EFL group, there were five participants (the same three participants from habitual vs #progressive plus two other participants) who scored positive means ranging from .17 to .43, whereas other participants marked the continuation with negative means ranging from -3 to -.33. On the other hand, 10 participants in the intermediate group scored positive means ranging from 0 to 1.50 while the other participants (15) scored negative means ranging from -2.4 to -.17. The analysis revealed that the majority of the participants rejected the #habitual interpretation, and that the general tendency is to reject the continuation from the intermediate stage of development.

However, performance on both continuations can inform us, and provide evidence, as to whether L2 learners can categorically distinguish between contrasting interpretations for the property in question (White 2003a). Although the immersion and advanced EFL groups score numerically higher than the intermediate group, they are not statistically different: therefore, the necessity of running a RM ANOVA statistical test to examine any differences between the two conditions. Continuation (within factor) X group (between factor) RM ANOVA indicated that there was a significant condition effect ($F(1,75)=247.6$, $p < 0.05$, *Partial η^2* $=.76$), but that the interaction between group x condition was not statistically significant (($F(3,75)=2.4$, $p = 0.07$, *Partial η^2* $=.09$). Individual paired sample *t-tests* revealed that all the groups significantly distinguished between both continuations (NS= t=14.6, $p <.001$, d=.9; Immersion= t=8.1, $p <.001$, d=.8; Adv EFL = t=6.2, $p <.001$, d=.8; Interm EFL = t=6.2,

p <.001, d=.7). As the statistics show there were large effect sizes for the differences between

the two conditions. Figure 5.05 is a visualisation of this distinction:
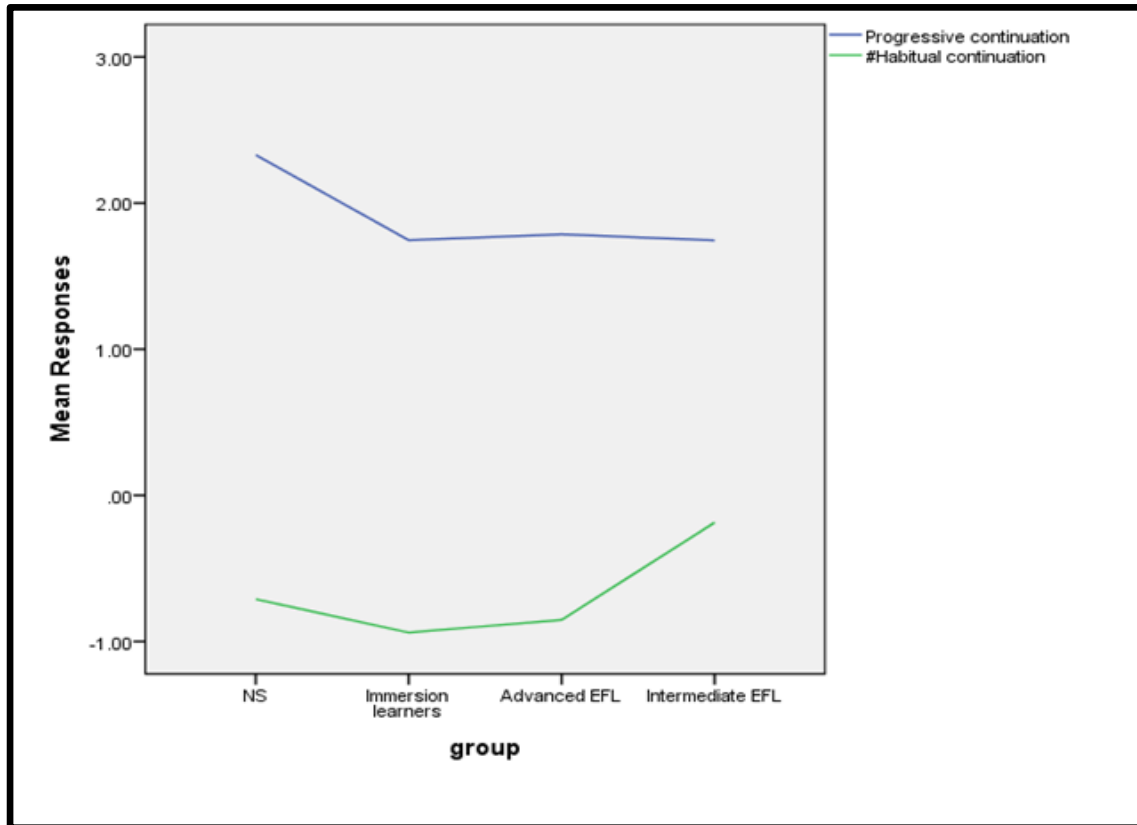
Figure 5.05: Line graph for progressive vs. #habitual continuations by group

However, we should recall that there was a process of grammaticalisation for the progressive

interpretation in Saudi-Arabic and this grammaticalisation is influenced by the inherent

features of the verbal predicate. It is more natural for this to occur with durative predicates

than achievement or stative verbs. If learners make use of the semantic properties of L1, we

would expect to see behavioural differences with regard to the verbal predicate. In other

words, if the transfer predictions hold true, we would predict to see a significant effect for

verbal predicate in their performance. Table 5.4 illustrates the mean responses for the

progressive and #habitual continuation broken down by the predicate type. Standard

deviations are provided between parentheses:

	Progressive (Accept)			#Habitual (Reject)		
	Durative	Stative	Achievement	#Durative	#Stative	#Achievement
NS	2.5 (.5)	2.46 (.7)	2.01 (.8)	-1.6 (1.14)	.105 (1.2)	-.6 (1.01)
Immersion	2.35 (.6)	1.9 (.7)	.93 (.88)	-1.46 (1.4)	-.18 (1.9)	-1.17 (1.24)
Ad-EFL	2.1 (1.06)	2.1(1.03)	1.18 (1.2)	-1.8 (1.01)	.015 (1.7)	-.68 (1.5)
Inter-EFL	1.9 (1.2)	1.5(1.05)	1.7 (1.2)	-1.1 (1.2)	.5 (1.24)	-.01 (1.3)

Table 5.4: Mean responses for (accept) continuation and (reject) continuation broken down by predicate type.

The descriptive statistics show that L2 learners numerically accept more when the predicate

is durative and they are more likely to reject the #habitual continuation when the predicate is

durative. The 2X3 RM ANOVA (*sphericity* is assumed) statistical test indicated a significant

effect for verb type ($F(2,150)=28.1$, $p < 0.0001$,*Partial η^2 =.3*) and the interaction between

verb type x continuation condition statistically significant, ($F(2,150)=39.7$, $p <$

0.0001,*Partial η^2 =.3*). The results show that there were behavioural differences between the

verbal predicates. *Pairwise* comparisons revealed that the NS, immersion, and advanced EFL

groups were significantly more likely to accept when the predicate was durative or stative,

rather than achievement predicates. However, there were no significant acceptance

differences with regard to verb type in the intermediate EFL group. However, in the rejecting

means, the groups were statistically more likely to reject when the predicate was durative

predicate.[62] On the one hand, the one way ANOVA confirms that there was no statistically

significant difference between the groups, with regard to rejecting the durative predicate

($F(3,75)=1.6$, $p =.19$,*Partial η^2 =.05*). On the other hand, they were statistically less likely to

---

[62] In the immersion group, there was no significant difference reported between durative and achievement predicates. However, by looking at the actual means we can say that the durative predicate is more likely to be rejected.

reject when the predicate was a stative verb.[63] Crucially, this variability or difference is similar between groups and not within participants. However, these low means with the stative verbs require a closer inspection of the individual responses, especially with the NS group. We should recall that the participants had to reject # habitual interpretations with present tense morphology such as:

1. #Maria wants to improve her English right now, so to do this....................
she stays with an English host family at the moment.

2. #Jane rejected my plan to live with me because ....
she has second thoughts about moving abroad.

The analysis revealed that the native speakers largely accepted the items in (1-2). In other words, they allowed this interpretation in their grammar. On the other hand, they surprisingly accepted the other continuation (progressive) to a large degree. The L2 learners almost performed similarly to the native speakers group despite the presence of the lexical marking of the progressive aspect *right now.* These two cases indicate that the aspectual judgments given by the native speakers might show variability that is not accounted for by what theory predicts in particular at interface phenomena (Prévost 2011). This can be clearly depicted at the discourse-syntactic interface with the use of null/overt subject in certain cases.

To sum up, these findings indicate that the participants could globally distinguish between both continuations. However, there was an effect for the verb type on the performance of all groups, not only the L2 groups. In addition, the L2 learners were able to overcome the semantic properties of L1 and follow the pattern of the native speakers in their performance, not only in the general picture, but also when showing variability. However, the intermediate EFL group did show variability and fluctuation in their performance, allowing simple

---

[63] The pairwise comparisons indicated that in the EFL groups there was no difference between the stative and achievement verbs; however, numerically we can say that the stative was less likely to be rejected.

thematic verbs to have a progressive interpretation which can also be an L1 effect. However, the general pattern seems to indicate that L2 learners were able to establish contrasting interpretations.

Crucially, if L2 learners established the representation for the aspectual distinction, they should recognise that *be* is an exponent of [prog] regardless of tense. This point is important. Bardovi-Harlig (2002) pointed out that the past progressive seems to be harder to acquire. In addition, Wagner (2001) demonstrated that English children had difficulty interpreting past progressive and linked the form to a completed interpretation. Similarly, Gabriele (2005) found that past progressive was harder to acquire for Japanese speakers learning English than the present progressive with both achievement and accomplishment predicates. Therefore, the next section is an examination of the past progressive.

5.3.1.4   Progressive vs. #habitual interpretations in the past tense

Although aspects of L2 performance in the previous sections suggest that L2 learners have the underlying representation of the distinction between *v-s/be+v-ing*, data from the literature seems to indicate that past progressive is a harder task for L2 learners. L2 learners have to recognise that *be+v-ing* is a morphological exponent of an independent syntactic [prog] and do not interpret the auxiliary marking *was/were+v-ing* as encoding a completed event but a progressive interpretation.

Figure 5.6 shows the mean responses for past progressive interpretations in past progressive contexts:
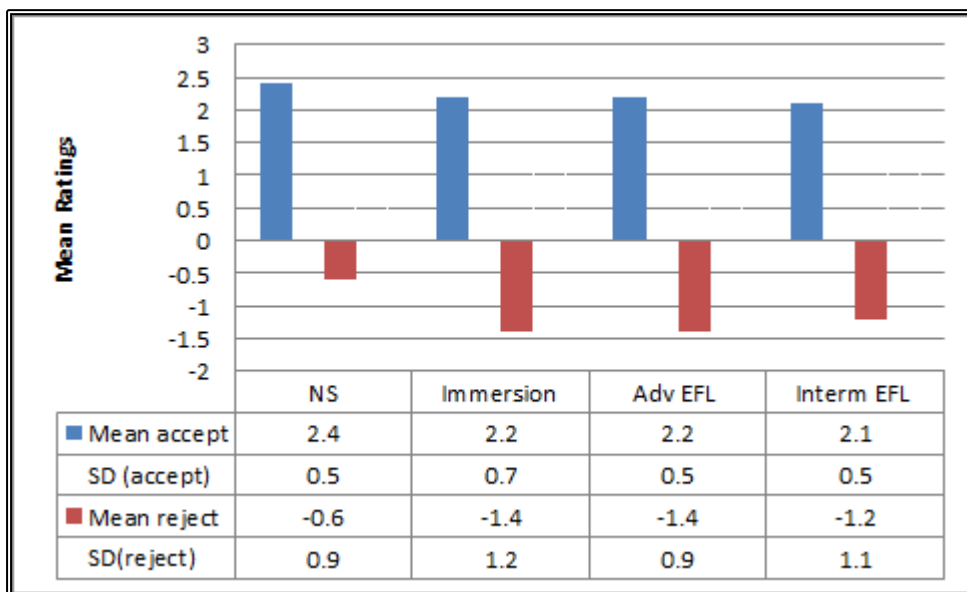
Figure 5.6: Mean ratings for past progressive continuation (accept) and # past continuation (reject) in past progressive context

The descriptive statistics show that all groups largely accepted the past progressive interpretations. The one-way ANOVA statistical test confirmed this finding. There was no significance between the experimental groups ($F(3,75)=1.1$, $p =.35$, *Partial* $\eta^2 =.04$). As the effect size shows, the probability of finding any difference at all is very small. Tukey's *post hoc* tests revealed that there were no statistically significant differences between the groups. The intermediate group performed similarly to the native speakers. The RM ANOVA with a Greenhouse-Geisser correction revealed that there was a verb type effect ($F(1.55,116.7)=32.6$, $p <.0001$, *Partial* $\eta^2 =.3$). *Pairwise* comparisons indicated that all the groups were more likely to accept when the verb was durative or stative as opposed to achievement. The one way ANOVA test revealed that the acceptance rate was not different between the groups on the achievement predicate, $F(3,75)=1.2$, $p >.05$, *Partial* $\eta^2 =.04$. Therefore, the general conclusion is that all groups performed in a statistically similar fashion in their acceptance for the past progressive interpretation and the effect size for the verb type on the performance remained very small (*partial* $\eta^2 =.3$).

It was important to test whether L2 learners understood that the past progressive does not entail completion and recognise that they need to reject perfective verbs in progressive contexts. Figure 5.6 shows the mean responses for the past continuation (reject) in the past progressive contexts. The means show numerically that the L2 speakers were more likely to reject than the native speakers. This is interesting and puzzling. However, the one way ANOVA test revealed that there was no statistically significant difference between the groups (F (3, 75) =2.63, p =.056, *Partial η^2* =.105). The effect size shows that the difference between the group accounts only for 10.5% of the variance in the scores. Accordingly, a closer examination of the scores broken down by verb type was conducted to investigate any effect of verb type on the performance. Table 5.5 shows the response means broken down by verb type with regard to performance on the past continuation (reject):

Verb type / Group	#Perfective Verbs		
	#Durative	#Stative	#Achievement
NS	-1.14 (1.1)	-.013 (.99)	-.75(1.22)
Immersion	-1.9 (1.35)	-1.38(1.2)	-1.16(1.3)
Ad-EFL	-2.03(1.2)	-1.14(1.7)	-1.18(1.1)
Inter-EFL	-1.67(1.3)	-.79 (1.6)	-1.32(1.16)

Table 5.5: Mean responses on the #past continuation verbs in past progressive contexts

As the table shows, verb type had an effect on the total means for the native speakers whereas the L2 speakers were numerically more willing to reject than the NS group. The RM ANOVA test with a Greenhouse-Geisser correction revealed that there was a significant effect for verb type ($F(1.6,118.9)=17.1$, $p <.0001$, *Partial η^2* =.19), whereas verb type x group interaction was not significant ($F(4.7,118.9)=1.13$, $p =.34$, *Partial η^2* =.04). *Pairwise* comparisons can be seen to indicate that the groups were more likely to reject when the predicate was durative than achievement or stative verbs. In fact, there was no significant

difference between the groups with regard to achievement predicates ($F(3,75)=.87$, $p=.46$, *Partial* $\eta^2=.04$), or with regard to durative predicates as well ($F(3,75)=1.8$, $p=.15$, *Partial* $\eta^2=.1$). However, there was a significant difference with regard to stative verbs ($F(3,75)=2.2$, $p<.05$, *Partial* $\eta^2=.12$). *Pairwise comparisons* revealed that there was no difference between the L2 groups. A closer inspection of the native speakers' responses to the stative verbs can reveal that native speakers allowed perfective verbs to occur in the past progressive contexts:

3. #During the London riots, ...
    I lived in Tottenham.

4. # When I met Wayne Rooney , ……
    he stayed in the Manchester Marriot hotel.

5. #When I saw him yesterday ,…….
    he stood at the stop waiting for the bus to come

The native speakers largely accepted these readings, while at the same time they accepted the progressive readings as in Figure 5.6. The categorical examination revealed that the NS group accepted the perfective verbs in these contexts; most of the group gave positive means to the perfective verbs. This means that the native speakers probably interpreted these contexts as *finished* and the entailment of the progressive event was acceptable. On the other hand, they interpreted the durative and achievement as incomplete events and the entailment of being completed was unacceptable. However, the L2 groups did not pattern with the NS group with regard to stative verbs. A response inspection revealed that they largely rejected the perfective verbs and accepted the progressive interpretation. *Pairwise comparisons* revealed that the NS group significantly differed from the immersion group (MI=1.3,CI=.43,2.3) and

the advanced EFL group (MI=1.1,CI=.15,2.1). There were also no differences between L2 groups reported. The categorical examination revealed that the native speakers were more likely to accept than to reject while the tendency for L2 groups is to reject the perfective verbs rather than to accept.

In order to investigate whether the L2 learners established the distinction between the past progressive and the perfective verbs, a RM ANOVA test was conducted. The RM ANOVA test indicated there was a significant effect for the continuation (F(1,75)=560.7, p <.0001,*Partial η^2* =.9) whereas the interaction between group x continuation was not statistically significant (F(3,75)=1.01, p =.39,*Partial η^2* =.04). In other words, the groups distinguished to a statistically significant degree between the two contrasting meanings. However, there was an effect for verb type. The groups were more likely to reject the perfective verbs when the predicates were achievement and durative. However, there was a numerical difference in the stative verbs between the native speakers and the L2 groups. As Figure 5.7 shows the two lines are parallel in the case of L2 groups but the green line is rising in the case of the native speaker. The reason for this rise is due to the native speakers' performance on the stative verbs. Their acceptance of stative perfective verbs resulted in the rising of this green line.
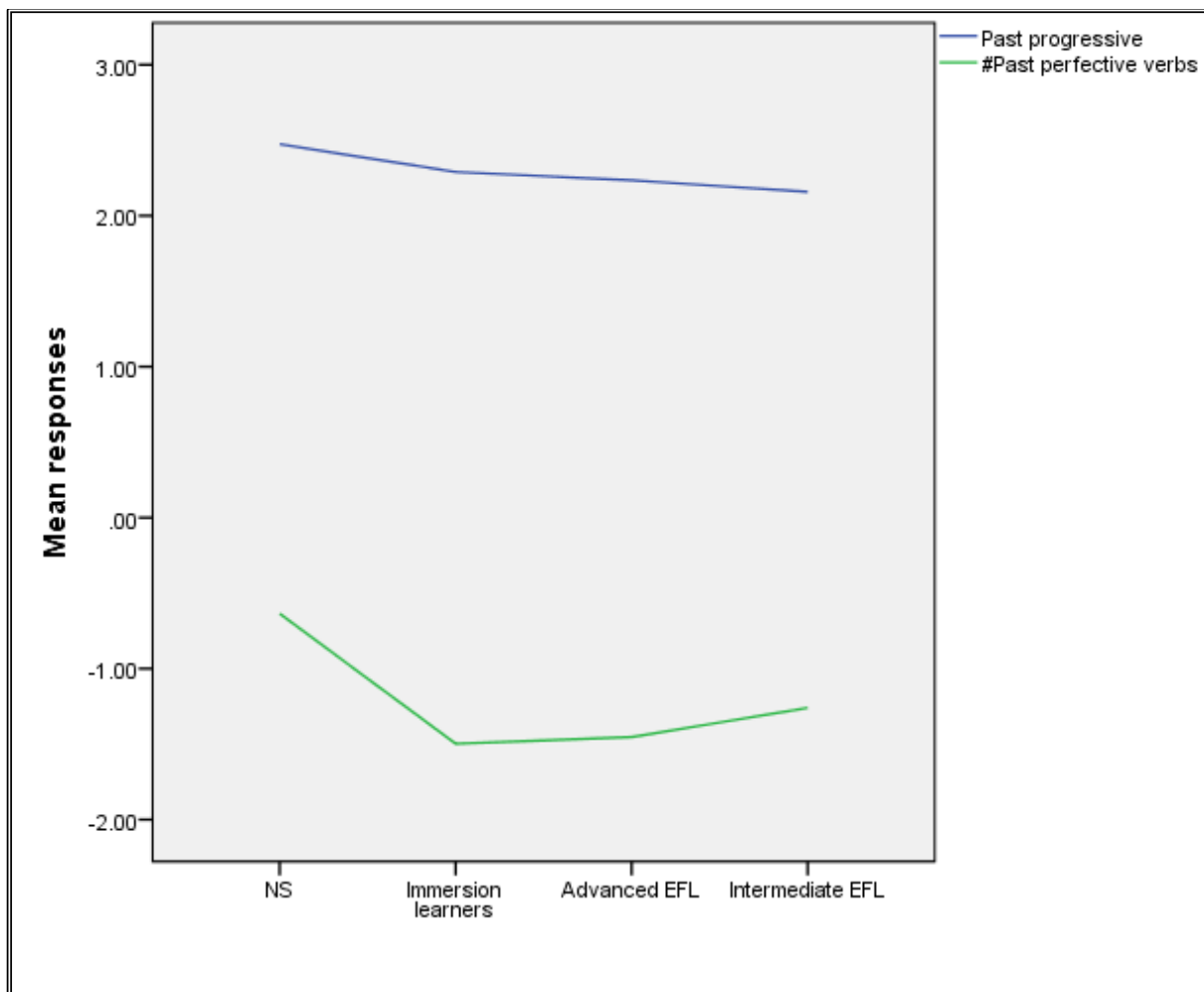
Figure 5.7: Line graph for past progressive versus past verbs in the past progressive contexts by group

5.3.1.5 Summary of findings

The findings from the first part generally demonstrate that the L2 groups were able to distinguish and interpret aspectual morphology as the native speakers from intermediate stages of development. The L2 groups patterned with native speakers in their distinction and interpretation. However, there were some differences at the micro level, but they generally moved beyond L1 effects, and were able to converge to the target-like interpretation in their ILG.

5.3.2 AJT 2

In this section, we present the results for the second acceptability judgment task. This task aims at investigating the interpretation of temporal distinctions between the simple past and the present perfect. The same construction and instruction applied in the first task were used in the second task as well. The participants again responded to two continuations of a given context. In addition, the same statistical analyses were run and conducted, in particular the RM measure ANOVA, to examine whether the participants have established the two constructions and their related semantics. I will summarise the results using graphical visualisation of the data as well.

5.3.2.1 The main RM ANOVA

The RM ANOVA test is conducted for the whole data set with type (2 levels: preterite, present perfect) x continuation (2 levels: acceptable v. unacceptable) and group as the between-subject factor. The results (sphericity assumed) are presented in Table 5.6 showing the main effects and interactions:

Effects and Interactions	F	df	p	Partial η^2
Group	.66	3	.5	.026
Type	92.4	1	0*	.55
Continuation	283.5	1	0*	.79
Group x type	24.7	3	0*	.5
Group x continuation	15.9	3	0*	.39
Continuation x type	7.7	1	.007*	.09
Continuation x type x group	2.5	3	.06	.09

Table 5.6: RM ANOVA statistics of difference in experimental conditions in AJT 2

The results indicate that there was a significant main effect for type and continuation but not for group. However, the interaction between group x continuation x type was not significant. Figure 5.08 is a graphical visualisation of these statistics:
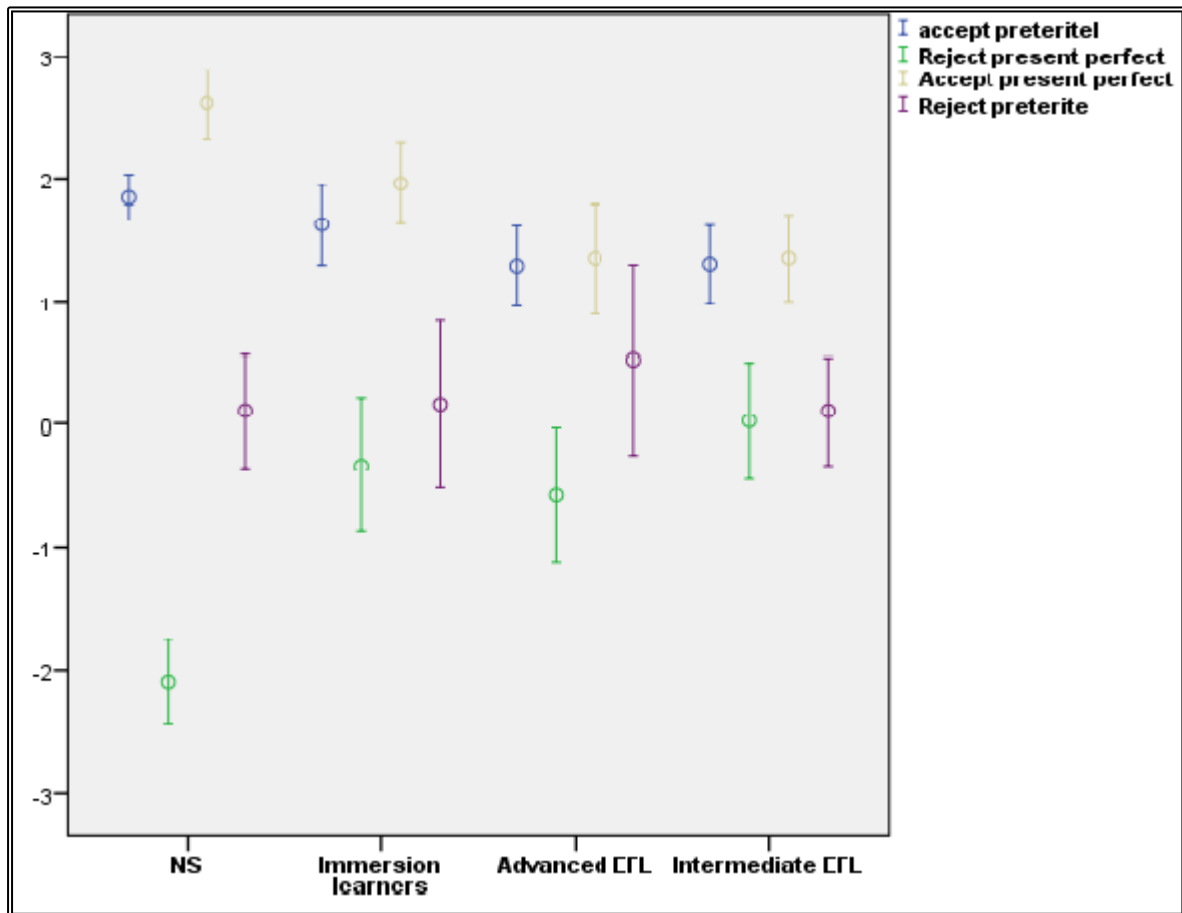
Figure 5.08: Error plots for all the experimental conditions in AJT 2 by proficiency level

The next step is to break down these statistics by type and continuation to examine the effects

and interactions at the micro level.

5.3.2.2 Present perfect vs. simple past

Sentences with past morphology (-*ed*) mainly denote past/completed interpretations where

sentences with present perfect morphology (have+v-en) describe a past event that extends

into the present time (Reichenbach 1947; Leech 1987; Comrie 1985,1976; Smith 1997;

Chung & Timberlake 1985; Binnick 1991). Hence, English distinguishes between both

constructions morphologically, whereas the same morphological form in Saudi Arabic

denotes both constructions, and depends on the adverbials and context to determine which interpretation is intended (Fassi-Fehri 2004; Bahloul 2008).

Therefore, it is interesting to see how L2 learners initially approach both meanings in L2 and whether they assume that the same range of meanings is expressed in L2 as in their L1 grammar. In addition, there is the following question: can they map L2 forms to their L2 semantics at later stages of development? The L1 grammar does not lack the features in question but it lacks the morphosyntactic form that encodes the L2 semantics (Fassi-Fehri 2004). Thus, will L2 learners be able to acquire (assemble) this feature into the morphosyntactic form *have+v-en* with the appropriate interpretation and how is it acquired over time?

Figure 5.09 shows the mean responses for the present perfect construction when the context privileges its interpretation for all the experimental groups:

	NS	Immersion	Adv EFL	Interm EFL
■ Mean accept	2.6	1.9	1.3	1.3
SD (accept)	0.6	0.6	0.8	0.8
■ Mean reject	0.1	0.15	0.5	0.1
SD(reject)	0.9	1.4	1.4	1.04
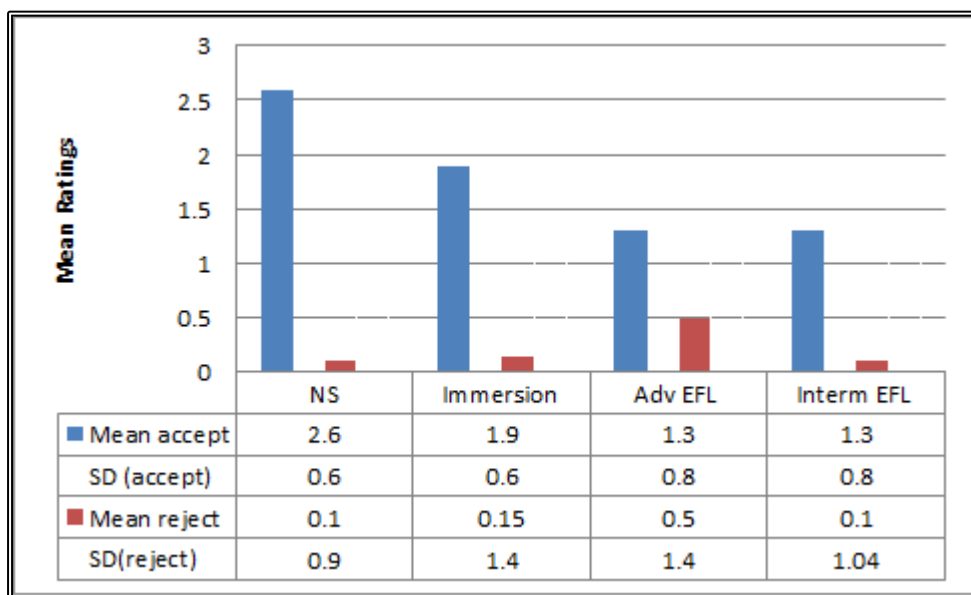
Figure 5.09: Mean ratings for the present perfect (accept) and preterite (reject) continuations in present perfect contexts.

The descriptive statistics show that the NS group were numerically higher than L2 groups in accepting the present perfect construction. The one way ANOVA test confirmed this interpretation, revealing a significant difference between groups (F(3,75)=12.4, p <.001,*Partial η^2* =.496). The *Post hoc Tukey HSD* tests indicated that the native speakers were significantly different from the L2 groups. However, the immersion group was not significantly different from the advanced EFL group (MD=.61, CI= -.05, 1.3), although there was a difference with respect to the intermediate EFL group (MD=.61,CI= .009,1.2). The advanced group was not different in a statistically significant sense from the intermediate group (MD=-.002, CI= -.6,.63). The RM ANOVA test (sphericity assumed) indicated that there was no main effect for the verb type (F(2,156)=.55, p =.57,*Partial η^2* =.007). Generally, the findings indicate that there is a significant difference in the performance between the native speakers and the L2 groups, and that the L2 learners performed similarly to each other.

To see how they treated the preterite continuation when the context favours the present perfect meaning, Figure 5.09 shows the mean responses for the past continuation when the context favours the present perfect meaning. As can be seen from this figure, all of the groups tended not to reject the past continuation when the context favours the present perfect meaning. The one way ANOVA test confirmed the observation that there was no significant difference between the groups (F(3,75)=.47, p =.7,*Partial η^2* =.02). In other words, all the groups performed similarly. The RM ANOVA test revealed that there was a significant verb type effect (F (2,156)=5.02, p <.05,*Partial η^2* =.06).[64] The groups were more likely to reject when the verb was durative, rather than when achievement or stative verbs were involved. Table 5.7 shows the actual means for each verb predicate by proficiency group:

---

[64] Sphericity assumed.

| Group | #Past Continuation | | |
Verb	#Durative	#Stative	#Achievement
NS	-.11 (1.14)	.47 (.9)	-.03 (1.2)
Immersion	.15 (1.4)	.07 (1.7)	.23 (1.7)
Ad-EFL	-.39 (1.85)	.84 (1.4)	1.1 (1.6)
Inter-EFL	-.05 (1.4)	.03 (1.09)	.33 (1.45)

Table 5.7: Mean ratings for #past continuation broken by verb type and proficiency group

To examine whether L2 speakers established the meaning distinction, we need to compare their performance across the two constructions, 2 (continuation) X 3 (verb type); the RM ANOVA test was run to detect any statistical differences. It revealed − sphericity assumed − that there was statistical significance for the continuation condition ($F(1,75)=82.2$, $p <.001$, *Partial η^2 =.5*), and the verb type ($F (2,150)=4.6$, $p <.05$, *Partial η^2 =.05*). However, the interaction between continuation condition and the verb type was not statistically significant ($F (2,150)=1.88$, $p =.15$, *Partial η^2 =.024*). Individual paired-sample *t*-tests revealed that the native speakers significantly distinguished between both meanings. Similarly, the immersion and the intermediate EFL groups significantly distinguished between the two meanings whereas the advanced EFL group did not show statistical significance between the two continuations.[65] Results of the *t*-tests are shown in Table 5.8:

Group	*t*-value	*df*	*p*-value	95% CI	Effect Size
NS	12.04	18	*p* <.001	2.06,2.9	.84
Immersion	4.57	18	*p* <.001	.97,2.6	.62
Advanced EFL	1.5	15	*p* =.14	-.32,1.97	.32
Interm EFL	4.5	24	*p* <.001	.67,1.8	.58

Table 5.8 Summary of the paired-sample *t*-test between present perfect (accept) vs. #preterite (reject) continuations

---

[65] This statistical difference merits closer scrutiny in terms of whether they are establishing the distinction or if it is due to different reasons. See Hawkins et al. (2008) for a similar discussion on Japanese/Chinese learners performance in progressive marking.

The general picture emerging from Table 5.8 and Figure 5.10 (below) is that all the groups including the native speakers accept of both meanings, but there is a preference for the present perfect to suit the intended context. This is not surprising, because the context is designed to elicit the present perfection construction. However, the L2 groups did not show such a statistically strong preference as the native speaker group for the present perfect. In addition, the context obscures the performance of the L2 learners. The fact that they are accepting of the present perfect and the preterite continuations is not clear-cut because of the native speakers' performance on the past continuation. However, although there was a significant difference between native speakers and L2 groups in the acceptance rate, there was no significant difference in the rejection rate (see Figure 5.10). Although the L2 groups demonstrated a statistical difference between meanings, it is unclear whether the knowledge the L2 learners appear to display can be taken as an indication that they did indeed establish the contrast (see Hawkins et al. (2008) for a similar discussion). It is likely that they made the distinction for different reasons, such as due to the experimental nature of design mentioned earlier. However, the critical point is that the L2 groups could not accept the present perfect to the same degree as the native speakers. Nevertheless, in the next section, the bigger picture can be clearly seen when looking at their performance on the other contrast.
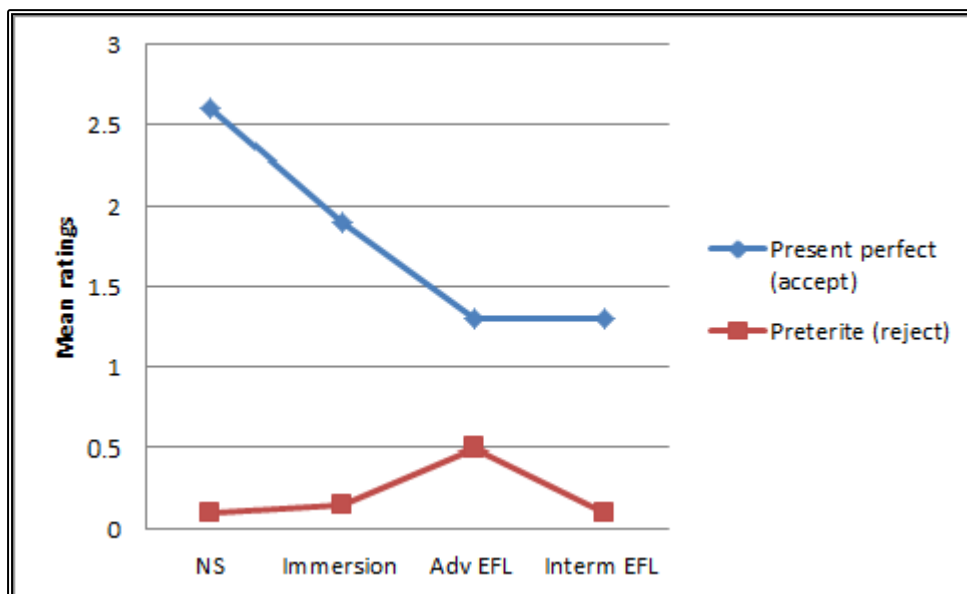
Figure 5.10: Mean ratings for present perfect (accept) and #preterite (reject) continuations by proficiency group

5.3.2.3 Preterite vs. present perfect

The results from the previous subsection 5.3.2.2 were somehow puzzling and did not offer the possibility of detecting whether the L2 learners display the contrasting meanings or not. Hence, the performance of the L2 learners on the other contrasting meanings can possibly inform us about the knowledge of the L2 learners. Particularly, it can inform us about what semantic interpretations they associate with the morphosyntactic forms in L2, because preterite and present perfect meanings are distinctly realised by two forms while Arabic has one form underlying the two meanings (Comrie 1976; Fassi-Fehri 2004; Bahloul 2008).

Figure 5.11 shows the mean responses for the preterite continuation when the context favours its interpretation for all the experimental groups. Actual means and standard deviations are provided below the figure for descriptive statistics:
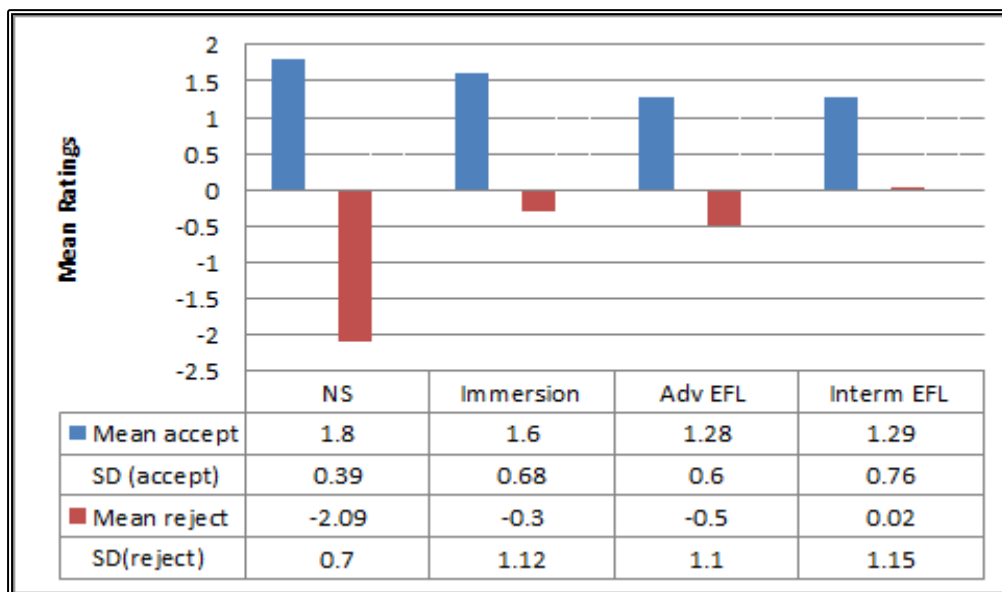
Figure 5.11: Mean ratings for the preterite (accept) and #present perfect (reject) continuations in preterite contexts by proficiency group

The descriptive statistics show that the groups performed almost the same as each other. The one way ANOVA statistical test indicated a significant between group effect, (F (3,75)=3.48, p <.05,*Partial η^2* =.14). *Post hoc Tukey HSD* tests revealed no significant difference between the native speakers and the L2 groups except for the intermediate EFL group (MD=.54,CI=.03,1.05). Furthermore, there was no significant difference reported between any of the L2 groups. In addition, the RM ANOVA test (sphericity assumed) revealed that there was a significant verb type effect (F (2,150)=8.25, p <.001,*Partial η^2* =.09) as well as the interaction between verb type x group (F (6,150)=3.07, p <.05,*Partial η^2* =.11). Table 5.9 shows the mean responses (standard deviations are provided between parentheses) for accepting the past continuation broken by verb type:

Group	Preterite Continuation		
	Durative	Stative	Achievement
NS	2.5 (.58)	1.25 (.51)	1.76 (.67)
Immersion	1.5(1.1)	1.8 (1.01)	1.5(.86)
Adv-EFL	1.5 (1.07)	.93 (.81)	1.37 (1.1)
Inter-EFL	1.5 (1.02)	.99 (1.15)	1.34 (.84)

Table 5.9: The mean ratings for the preterite continuation (accept) broken down by verb type

As the table shows, the groups tended to accept when the predicate was durative more than achievement or stative verbs. *Pairwise comparisons* confirmed this conclusion; except in the case of the immersion group no significant difference was reported between all the three verb types. Therefore, the general picture seems to suggest that the groups accepted the intended interpretation in the appropriate context. However, it is critical and necessary to examine how they would treat the other continuation in the same context. We should recall that the design of the experiment tests the other contrasting continuation in meaning to see how the groups treat it; in this case the present perfect.

Figure 5.11 demonstrates the mean responses for the present perfect continuation when the context favours the preterite interpretation for all the experimental groups. As the figure demonstrates, the native speaker group outperformed the L2 groups in the rejection of the present perfect continuation to a larger degree. The one way ANOVA test confirmed this observation revealing a significant group effect ($F(3,75)=16.5$, $p <.001$, *Partial* $\eta^2 =.66$). Comparisons using *Bonferroni's post hoc tests* indicated that the native speaker group was distinctly significant from the L2 groups. Furthermore, there was no significant difference between the L2 groups' performance. To examine whether this depressing performance is influenced by the verb type, Table 5.10 demonstrates the means broken down by verb type for all groups:

Group	#present perfect continuation		
	#durative	#stative	#achievement
NS	-1.9 (.79)	-2.3 (.86)	-2.03 (.81)
Immersion	-.27(1.3)	-.45(1.2)	-.26 (1.7)
Ad-EFL	-.9 (1.6)	-.6 (1.2)	-.18 (1.01)
Inter-EFL	-.06(1.4)	-.4 (1.5)	.53 (1.57)

Table 5.10: Mean responses for the present perfect continuation (reject) broken down by verb type

The RM ANOVA statistical test with a Greenhouse-Geisser correction (*sphericity* violated by the verb type*)* revealed that there was a significant effect for the verb type ($F(1.84,138.68)=4.7$, $p <.05$, *Partial η^2* =.06) whereas the interaction between group x verb type was not significant ($F(5.5,138.68)=1.3$, $p >.05$, *Partial η^2* =.05). *Pairwise comparisons* revealed that the groups treated all the three types similarly, except for the intermediate group there was a significant difference between the stative and achievement verbs (MD=.94,CI=.33,1.5). Therefore, the general conclusion is that the rejecting performance is not influenced by verb type. In addition, L2 learners do not display target-like knowledge in rejecting the present perfect construction at all levels and learning contexts.

To compare the performance on both continuations, the RM ANOVA test revealed that there was a significant effect for the continuation type ($F(1,75)=266.5$, $p <.001$,*Partial η^2* =.78) and the interaction between group x continuation type ($F(3,75)=19.007$, $p <.001$,*Partial η^2* =.43). Individual paired-sample *t*-tests indicated that all the groups distinguished significantly between the two continuations. Results of the *t*-tests are shown in Table 5.11:

Group	*t*-value	*df*	*p*-value	95% CI	Effect Size
NS	26.6	18	*p* <.001	3.6,4.2	.95
Immersion	6.14	18	*p* <.001	1.2,2.6	.71
Advanced EFL	6.27	15	*p* <.001	.29,1.2	.72
Interm EFL	4.7	24	*p* <.001	.7,1.8	.54

Table 5.11: Summary of the paired-sample *t*-test between preterite vs. #present perfect continuations

The table demonstrates that the groups distinguished significantly between the two constructions. However, Figure 5.012 shows the distance between the two continuations for all the groups. As can be seen, the distance in the case of the native speaker is almost double the distance in the case of L2 groups.
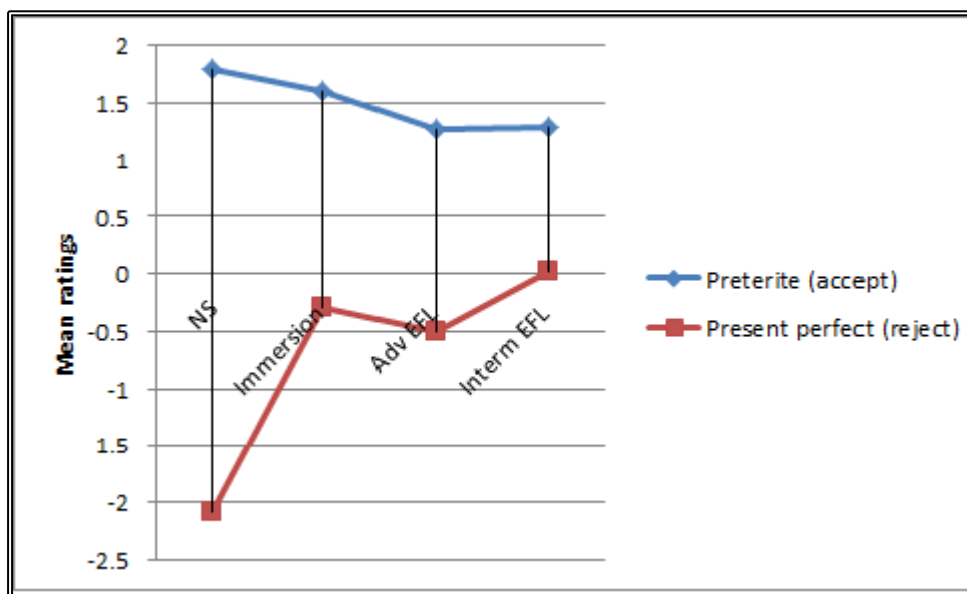
Figure 5.012: Mean ratings for the preterite (accept) vs. #present perfect (reject) continuations in preterite contexts

The L2 groups did not firmly reject the present perfect to a similar degree as the native speakers did. Instead, they fluctuated between accepting and rejecting the present perfect construction and performed similarly to each other regardless of proficiency level and learning context (see Figure 5.012). The L2 speakers at the intermediate level initially

approached the target construction with the mappings of the L1. However, this behaviour continued with the speakers at the advanced level. This performance implies that the present perfect construction causes a persistent difficulty to Saudi Arabic learners of English and its mapping might not be fully acquired in the ILG even at advanced levels.

5.3.2.4 Summary of findings

Taking the findings from the second task together, a better reflection of L2 performance emerges on the preterite and present perfect constructions. Both meanings are distinctly realised in the L2, whereas they are one form in the L1. The results from Figure 5.10 demonstrate that L2 learners could not accept the present perfect to a native-like degree. Likewise, the results from   Figure 5.012 show the difficulty that t L2 learners encounter when rejecting the present perfect in the contexts where the preterite form is favoured. Performance in both cases was not native-like, and it was the same across proficiency level and learning settings. It seems that Saudi Arabic learners of English face persistent difficulty in recognising and establishing the present perfect form even though they statistically distinguish between the tested items. On other hand, the preterite appears to cause no difficulty in the performance of L2 learners. It appears that they treated the preterite as the L1 form as being the default form.

Therefore, it was critical and necessary to compare the performance on both forms to arrive at converging conclusions. There were learners at very high levels of proficiency that continued to accept the present perfect form in the context of the preterite in non-native-like manner. In addition, the results show the acceptance of the preterite in a native-like manner preceding the present perfect form. This finding resembles what is reported in the literature of the

emergence of the past preceding present perfect (Andersen 1991; Bardovi-Harlig 1997,2000; Liszka 2004).[66]

After analysing the results from the acceptability tasks, we are able to see the results for the gap-filling tasks. The results for both tasks are presented separately because the main interest here is to arrive at converging evidence for L2 performance. Comparing performance in both tasks can provide converging evidence about whether L2 interpretations are learnable or whether problems arise at the morphological level. The design can inform us about the locus of difficulty, which is best evaluated by looking at the two sides on the coin. Thus, the next sections deal with the findings from the gap-filling tasks.

5.4 Gap-Filling Task

The task targeted the use of aspectual and temporal morphology in English. It precisely investigates targeted morphology in production and attempts to mirror what has been investigated in the acceptability task. Furthermore, it can inform us about what kind of difficulties L2 learners encounter in producing these forms. In this section, I will outline the findings of the first and second part and describe the analyses that are used.

5.4.1   Sentence gap-filling-1

As previous stated in the design, this part consisted of a number of sentences with uninflected verb form between brackets. The participants were required to fill in the blanks using the appropriate form of the verb. The first analysis was made to determine if the participants performed more or less like native-speakers on the tested condition using factorial ANOVA statistical tests. Furthermore, RM ANOVA statistical tests were conducted to examine any

---

[66] The focus of Liszka (2004) was the acquisition of the British present perfect by advanced Japanese, Chinese, and German speakers.

verb type effect. In other words, the suppliance rates will be generally submitted for statistical analysis. Then, they will be broken down by verb type to reveal any other effects.

5.4.1.1 The main RM ANOVA

Suppliance rates in the three tested structures (type) were submitted to the RM ANOVA test with group as between-subject factor. The results (sphericity assumed) that there was a significant main effect for type (F (2, 148) =41.19, $p < 0.001$, *Partial η^2* =.35), and group (F (3, 74) =14.8, $p < 0.001$, *Partial η^2* =.37). Moreover, the interaction between group x type was significant (F (6, 148) =2.8, $p < 0.05$, *Partial η^2* =.10). Figure 5.13 is a graphical visualisation of the statistics:
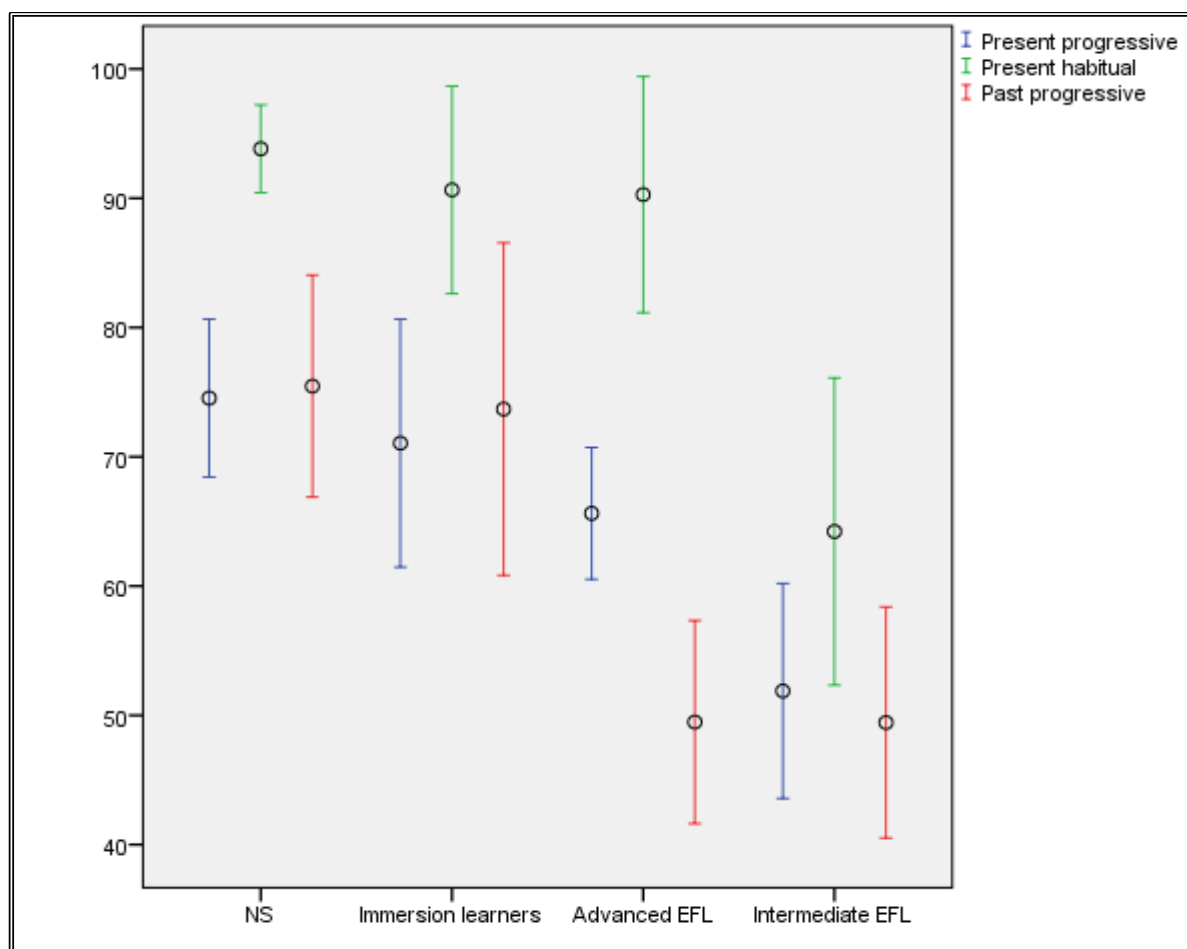
Figure 5.13: Error plots for all the experimental conditions in gap-filling-1 by proficiency level

5.4.1.2 Present progressive

Figure 5.014 demonstrates the suppliance rate for the progressive morphology in the intended contexts for all groups. Actual suppliance rates and standard deviations are provided below the figure for the descriptive statistics. The descriptive statistics reveal that the native speakers' group was numerically higher than the L2 groups.[67] Statistically, the one way ANOVA test revealed that there was a significant difference between groups, ($F(3,74)$ $=7.8, p < 0.001$, *Partial $\eta^2 =.32$*).

Present Progressive Suppliance

	NS	Immersion	Adv EFL	Interm EFL
Suppliance	74.5	71.1	65.6	51.6
SD	12.2	20	9.5	20.1
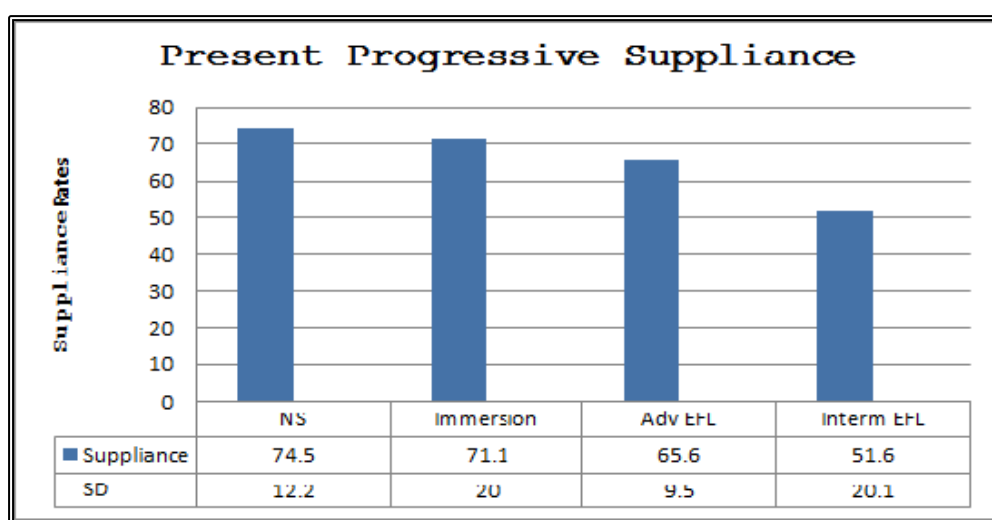
Figure 5.014: Suppliance rates for the present progressive in the gap-filling task-1

Comparisons using *Bonferroni's post hoc* revealed that the native speaker group was not different in a statistically significant way from the immersion and advanced EFL groups, but it was different from the intermediate EFL group (MD=22.8,CI=8.5,36.9). Furthermore, the immersion group was not significantly different from the advanced EFL, but it was statistically significantly different from the intermediate group (MD=19.4, CI=5.3, 33.9). Crucially, the comparisons reveal that the EFL groups were not significantly different from each other. To examine the effect of verb type on suppliance rate and whether a certain verb

---

[67] The number of the native speakers here is 18 since one participant did not show up for the second session.

type drives more suppliance than the other types, the percentages were broken down by verb type. Table 5.12 demonstrates the percentages for each verbal predicate and standard deviations are provided within parentheses:

Group	Durative	Stative	Achievement
NS	93.1 (11.5)	68.1 (22.3)	62.5 (19.6)
Immersion Group	77.6 (16.4)	64.4 (26.7)	71.1 (29)
Advanced EFL	75 (15.8)	61 (22.3)	61 (15.7)
Intermediate EFL	65.6 (24)	48 (31)	41 (31.2)

Table 5.12: Suppliance rates for the present progressive broken down by verb type

The RM ANOVA test (sphericity assumed) revealed a significant effect for the verb type ($F(2,148)= 20.9, p <0.001, Partial\ \eta^2=.022$), but not for the interaction verb type x group ($F(6,148)= 1.3, p >0.05, Partial\ \eta^2=.053$). *Pairwise* comparisons indicated that the groups were more likely to supply the progressive when the predicate is durative than for achievement and stative verbs. However, there was no significant difference between achievement and stative verbs. The native speaker group was significantly different from the immersion and advanced EFL groups when the predicate was durative, but not in the case of achievement and stative verbs. For L2 groups, the immersion group statistically performed similarly on all verbal predicates, but was numerically high in durative predicates. The advanced EFL performed similarly on durative and stative verbs, whereas the intermediate EFL was more likely to supply when the predicate was durative, performing similarly on the achievement and stative verbs. In other words, the effect of the verb type was minimal and the L2 groups followed the same pattern or behaviour as that performed by the native speakers.

Up to this stage, this analysis looks at progressive morphology suppliance as far as present progressive contexts are concerned. However, it is important to examine other forms used in these contexts as well. Table 5.13 presents the percentage of mean suppliance for the different forms produced in the present progressive contexts by proficiency group:

Group	Present	Past	Past Progressive	Present Perfect	Others[68]
NS	3.3% (5)	12.5% (9.5)	2.7% (4.9)	1.8% (4.5)	4.6% (5.1)
Immersion Group	8.7%(7)	14.4%(19.5)	1.3%(3.1)	.8%(2.6)	3.5% (8)
Advanced EFL	13.5%(9.1)	13.5%(7.8)	0% (0)	3.1% (5.1)	5.7% (6.6)
Intermediate EFL	22.5%(15.7)	14%(11.4)	.6%(2.3)	.6%(2.4)	10.5%(15.8)

Table 5.13: Mean suppliance of other forms used in the present progressive contexts

The table reveals that in a very low percentage of suppliance, bare verb forms, modals, and a range of other non-intended forms were supplied by all the groups. Furthermore, the native speakers supplied more past forms (12.5%) than other forms. The immersion and advanced EFL groups followed the natives in their performance and numerically used the past forms more than other forms (14.4 % and13.5% respectively).[69] However; the intermediate group used the present form (22.5 %) more than the past form and other forms. To examine which of these forms (present or past) is used more, a non-parametric Wilcoxon paired test is used. Table 5.14 is a summary of non-parametric paired Wilcoxon tests:

Group	*Z*-value	*p*-value
NS	-3.025	$p < .05$
Immersion Group	-.97	$p > .05$
Advanced EFL	-.26	$p > .05$
Intermediate EFL	-1.7	$p > .05$

Table 5.14: Summary of non-parametric Wilcoxon paired tests on past vs. present forms

---

[68] It involves bare uninflected verbs, modals, future, and not target use such as *be+v e.g (I am live)*.
[69] In the case of the advanced group, the past form equals the present form but the standard deviation is lower

Statistically, the table shows that the L2 groups performed similarly on both forms unlike the native speakers group. A non-parametric Kruskal-Wallis test revealed that there was no significant difference between the groups in the past form (X2 (3) =.95, *p* >.05), but there was a significant difference in the present form (X2 (3) =28.9, *p* <.001). Mann-Whitney *U*-tests indicated a significant difference between the native speaker group and the L2 groups.[70] In addition, the intermediate EFL group was identified as being significantly different from the other L2 groups.

To sum up, even though the L2 groups' suppliance is not numerically high, they seem to have no problem using the progressive form in the intended context as the native speakers do. This performance does not appear to be influenced by verb type or learning context. However, when they deviate from the intended forms, they show reminiscent effects of L1 grammar.

5.4.1.3 Present habitual

Figure 5.15 demonstrates the suppliance rate for present tense morphology in the intended contexts by all groups. Actual suppliance rates and standard deviations are provided below the figure for the descriptive statistics.

---

[70] Being used in place of post-hoc tests (see Larson-Hall 2010)
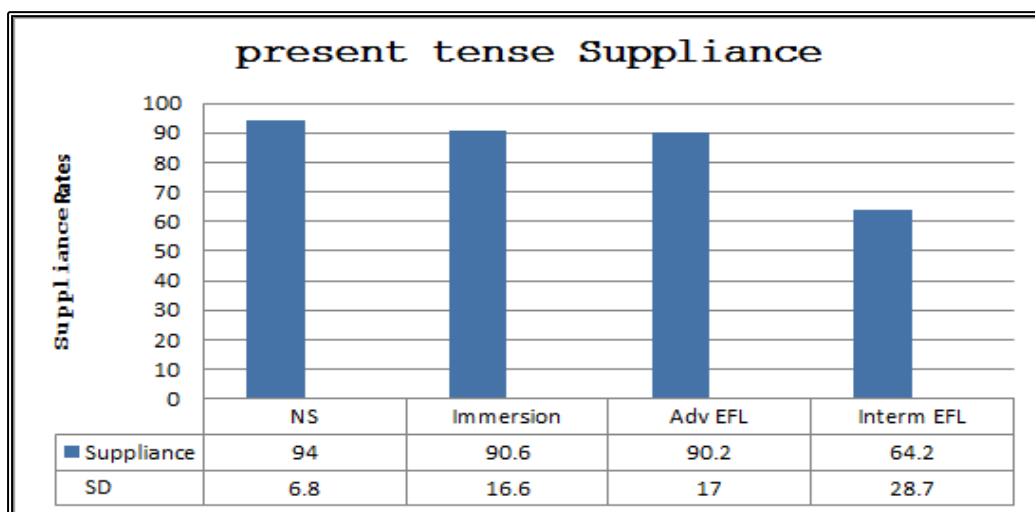
Figure 5.15: Suppliance rate for the present tense morphology in the gap-filling task 1

The figure demonstrates a high suppliance rate for the present morphology by the native speakers, immersion, and the advanced EFL groups. Surprisingly, the intermediate group shows an unexpected suppliance rate of around 64%. The one way ANOVA test confirmed this finding, revealing that there was a significant group effect (F (3, 74) = 10.5, $p <0.001$). Comparisons using *Bonferroni's post hoc* revealed that the three groups are not different from each other, but they are all significantly different from the intermediate group.

To examine other competing forms produced in the contexts of the present, Table 5.15 shows the percentage of mean suppliance of the different forms produced in the present tense contexts by the group:

Group	Present Progressive	Past	Past Progressive	Others
NS	.6%(2.6)	.6% (2.5)	0%(0)	4.3%(5.5)
Immersion Group	1.1%(5.5)	0%(0)	.5%(2.5)	7.6%(16.5)
Advanced EFL	2.1%(6.1)	0%(0)	0%(0)	7.6%(12.6)
Intermediate EFL	11.3%(13.6)	2.3%(4.7)	.4%(2.2)	21.5 (20)

Table 5.15: Mean suppliance of other forms used in the present tense contexts

195

The interesting case from the above table is the intermediate group, in particular, those in the present progressive and others columns. To examine which of these two is produced more, a non-parametric Wilcoxon paired test was conducted, revealing that there is a significant difference between the two columns ($Z = -2.09$, $p < .05$). In other words, the intermediate group produced more modals, bare forms, and other forms in the context of the present contexts. A closer examination of the responses revealed that the intermediate group answered a number of sentences with modals and other non-intended forms:

6. There is a bank in a nearby town. You …..…………………………. (need) to take the bus to get there.
7. Alexandra has a strong passion for history. Whenever she is free, she………………………………… (read) about ancient civilizations.
8. Jenny usually ………………..……………. (cycle) to school, but today she will take the bus because it ………………..……………..(rain)

They answered these sentences with modals such as *you must need* or *she may read.* In addition, they used other non-intended forms such as the verb *ride* in combination with *cycle* as in *ride cycle*.

To sum up, although the intermediate group's suppliance is not high as the other L2 groups, they seem to have no problem in using the present tense morphology in the intended contexts. Furthermore, this form is not in competition with another form, but misinterpretations and mis-understandings of the task have resulted in a lower suppliance rate, when compared to the other groups.

5.4.1.3 Past progressive

Figure 5.016 summarises the participants' suppliance rate for the past progressive morphology in the intended context of the past progressive categorised by the experimental

groups. Actual suppliance rates and standard deviations are provided below the figure for the descriptive statistics.

Past Progressive Suppliance	NS	Immersion	Adv EFL	Interm EFL
Suppliance	75.5	73.7	49.5	49.5
SD	17.3	26.6	14.7	21.6
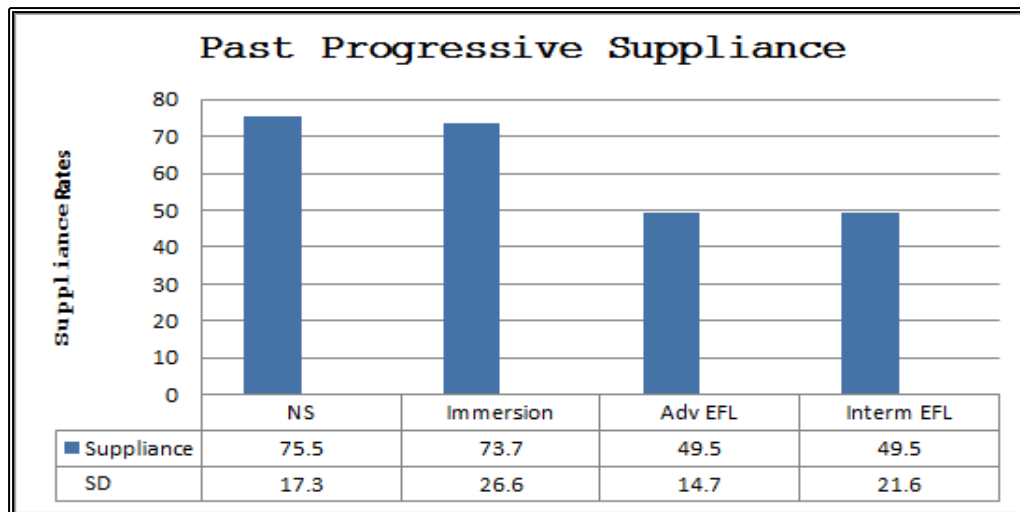
Figure 5.016: Suppliance rate for the past progressive morphology in gap-filling task 1

It is clear from the graph that the native speaker and immersion groups outperformed the EFL groups in their suppliance. The EFL groups seem to have had some difficulty in producing the target morphology in the intended context. The one way ANOVA test confirmed these findings, revealing a significant main effect for the group ($F(3,74)= 9.4, p <0.001,$ *Partial* $\eta^2=.39$). *Tukey's post hoc* tests indicated that there is no difference between the native speaker and immersion group, showing that they significantly supplied the progressive morphology in the intended past contexts to a greater degree than the EFL groups. Furthermore, the advanced EFL group did not perform significantly different from the lower EFL group. These findings suggest that the lower intermediate learners did have difficulty in supplying the progressive morphology in the past contexts and this difficulty remains for the advanced learners as well. However, it is interesting that this difficulty arose in the EFL context.

However, it is critical and necessary to examine this difficulty more closely before jumping to conclusions. For instance, it is reported in the literature that L2 learners experience an observed difficulty with past progressive achievement verbs (Gabriele (2005) with Japanese learners; Christensen (2009) with Japanese and Saudi-Arabic; and Bardovi-Harlig (2002) observing this phenomenon in general).[71] Therefore, this shows the possibility that there is something difficult related to the verbal predicate about the past progressive. Table 5.16 summarises the suppliance rate for the past progressive categorised by verbal predicate:

Group	Durative	Stative	Achievement
NS	84.7% (17.5)	83.3% (21)	58.3% (30)
Immersion Group	81.5% (26.1)	79% (31.4)	60.5% (37.5)
Advanced EFL	68.7% (17)	59.3% (24)	20.1% (26)
Intermediate EFL	60% (25)	57% (32)	31.3% (28)

Table 5.16: Mean suppliance of past progressive morphology broken down by verbal predicate

It is clear from the descriptive statistics that an interesting pattern emerges for performance on the verbal predicate. The groups were less likely to supply the past progressive when the verb is achievement compared to another type. Suppliance rates on all verbal predicates were submitted to a factorial RM ANOVA test as within-subjects factors and proficiency level (group) as a between-subject factor. Results (sphericity assumed) revealed that there was a significant effect for verb type ($F(2,148)= 46.5$, $p <0.001$,*Partial η^2=.38*), but no significant effect for the interaction verb type x group ($F(6,148)= 1.4$, $p >.05$,*Partial η^2=.05*). In order to examine where the differences lie, multiple comparisons using *Bonferroni's post hoc* tests were conducted. Results revealed that the participants were less likely to supply the intended morphology when the predicate included achievement, and suppliance rates to durative and

---

[71] See also Wagner (2001) for L1 acquisition.

stative verbs were not different from each other. This pattern exists in the native speaker and L2 groups and mirrors what was reported in the L2 literature about the difficulty with achievement verbs in the past progressive (Gabriele 2005; Christensen 2009).[72] Furthermore, *Pairwise comparisons* indicate that the advanced group performed similarly to the immersion group on the durative verbs and slightly different on the stative verbs (*p*= .04, effect size *r*=.33), whereas they were different from each other on the achievement verbs. The intermediate group, however, performed to a degree similar to the advanced EFL group on all of the verbal predicates.

Crucially, these results show that most learners came to use the appropriate form in the intended context. However, their performance displays some problems related to the verbal predicate, although this difficulty is observable in the performance of the native speakers as well. Therefore, it is crucial at this point to observe other forms used in past progressive contexts so as to compare the divergence between all groups.[73] Table 5.17 summarises the mean suppliance for other forms used in the past progressive contexts categorised by group:

Group	Present	Past	Present Progressive	Past Perfect	Present Perfect	Others
NS	.5%(1.9)	18%(20)	0%	2.7%(4.1)	0%	0%
Immersion	.8%(2.6)	15%(13.5)	0%	1.7%(5.2)	2.1%(3.7)	6.1%(15)
Advanced EFL	5.2%(6)	28.6%(18.5)	3.1%(5)	1.1%(4.1)	1.5%(3.3)	11%(9)
Intermediate EFL	6.1%(11)	20.4%(18.7)	4.8%(7.7)	0%	.33% (1.6)	16.6%(19.6)

Table 5.17: Mean suppliance of other forms used in the context of the past progressive

It is clear from the descriptive statistics in the table that the groups were more likely to interpret some sentences as *perfective* and supply the perfective morphology in the context of

---

[72] Both studies focused on the judgment data whereas this study focused on both judgment and production data and the similarity was only found in the production data.

[73] Recall that the native speakers interpreted the perfective reading with stative verbs as acceptable in the Acceptability Judgment task-1.

the past progressive (see the past column). The native speakers produced a suppliance rate of 18% for past morphology, and the L2 groups followed the native speaker group in their performance of producing the perfective morphology. To compare the performance between the groups in the past column, a non-parametric Kruskal-Wallis statistical test was conducted. Results indicate that there was no significant difference between the groups in the suppliance of the past morphology (X^2 (3) =4.6, *p* >.05). Crucially, the findings suggest that some participants interpreted some sentences as *perfective* instead of *ongoing*. The participants displayed a uniform pattern in this performance. The L2 groups followed the native speakers in divergence from the intended context and produced the past forms in these contexts. A closer examination of the tested sentences reveals that some of them were interpreted as completed by all the groups:

9. When the photo-finish appeared on the screen, Dan…………….. (cross) the finish line.
10. At the same time as the party started, I …………………….. (leave) home.

The native speakers interpreted these sentences as perfective and produced the past form of these forms.[74] The L2 groups followed the native speakers and used the past form in these contexts as well.[75] Furthermore, the EFL Intermediate group, in particular, produced other forms in the past progressive contexts. One crucial observation is the suppliance of non-target-like forms that are not present in either the target language or in the input such as *be+ bare v* forms. Interestingly, this form is not found in the input and the intermediate EFL group supplied this form. However, this observation is very low in terms of numbers, although still interesting because such a construction is not present in the L2 input (see Hawkins & Casillas (2008),[76] and Ionin & Wexler (2002) for similar observations).

---

[74] Some native speakers produced the past perfect in the context of *cross.*
[75] It is hard to control the interpretation in this kind of task
[76] Hawkins & Gasillas (2008) proposed an innate account to this observation

Overall, performance on the past progressive shows native speaker variability emerging from the experimental design and related to the lexical aspect. This variability found its way into the performance of the L2 groups as well. However, a closer investigation shows that most learners came to acquire the knowledge of the past progressive and produce it appropriately in native-like contexts. This knowledge seems to be in place even though some properties of lexical aspect are lagging behind. Crucially, as stated earlier, the past progressive is generally lagging behind and hard to acquire (Bardovi-Harlig 2002).

5.4.1.4 Summary of findings on gap-filling task 1

Taking all the results together, the L2 groups seem to have the knowledge to produce the intended morphology in native-like contexts to a large degree. Although the suppliance rates for the L2 learners are not as numerically high as for the native speakers, they are not statistically different. The immersion and advanced EFL groups performed similarly to the native speakers except in the case of past progressive achievements. Moreover, they followed the same path as the native speakers with regard to lexical aspect and the suppliance of other forms. The intermediate EFL group, on the other hand, showed evidence of difficulty and lagged behind in performance. However, the analysis of other forms demonstrates that this performance is not mainly influenced by L1 properties, rather than being an indication of restructuring grammar.

Overall, the findings seem to indicate that the L2 groups came to have knowledge of how to use the morphology in the appropriate contexts. Therefore, they seem to demonstrate, by implication, the necessary knowledge of how to *interpret* these forms.

5.4.2   Passage gap-filling task 2

This part was a passage with a number of blanks followed by uninflected verbs within brackets. The participants were required to read the passage carefully and use the given verbs to supply the appropriate form of the verb. The first analysis was conducted to see whether the L2 groups performed like the native speaker group or not. This analysis was conducted using factorial ANOVA statistical tests. Furthermore, follow-up and deep analysis was conducted to examine verb type or other effects. Finally, performance on both forms was summarised and compared.

5.4.2.1 The main RM ANOVA

Suppliance rates in the preterite and present perfect contexts were submitted to RM ANOVA with group between-subject factor. The results (sphericity assumed) indicate that there was a main significant effect for type (F (1, 73) $=84.2$, $p < 0.001$, *Partial* η^2 $=.54$) and group (F (3, 73) $=15.8$, $p < 0.001$, *Partial* η^2 $=.39$). However, the interaction between group x type was not significant, (F (3,73) $=21.8$, $p =.09$, *Partial* η^2 $=.08$. *Pairwise comparisons* revealed that the native speaker group was significantly different from the L2 groups and that there was a significant difference between both types. Figure 5.017 is a graphical visualisation of the data:
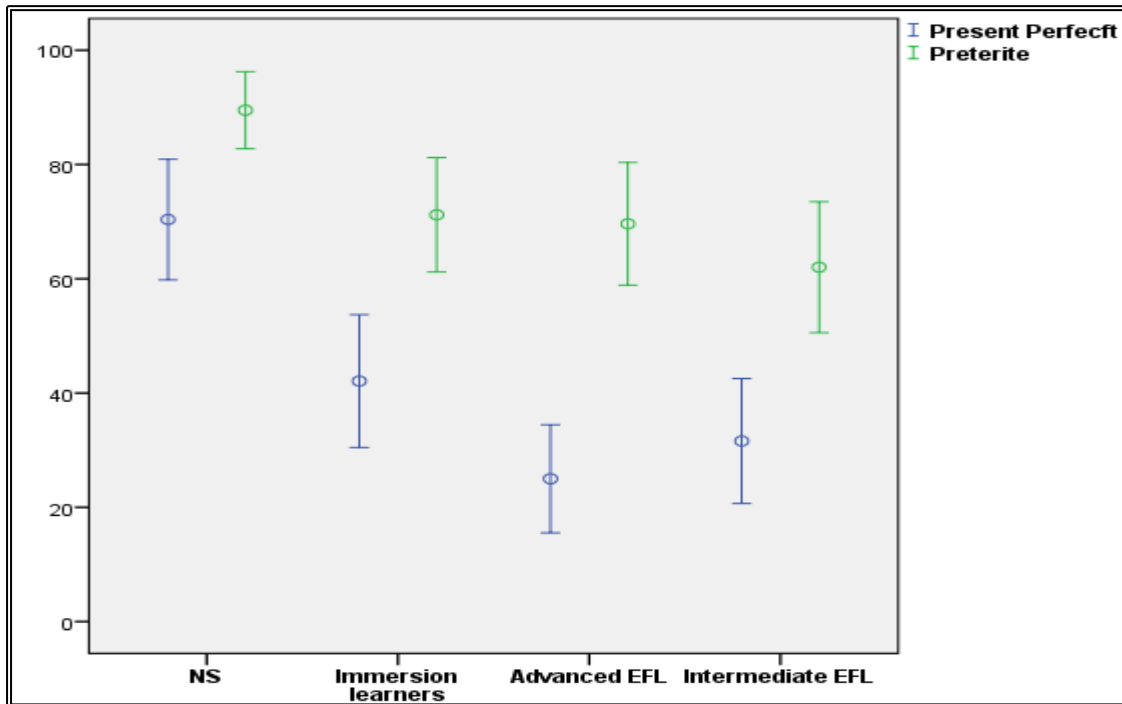
Figure 5.017: Error plots for all the experimental conditions in gap-filling-2 by proficiency level

5.4.2.2 Present perfect morphology

Figure 5.18 summarises the suppliance of the present perfect morphology in the intended present perfect contexts by all groups.[77] Actual suppliance rates and standard deviations are provided below the figure for the descriptive statistics:

---

[77] In this exercise, the number of participants for the intermediate EFL group is 24. This is because one set of result is missing due to a procedural error.
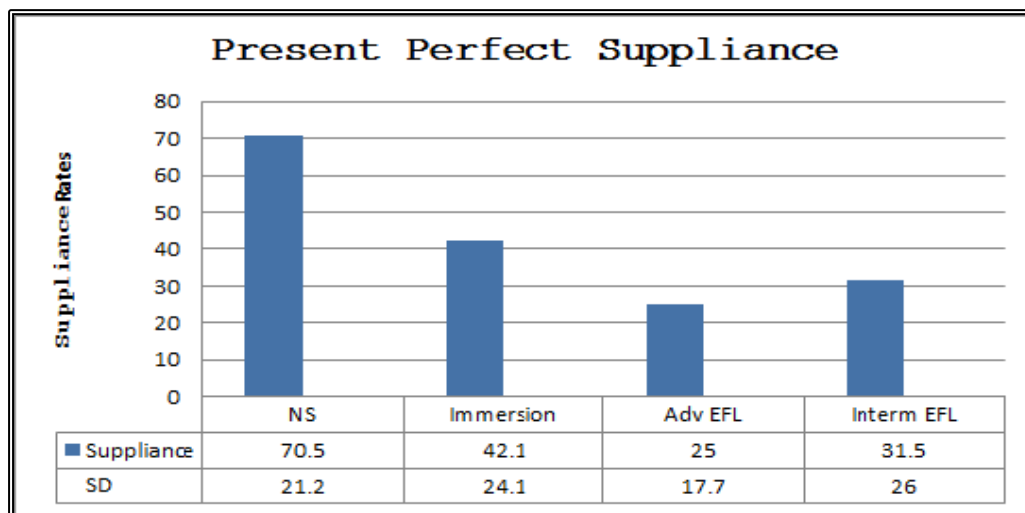
Figure 5.18: Suppliance rates for the present perfect in the gap-filling task-2

The descriptive statistics show a fairly consistent rate of suppliance in the case of the native speakers, but notably lower rates in the case of the L2 groups. The L2 participants were clearly less likely to supply the present perfect morphology in the intended contexts. The one way ANOVA test confirmed this conclusion, revealing a significant group effect ($F(3,73)=$ 13.8, $p <0.001$, *Partial* $\eta^2=.56$). *Post-hoc* comparisons using the *Bonferroni adjustmen*t for multiple comparisons indicated significant differences between the native speaker group and the L2 groups. Moreover, there were no significant differences between the L2 groups. In other words, all the L2 groups performed similarly to each other regardless of proficiency level or learning context.

However, it is necessary to dig deeper into the performance of the participants to investigate any other effects resulting in lower suppliance. Table 5.18 summarises the suppliance rate for the present perfect morphology in the passage gap-filling task categorised by verb type:

Group	Durative	Stative [78]	Achievement
NS	90.2%(15.2)	55.5%(38)	65.1%(24.5)
Immersion Group	50%(33.33)	36.8%(28.1)	39.5%(25.5)
Advanced EFL	31.1%(26.6)	18.7%(25)	25%(25)
Intermediate EFL	31.1% (33.2)	39.5%(39)	24%(23.8)

Table 5.18: Mean suppliance of present perfect morphology broken down by verbal predicate

The table demonstrates the distribution of suppliance rates by verb type. The descriptive statistics show that the L2 groups almost treated the verbal predicates similarly to each other. The RM ANOVA test (sphericity assumed) indicated that there was a main effect for the verb type ($F(2,146)= 7$, $p <0.05$, *Partial* $\eta^2=.09$) and the interaction between verb type x group was significant as well ($F(6,146)= 3.5$, $p <0.05$, *Partial* $\eta^2=.12$). *Pairwise* comparisons revealed that the native speaker group was more likely to supply the present perfect morphology when the predicate was durative compared to the other types. In addition, the L2 groups did not distinguish between verbal predicates, and the performance on them was similar. In other words, the low performance was not a result of a verbal type effect. However, there was an effect in the case of the native speakers. This effect is consistent with Comrie's (1976) account whereby achievement verbs are inherently compatible with preterite tense forms. Accordingly, a deeper analysis of other forms used in the context of the present perfect is required.

Crucially, it is critical at this point to examine the other forms used in contexts of the present perfect. The examination might also reveal any other factors that contributed to low suppliance in the performance of the L2 groups. Table 5.19 summarises the mean suppliance of other forms used in the present perfect contexts:

---

[78] There were only 2 items

Group	Present	Past	Present Prog	Past Prog	Past Perfect	Others
NS	6.5%(7)	17%(16.4)	.5%(2.3)	0%(0)	0%(0)	2.2%(4.2)
Immersion group	3.6%(5.9)	40%(22.1)	.5%(2.2)	.5%(2.2)	0%(0)	12.1%(22.5)
Advanced EFL	5.6%(8.1)	57.5%(28)	0%(0)	3.1%(6)	3.7%(10.2)	3.7%(8)
Intermediate EFL	5.4%(7.2)	34.5%(24.6)	.8%(2.8)	1.2%(4.4)	.8%(4.1)	26.6%(29.5)

Table 5.19: Mean suppliance of other forms used in the context of the present perfect

The examination of other forms revealed a notable over-suppliance of the past form produced in the present perfect contexts. The numbers indicate that the L2 learners, particularly at the advanced levels, used the past form almost in competition with the present perfect form. To compare the performance between the groups in the past column, a non-parametric Kruskal-Wallis statistical test was conducted. The results revealed a significant difference between the groups in the suppliance of the past form (X^2 (3) =20.15, p <.001). Additionally, a series of Mann-Whitney U-tests indicated that the native speaker group was significantly different from the L2 groups. Moreover, there was no significant difference between the immersion group and the EFL groups. However, the advanced EFL group was significantly different from the EFL intermediate group (U = -2.43, p >.05). This behaviour reflects what is in L1 grammar. The perfective form can denote both the preterite and the present perfect and the context determines the intended reading. A non-parametric Wilcoxon paired test was used to compare performance on the past and the present perfect, with results indicating that the immersion and intermediate EFL groups did not distinguish between the two forms, while there was a significant difference in the case of the advanced EFL group, but only for past suppliance (Z=-2.5,P<.05).[79] Generally, the numbers altogether indicate that the present perfect suppliance was low and caused a persistent difficulty to L2 groups. This provides support for the difficulty in the acceptability judgment task for the present perfect.

---

[79] For the native speakers , there was a significant difference for the present perfect suppliance

5.4.2.3 Preterite morphology

Figure 5.019 summarises the suppliance rates for preterite morphology in the intended past contexts by all groups:
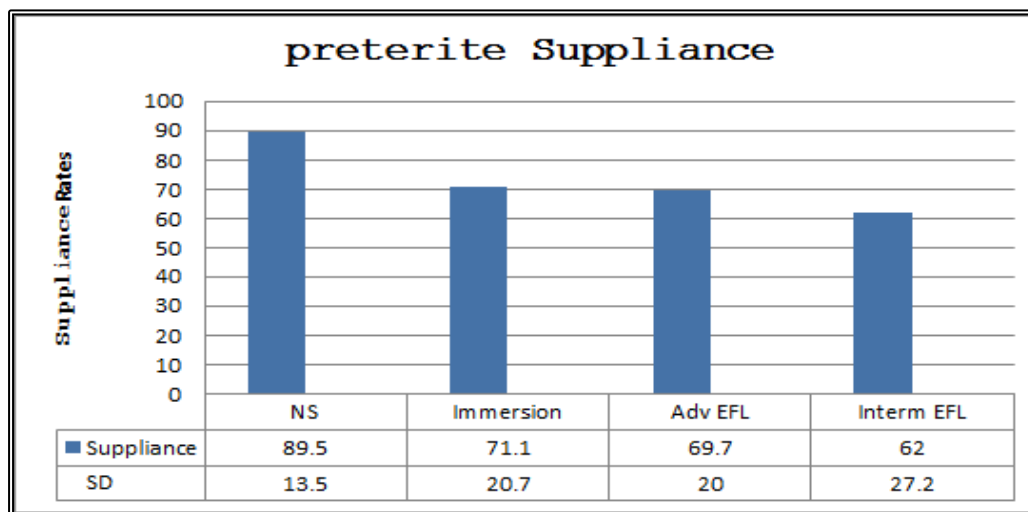
Figure 5.019: Suppliance rates for the preterite morphology in the gap-filling task-2

The suppliance rates demonstrate that the native speakers highly produced the preterite form in the obligatory contexts, whereas the L2 groups supplied the preterite form to a fairly notable degree, and almost similar in their suppliance rates and standard deviations. The one way ANOVA test revealed that there was a significant difference between the groups $(F(3,73)= 5.7, p <0.05, Partial \ \eta^2=.23)$. *Post-hoc comparisons* using the *Bonferroni adjustmen*t for multiple comparisons revealed that the native speakers group was significantly different only from the intermediate EFL group (MD=27.5, CI=9.2, 45.7). In addition, there was no significant difference revealed between the L2 groups. Crucially, the numbers indicate that although the suppliance rates for the L2 groups are not numerically as high as for the native speakers, they appeared to have no problem in producing the preterite form in the intended context, even from intermediate levels, and by implication, have the knowledge to interpret and use the form in the appropriate context. In order to examine any effects of

lexical aspect, Table 5.20 demonstrates the suppliance rates of the preterite marking broken by verbal predicate:

Group	Durative	Stative	Achievement
NS	89%(6.6)	90%(6.3)	89%(5.5)
Immersion Group	56.5%(6.5)	86%(6)	71%(5.4)
Advanced EFL	53%(7)	79%(6.7)	76%(5.9)
Intermediate EFL	58%(5.7)	69%(5.5)	58%(4.8)

Table 5.20: Mean suppliance of preterite morphology broken down by verbal predicate

The table demonstrates the distribution of suppliance rates by verb type. The descriptive statistics show that the native speakers almost performed the same on all verb types. Similarly the intermediate group performed equally on the verb types, whereas the advanced groups displayed a preference to supply the preterite marking with achievement verbs. The RM ANOVA test (sphericity assumed) indicated that there was a main effect for the verb type ($F(2,146)= 15.3$, $p <0.001$, *Partial* $\eta^2=.17$) and the interaction between verb type x group was significant as well ($F(6,146)= 3.1$, $p <0.05$, *Partial* $\eta^2=.11$). *Pairwise* comparisons confirmed the descriptive numbers, showing that the native speakers performed equally on all verb types. However, the advanced groups were more likely to produce the preterite morphology with achievement, and stative verbs more than durative. On the contrary, the intermediate group supplied the preterite morphology equally with all verbal predicates like native speakers.

The last step is to examine the distribution of other forms produced in the preterite contexts. Therefore, Table 5.21 summarises the suppliance means for the other forms used in these contexts:

Group	Present	Present Perfect	present Prog	past Prog	Past Perfect	Others
NS	7.1%(11.1)	1.5%(3.4)	0%(0)	0%(0)	.5%(2.1)	1.5%(4.6)
Immersion Group	11.5%(14.7)	4.7%(7.6)	0%(0)	0%(0)	3.3%(6.2)	10.1%(11.6)
Advanced EFL	11.3%(11.7)	7.3%(8.2)	0%(0)	1.7%(6.8)	3.4%(8.1)	6.3%(11.3)
Intermediate EFL	8.7%(15.2)	4.1%(8.8)	1.1%(4)	0%(0)	.4%(1.8)	24.2%(26)

Table 5.21: Mean suppliance of other forms used in the context of the preterite form

The distribution of other forms in the table does not show any surprising or significant results. However, there are some observations about the distribution and performance of the L2 groups. First, there are some participants who produced the present perfect morphology in the context of the preterite tense. Although this suppliance is low, it shows that are some participants who think that the present perfect can be used in these contexts. In addition, there were some incidents of present tense use in the context of the preterite form. The participants supplied the preterite form first, followed by the present tense. However, the suppliance rate is low as in Table 5.21, although it can be traced to L1 grammar because it is possible not to use temporal clause agreement. Arabic exhibits fewer restrictions on tense agreement between clauses than does English. However, this needs further investigation. Finally, there was again suppliance of the *be+bare v* construction at the intermediate level classified under the "others" column, even though this suppliance is low and non-indicative.[80]

To sum up, the suppliance rates indicate that the L2 participants have come to know and use the preterite form in the intended context. The examination of other forms produced in the context of the preterite did not reveal any competing form, but did reveal a distributed performance.

---

[80] Not all the 24% is like this construction

5.4.2.4   Summary of findings on gap-filling task 2

The findings from the gap-filling task 2 indicate that the L2 participants produced the preterite form to a comparable native-like degree, but faced a persistent difficulty with the present perfect morphology, even at the advanced level. However, there is, in fact, a low rate of present perfect morphology which does not reach a native-like degree. Although the native speakers' suppliance was not so high around 71%, the examination of the other forms produced instead of the present perfect did not reveal any significant competing form. Also, although it is not a high percentage, it is well-attested that variability can be found in the native speakers on the acquisition of interface phenomena such as discourse-syntax or syntax-semantics interface (Prévost 2011), and the examination of the other forms did not reveal significant past use around 17%.[81] On the other hand, the investigation of other forms in the case of the L2 groups revealed a notable tendency towards preterite suppliance in the present perfect contexts. This can be translated as them encountering a problem in recognising the interpretation of the present perfect and struggling to produce it. In other words, they still lack the necessary knowledge to interpret and use this delayed property in their ILG.

5.5   The Relationship between Acceptance and Written Production

In this section, I will examine the relationship between performance on acceptance tasks and gap-filling tasks.[82] The goal is to examine whether the performance on the production tasks mirrors what is found in the acceptance tasks. In other words, can written production (*use*) inform us about underlying knowledge (*interpret*) in this domain?   This question has theoretical and practical significance (see Gabriele 2005; Montrul & Slabakova 2002; Bardovi-Harlig 2002; Collins 2007; see also the section on the morpheme order studies in section 3.2). However, more details and discussion for its significance will be provided later

---

[81] Although the context is designed to elicit the present perfect tense, extragrammatical factors might occur.
[82] The results from two participants (one native speaker and one from the intermediate EFL group) were factored out in this analysis because some of their tasks were missing or not completed.

in section 6.5 in chapter 6, while in this section we will be interested in reporting the relationship (if it exists) between the knowledge of how to use and the knowledge of how to interpret the form.

The findings of the two tasks (acceptance and gap-filling) were previously reported. The knowledge of how to interpret the form was identified as the ability to distinguish between the two contrasting continuations. In particular, Saudi Arabic learners of English have to show an acceptance tendency for felicitous and appropriate continuation and a rejection tendency for infelicitous and inappropriate continuation. The knowledge of how to use was identified as the ability to supply the appropriate form in the intended context. Therefore, there were a number of procedural steps taken to examine the kind of the relationship (if it exists) between both kinds of knowledge. First, a Spearman rho correlation was conducted for the property under investigation between the expected *acceptance* tendency and the suppliance of the form in the appropriate context. This is a procedure that allows us to examine whether L2 learners might *interpret* the form before using it appropriately or vice versa. Then, a second Spearman rho correlation is conducted again but between the other continuation (rejection) and the suppliance rate of the form. This step can inform us whether L2 learners might *use* the form before fully interpreting it or vice versa. In other words, if there is an existing relationship between the two tasks, we expect to see the same problems (if reported) arising in both tasks, with correlating results. Obviously, the knowledge of how to use the form necessarily involves knowledge of how to interpret the form (Gabriele 2005; Montrul & Slabakova 2002; Slabakova 2003).

Table 5.22 summarises the correlation coefficients between the performance on the gap filling task and the acceptance task for all the groups:

Gap Filling Task	Acceptance task	NS	Immersion	Advanced EFL	Intermediate EFL
Present Progressive	Acceptance	.28	.34	.37	.13
	Rejection[83]	-.074	-.49*[84]	.33	-.17
Present Habitual	Acceptance	.34	.15	.19	.37
	Rejection	.48*	-.027	-.15	-.55**
Past Progressive	Acceptance	.314	.34	.02	.017
	Rejection	-.22	-.05	-.43	-.367
Preterite	Acceptance	-.25	.03	.56*	-.04
	Rejection	-.038	.309	-.078	-.24
Present Perfect	Acceptance	-.072	-.079	.007	-.210
	Rejection	-.035	-.28	-.201	-.009

Table 5.22: Summary of Spearman rho correlation coefficients of suppliance rates in gap-filling tasks and acceptance means in the acceptability judgment tasks

The table generally shows that no correlation exists between performance on the gap-filling tasks and performance on the acceptability tasks. The results indicate that rates and means are randomly distributed and do not form a hypothetical straight line. The correlation coefficients are low or close to zero, as shown in Table 5.22. This indicates no obvious *correlating* relationship between performance on the gap-filling tasks and acceptability tasks. However, the data is visually presented in Figure 5.020 to gain a better reflection of this.

---

[83] Rejection of the other continuation

[84] *$p<.05$, **$p<.01$, ***$p<.001$
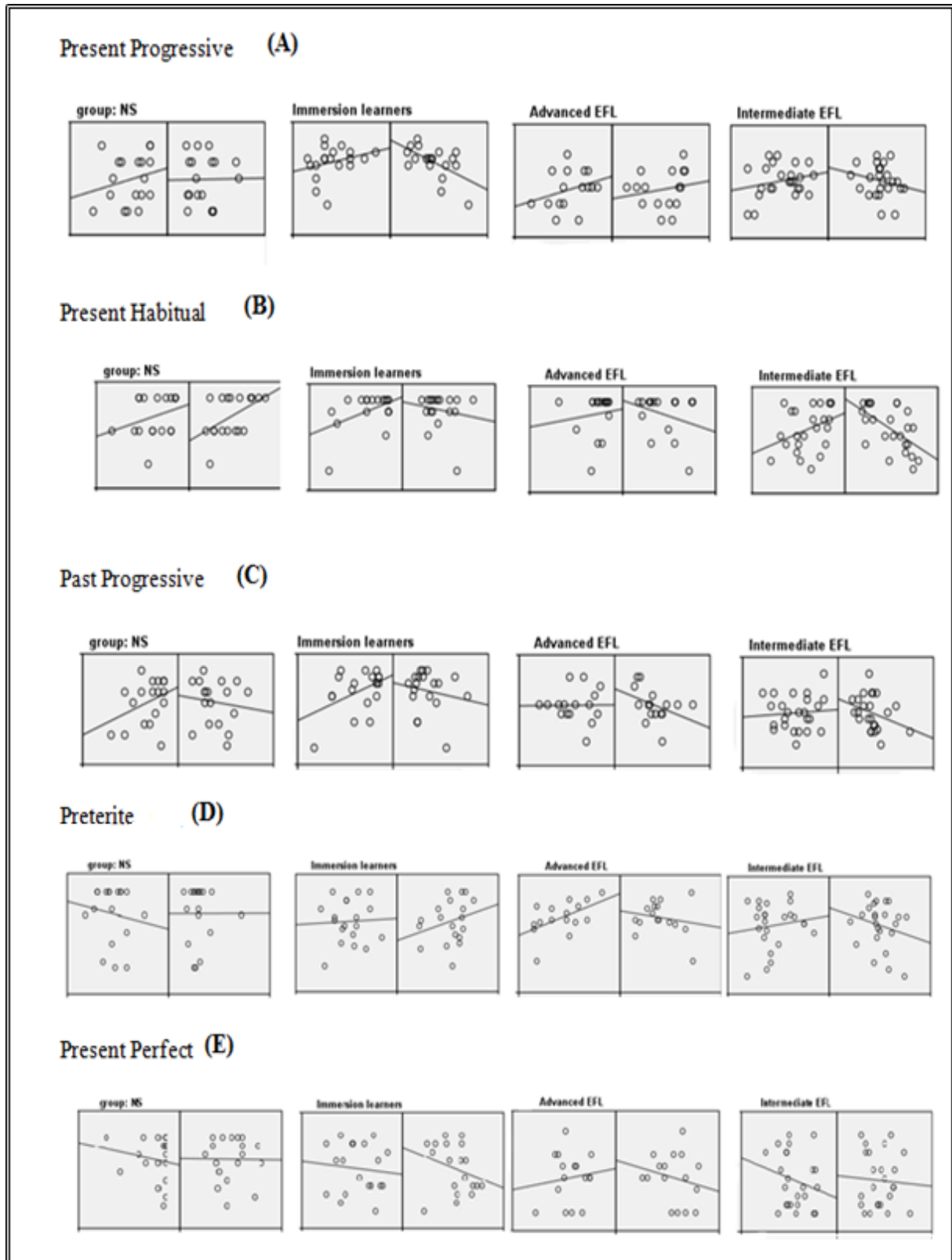
Figure 5.020: Scatter plots showing the relationship between performance on the gap-filling tasks and acceptance tasks by all the groups

The graphs demonstrate suppliance rates for the gap-filling tasks on the Y-axis and the acceptance (first) vs. rejection (second) means for the acceptability judgment tasks on the X-axis. Crucially, the visualisation of the data supports the findings from the Spearman rho statistical, whereby there is no obvious correlation between both tasks. In other words, this finding disproves our first prediction in this section that the results for both tasks should numerically *correlate*.

The question now is why there is no correlation between the two tasks. This question is particularly important for assessing in detail the relationship between both tasks in order not to result in Type 1 or Type 2 errors. If the design and the number of the participants are the result of the relationship not appearing in the statistical calculations, further inspection is required. New analysis was therefore undertaken by dividing the groups based on the L1. Although this analysis included importing all the different L2 groups into one group (the SA group), it was necessary to examine this effect because there were some properties where the performance for the L2 groups was comparable to each other. However, the analysis again did not reveal a general pattern of correlation. Table 5.23 summarises the correlation coefficients:

Gap filling task	Acceptance task	NS	SA Groups
Present Progressive	Acceptance	.28	.16
	Rejection	-.74	-.29*[85]
Present Habitual	Acceptance	.33	.38**
	Rejection	.35	-.44**
Past Progressive	Acceptance	.314	.23
	Rejection	-.22	-.302*
Preterite	Acceptance	-.15	.15
	Rejection	-.038	-.071
Present Perfect	Acceptance	-.072	-.023
	Rejection	-.035	-.174

Table 5.23: Summary of Spearman rho correlation coefficients broken by L1 background

A new visualisation of the data based on the L1 background is shown in Figure 5.21. The Y axis refers to judgment data (accept/reject) while the X axis refers to the suppliance rates (supply). However, the graphical visualisation seems to display a sort of falling and rising line in the case of Saudi speakers in the A, B, C, and D constructions (see Table 5.23 for significant statistics), although not in the case of the present perfect (E) property. Thus, it seems that the absence of any relationship is not due to the number of the participants or the design.

---

[85] *p<.05. **p<.01 ***p<.001

A) Present Progressive
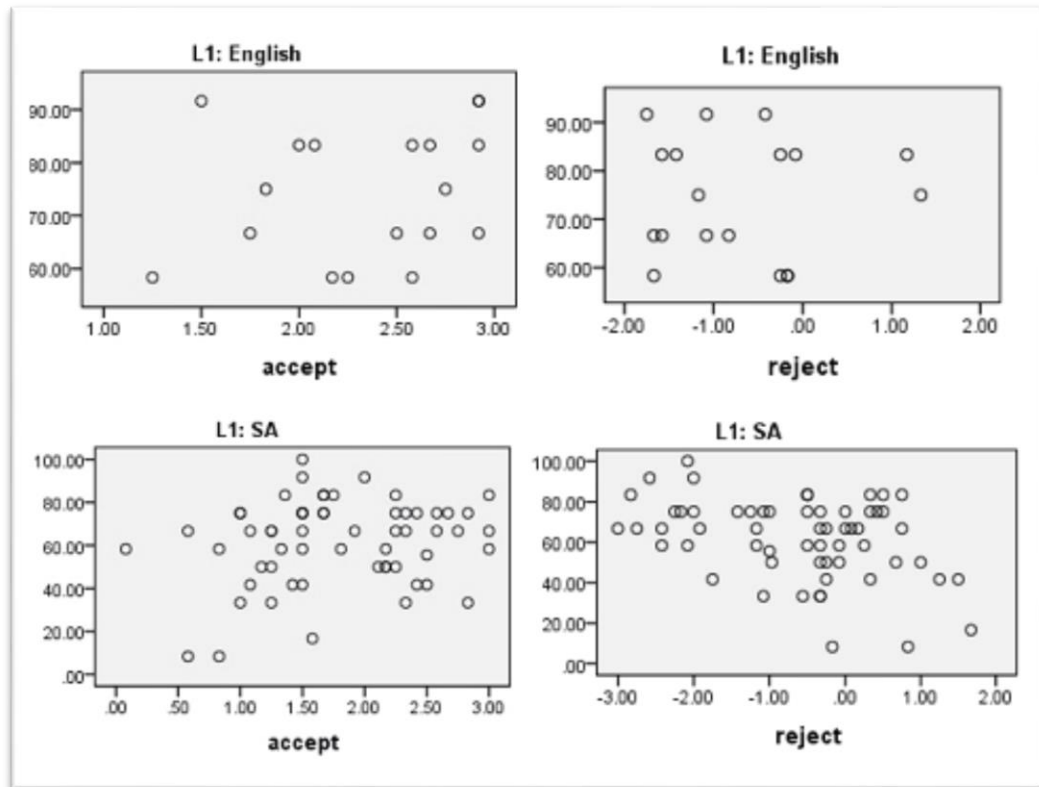
B) Present Habitual
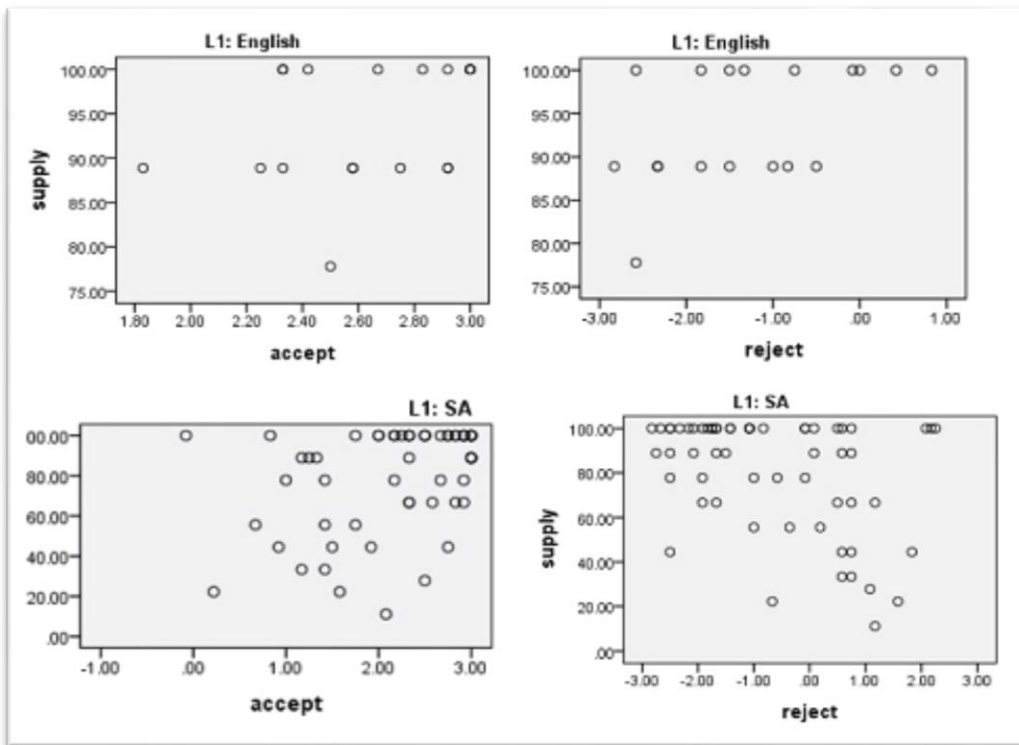
C) Past Progressive
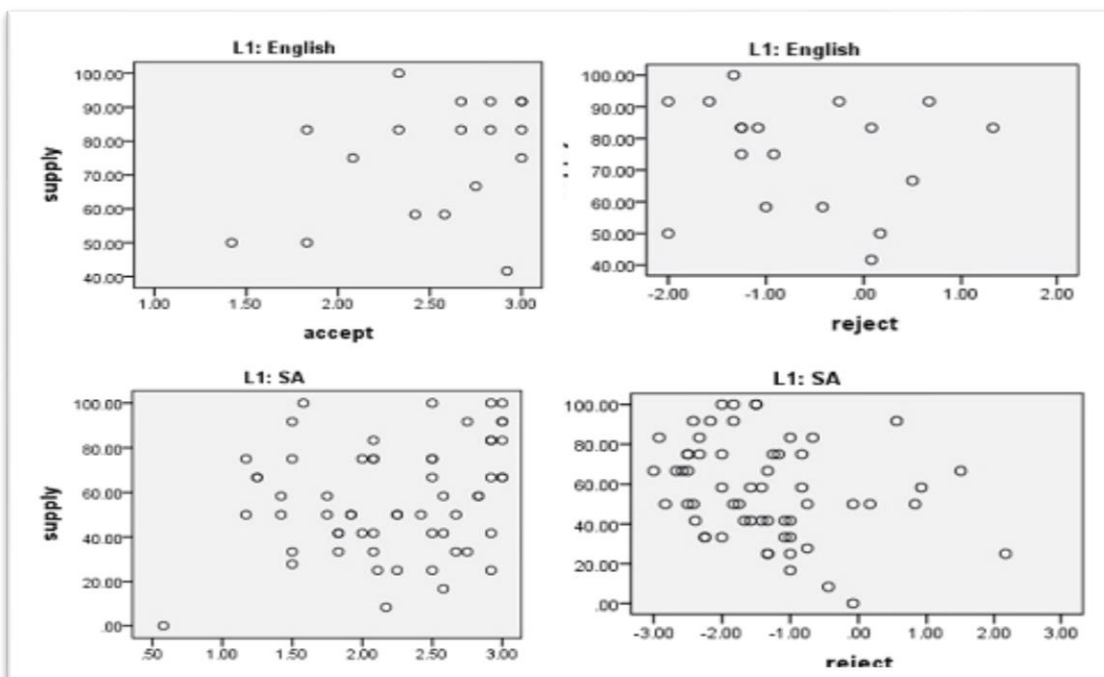
D) Preterite
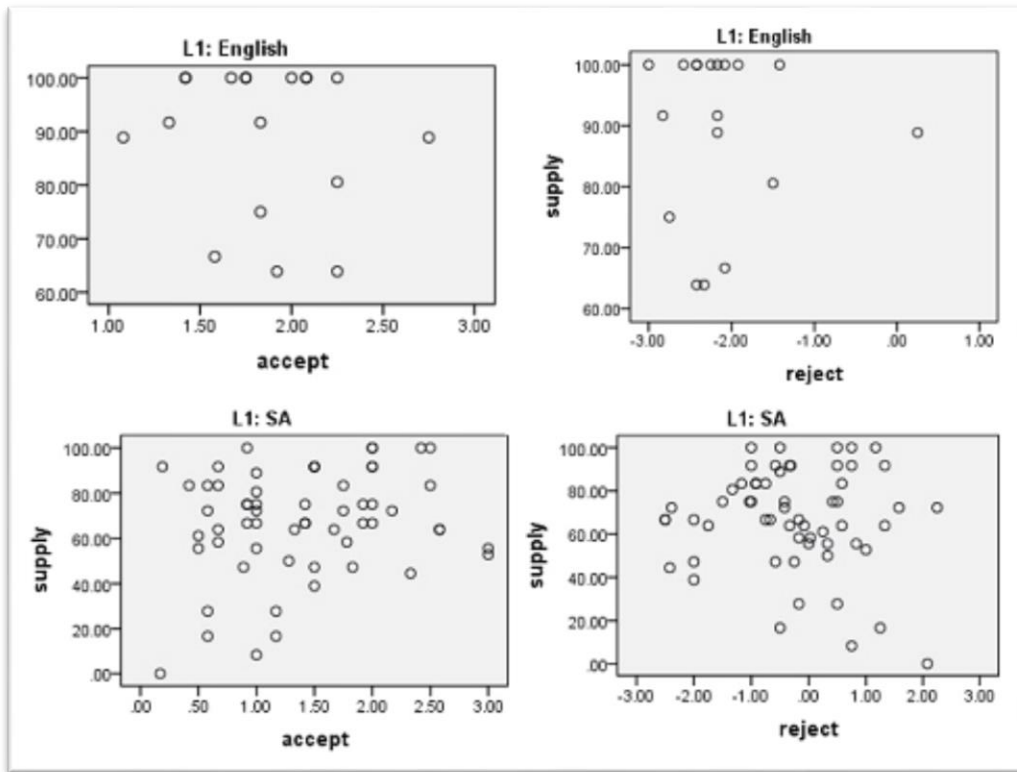
E) Present Perfect
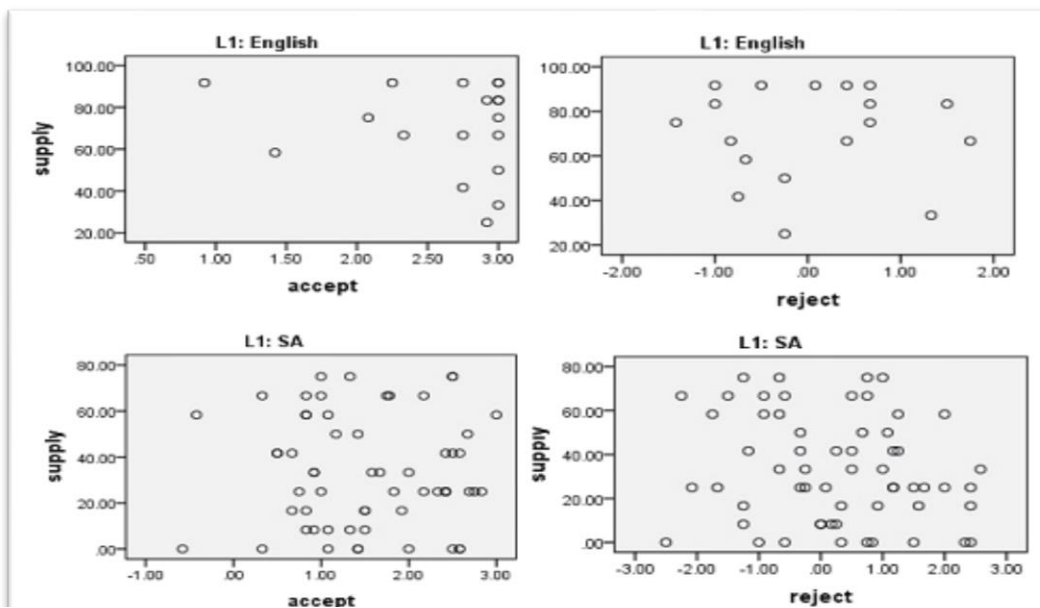
 Figure 5.21: Scatter plots showing the relationship between performance in the gap filling tasks and acceptance tasks by L1 background

Therefore, to gain a deeper understanding of the performance on both tasks, a scatter-plot of

the total means is graphically depicted in Figure 5.022:
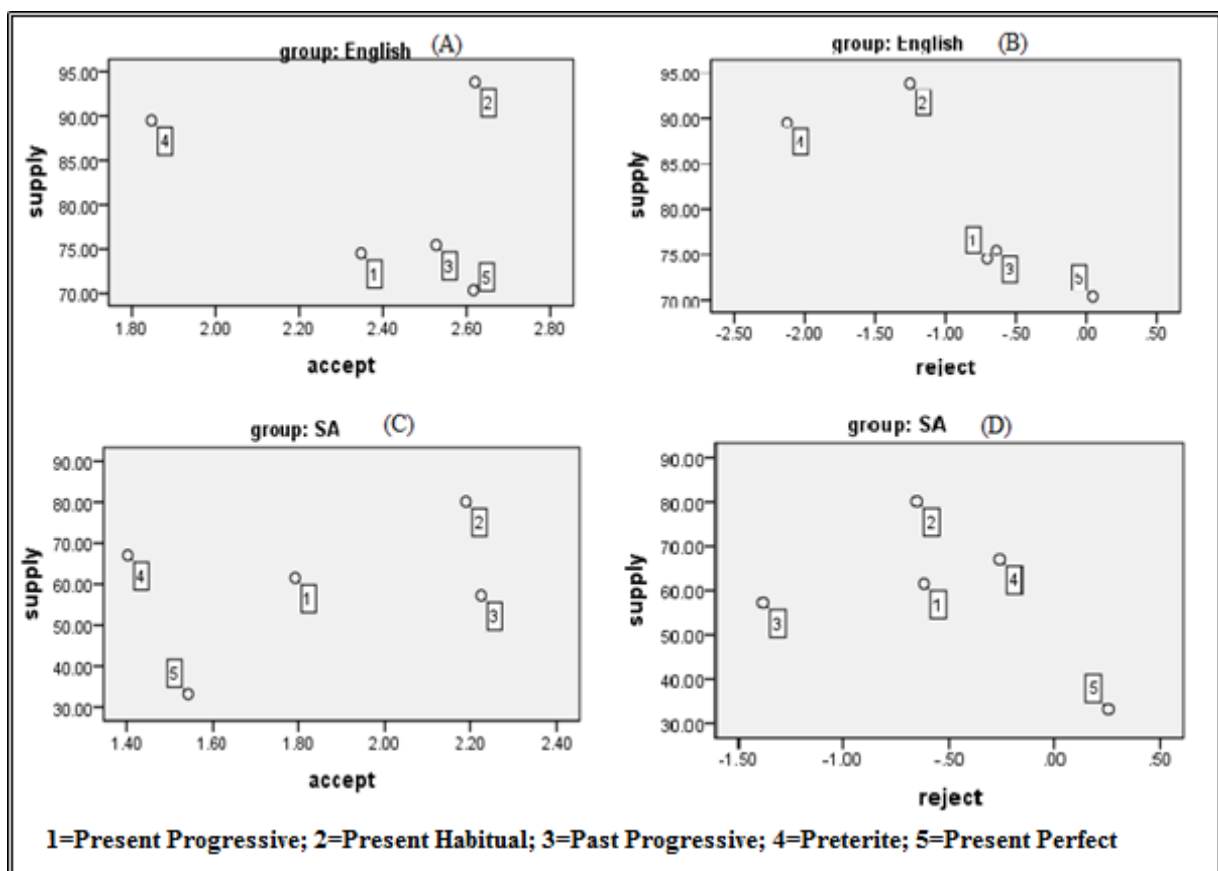
Figure 5.022: Scatter plots showing the relationship between total performance rates and total acceptance vs. rejection means by L1 background

The graphs demonstrate that a failure to find a correlation in the case of the present perfect

seems to be because of floor effects, i.e. participants score at lower level. This is apparent in

the performance of the L2 groups. They performed similarly to each other and scored very

low, hence, producing very little variance resulting in floor effects. However, these graphs

only partially explain the performance of the participants. There is no ceiling effect −
participants score at higher level − given that the Spearman rho tests reveal a significant
result for the present habitual.[86] Moreover, there were significant correlations, though low, in
case of the present progressive and past progressive (see Table 5.23) because of variability in
performance. Therefore, at the macro level, we can gain a better reflection of performance,
sometimes helpful in partially explaining the failure to find a correlating general pattern. To
summarise, the results from this section do not support our first prediction that the results
should numerically correlate. This finding contradicts what has been previously reported
whereby that knowledge of the form precedes knowledge of interpretation or meaning
(Gabriele 2005; Bardovi-Harlig 1992; see also Montrul (2004) for a further discussion).

However, the second prediction in this section holds true when comparing the difficulties in
both tasks. We predicted that learners will perform similarly in both tasks, and there will be
no better performance on the task of interpretation than on the task of use. According to
Salaberry (2008:248), interpretation-based tasks are clearly complementary to production-
based tasks and the methodological factors that affect production can also be seen in the
interpretation tasks. Therefore, by comparing the difficulties that the L2 groups encounter in
their ILG, the knowledge of how to use the form and the knowledge of how to interpret it
seem to develop simultaneously. The findings point therefore to a *developmental* pattern
where difficulty is concerned. In many cases, if there was a reported problem, it was
observable and difficult for the learners in both tasks. For example, in the aspectual
morphology (see Figure 5.21), the L2 groups distinguished between two continuations and
supplied the morphological form to a degree comparable to the native speakers (the
intermediate group was different and falling behind, but this is normal at this level). On the

---

[86] Because we initially though initially that the failure to find significant correlation for the past and present
perfect lay in the ceiling and floor effects. However, the statistics show that we gained a correlation in the
present habitual property.

other hand, there were some persistent difficulties in case of the temporal distinctions. The L2 groups accepted and supplied – in particular, the advanced groups – the preterite form to a comparable degree to the native speakers. However, they fell behind the native speakers when the present perfect form was examined. They could not accept nor supply the morphological form as the native speakers could. This is graphically depicted in Figure 5.21. The dots of the L2 groups seem to cluster in the middle and do not form a direction. These results indicate that the present perfect form is likely to be a delayed property if not a persistent problem in their ILG. Crucially, this behaviour is shown throughout the proficiency levels and learning settings. Hence, overall results suggest that we can infer or expect delayed or problematic semantic knowledge from observing correct/incorrect morphological production or vice versa. In other words, tapping the knowledge of interpretation can inform us about the knowledge of use.

In summary, although the numbers do not statistically and numerically *correlate*, we can see a *developmental* relationship between the knowledge of using the form and the knowledge of interpreting it by looking at the difficulties encountered in the ILG of the L2 learners. If there was a problem observed with the judgment data, it is also manifested in the production data and vice versa. This *close* relation was predicted, as it was previously mentioned that the knowledge of use involves the knowledge of interpretation, and not merely mastery of morphological markings.

5.6   Summary

In our discussion of the two tasks used in the study, I outlined important findings related to interpretation and use. The findings from the acceptability tasks were summarised first and followed by findings from the gap-filling exercises. The relation between the two tasks was discussed as well. The results suggest that L2 learners (from at least the intermediate levels)

were able to converge on the target-like interpretation and use with respect to the aspectual distinction. On the other hand, the temporal distinction displayed two interesting disparities. The preterite form was used and interpreted to a degree comparable with the native speakers where the present perfect seemed to be problematic, and persisted in being a delayed property to very advanced levels of proficiency and learning settings. A comparison of the results from the gap-filling exercises and acceptability tasks point to a developmental relationship. If there was a difficulty with the interpretation, it was revealed in the use as well. However, each of these points will be elaborated upon in the discussion in the following chapter.

Discussion

6.1 Introduction

This chapter is going to present the discussion and the conclusions that can be drawn from this study after reporting the findings and the results from the result chapters. I will synthesise the findings from the two tasks, and will review the evidence that addresses each of our questions and predictions. In addition, our focus will be directed to the role of L1 grammar in the developmental process and in learnability issues. This chapter is also going to extend our understanding of what makes it difficult to achieve native-like proficiency.

The chapter proceeds as follows: section 6.2 will consider the results in relation to the question of whether target-like representations for aspectual/temporal distinctions are obtainable. Particularly, what types of meanings L2 learners attribute to certain morphological forms is taken as an indication of the underlying representation. Section 6.3 presents the role of lexical aspect in the development of L2 aspectual/temporal distinction. I argue that it plays ineffective role and that the distinction is syntactically represented when established, and not on the basis of lexical properties of the VP. Section 6.4 considers the implications of the results with regard to the phenomena of L2 optionality and divergence from native-like representation. I propose that L2 optionality at the advanced level is temporary and that target-like grammar is eventually attainable, whereas the divergence from native-like grammar in the case of the present perfect is problematic, posing prolonged difficulty.[87] I argue that the interaction between L1 feature organization, the ambiguity of L2 input, and the contextual information required to reassemble the perfect meaning, makes the

---

[87] It is very important to note that only a few learners show optionality at the advanced level (the majority do not). Thus, it was considered as temporary and different from divergence where it is largely manifested by all groups.

learning task harder to achieve. Section 6.5 considers the relationship between knowledge of the related aspectual/temporal semantics and the knowledge of morphological forms. Finally, section 6.6 evaluates how our findings contribute to the empirical question of the effect of learning context and explicit instruction on the development of aspectual/temporal distinctions.

6.2 Can Saudi Arabic Speakers Establish the Native-like Representation of Aspectual and Temporal Distinction in the L2?

The general goal of this study was to investigate the possibility of L2 learners establishing the underlying representation of L2 semantic distinctions. In order to test this knowledge, semantic comprehension (AJT tasks) and written suppliance production (gap-filling tasks) were examined in order to provide converging evidence. Having observed in the L2 literature that overt performance is a poor indication of the underlying representation (Lardiere 1998b,2000; Prévost & White 2000; Ionin & Wexler 2002; Haznedar 2001), it was, therefore, necessarily critical to investigate L2 knowledge from different angles, and not be misled by only L2 production in this respect.

Saudi Arabic learners of English have to move from one way of representing the target distinction into different representations. In other words, they have to go beyond L1 grammar and alter their representation of the distinction to construct target-like representations. Crucially, this restructuring should be manifested in various ways ranging from morphology to semantics (Slabakova 2003; Gabriele & Martohardjono 2005). Following Hawkins et al. (2008), semantic interpretations can be taken as a window for looking at the underlying interaction between interpretable and uninterpretable features. Hence, the study was designed to focus on differences in the meanings of sentences determined by morphosyntactic

properties (Hawkins 2009; Montrul & Slabakova 2002; for a comprehensive review see Slabakova 2008). Therefore, the L2 learners have to differentiate between the semantics of the tested sentences and establish their related morphosyntactic properties.

Having summarised the cross-linguistic facts in section 4.2, I argued that the features in question are present in both L1 and L2 grammar and that the learning task for the L2 learners is to construct the semantic interpretation with its related morphosyntax. Ultimately, if L2 learners possess the target meanings, they should demonstrate how to utilise them in production and comprehension (Slabakova 2010). In this framework, I argued that learners need to acquire the appropriate meanings for L2 forms and then map those meanings onto the appropriate L2 morphological forms. In specific terms, the learners need to rule out one of the interpretations denoted by the imperfective and perfective forms in Saudi Arabic. They also need to learn to repress one of the existing L1 semantic representations and construct a target-like one, especially in the case of progressive and present perfect constructions. In addition, they need to learn that progressive interpretation can apply to all lexical types in English.[88]

In the next subsections, we will review the findings obtained in Chapter 5 and evaluate the evidence with respect to the L2 predictions. First, we will review the habitual/progressive distinction and then review the preterite/present perfect distinction.

6.2.1   Habitual/progressive distinction

The results from both tasks seem to suggest that the L2 learners performed better in the habitual/progressive distinction from the intermediate stages of development than the temporal distinction. They showed target-like sensitivity to the tested continuations and

---

[88] Because there is a process of grammaticalisation in the case of progressive aspect and it is restricted to durative types in L1 grammar.

performed to a degree comparable to native speakers. By implication, this performance can be taken as an indication of constructing the target-like representation (Hawkins et al. 2008; Gabriele 2005; Montrul & Slabakova 2002; White 2009a).

Figure 6.01 shows the mean ratings for the distinction between felicitous (*he watches old films on DVDs)* and infelicitous continuations (*#he is watching old films on DVDs*) when the context favours the habitual interpretation:
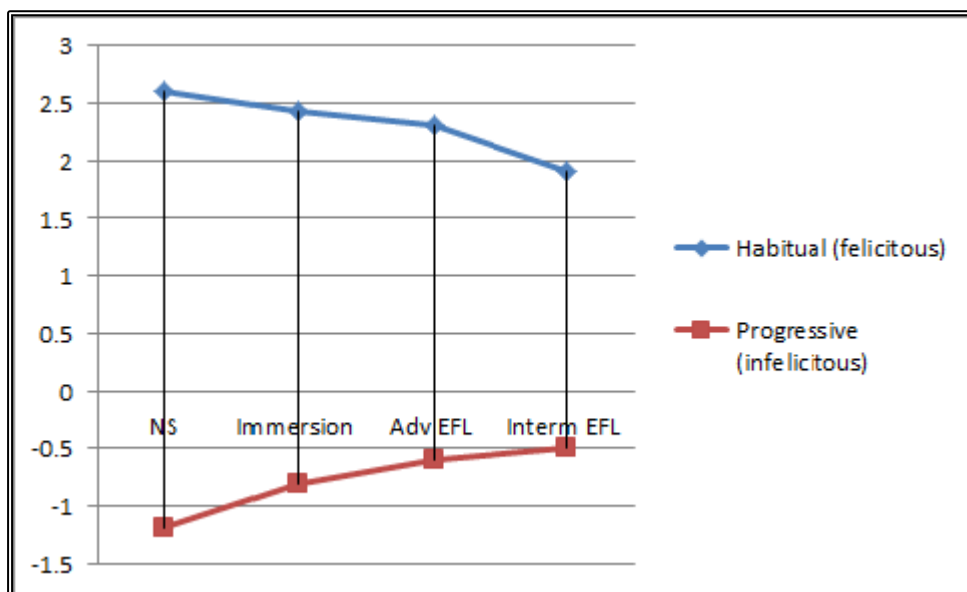
Figure 6.01: Mean ratings to felicitous (*v-s*) and infelicitous continuations (*#be+v-ing*) in habitual contexts.

Before discussing the interpretations of the graph, two technical points have to be addressed. First, Figure 6.01 shows that participants do not give negative ratings to infelicitous continuations as strongly as they give positive ratings to felicitous continuations. There is a well-known tendency in psychological research whereby participants tend to agree (accept) rather than disagree (reject) with statements (Langdridge & Hagger-Johnson 2013:96). This phenomenon is known as *response acquiescence*. This behaviour demonstrates that participants tend to be more biased towards accepting statements than rejecting them. Thus,

there are lower rates of rejection compared to the rates of acceptance. Second, White (2005:26) pointed out that it is not necessarily critical for L2 speakers to perform at the same degree as the native speakers. Rather, the critical point is that their ILG should demonstrate evidence of certain distinctions. In other words, if they treat certain sentence types significantly different from other types, this can indicate that their ILG represents the distinction in question (White 2003; Hawkins et al. 2008; Slabakova 2008). However, Hawkins et al. (2008) pointed out that they should make the distinction for target-like reasons and not for other different reasons. This is crucially important when discussing the results from the preterite/present perfect distinction.

 It is clear from Figure 6.01 that the distinction emerges across proficiency levels and learning settings. From the intermediate stages of development, the participants are already making the distinction between habitual continuation (represented by the blue line) and its contrasting continuation (progressive on the red line). The results analysed in chapter 5 reveal that the advanced groups (for immersion and advanced EFL) performed at the same level as native speakers. The results suggest that when the context favours the habitual interpretation, L2 interpretations of the semantic aspectual distinction are likely to proceed with ease. L2 learners distinguish whether the sentences that are all grammatical differ in the way they are interpreted (Hawkins 2009). However, the individual analysis revealed that there were some L2 participants across all groups who allowed the *be+v-ing* form to have a habitual meaning in English. There were 10 participants in the intermediate EFL group and 5 participants in both advanced EFL and immersion groups. This finding is similar to what is reported in Hawkins et al. (2008), that advanced speakers from verb-raising languages overgeneralise the use of *be+v-ing* forms with habitual meanings. Hawkins et al. (2008) pointed out that the finding was "surprising" and speculated that verb-raising language treated *be* as a light

raising verb with the same semantic consequences as thematic verb raising (2008:348).[89]

Nevertheless, the general tendency was revealed in Chapter 5 to be the rejection of the contrasting continuation (*be+v-ing*) despite those participants' performance. In addition, these advanced participants were not uniform in their acceptance of *#be+v-ing* but fluctuated between acceptance and rejection. However, even though the numbers were not numerically high, the majority of advanced learners did categorically distinguish between both *v-s* and *#be+v-ing* in habitual contexts. In fact, the advanced groups were target-like in rejecting the progressive form, and were not to be associated with habitual interpretations. In other words, the tendency not to allow the progressive form increases with the proficiency levels. Contra Hawkins et al. (2008), overall group results suggest that the advanced L2 learners (both advanced EFL and immersion) do not overgeneralise *#be+v-ing* forms with habitual readings but attempt to restrict their use to progressive contexts. However, this is just one side of the coin and the results from this part alone cannot fully answer the question.[90] Hence, the next side is the distinction between progressive and habitual interpretations.

6.2.2 Progressive/habitual distinction

Figure 6.02 summarises the mean ratings for the aspectual distinction when the context privileges the progressive interpretation:

---

[89] "Surprising" is because Hawkins et al. predicted overgeneralisation to occur in the opposite direction.
[90] It refers back to the heading question in section 6.2.
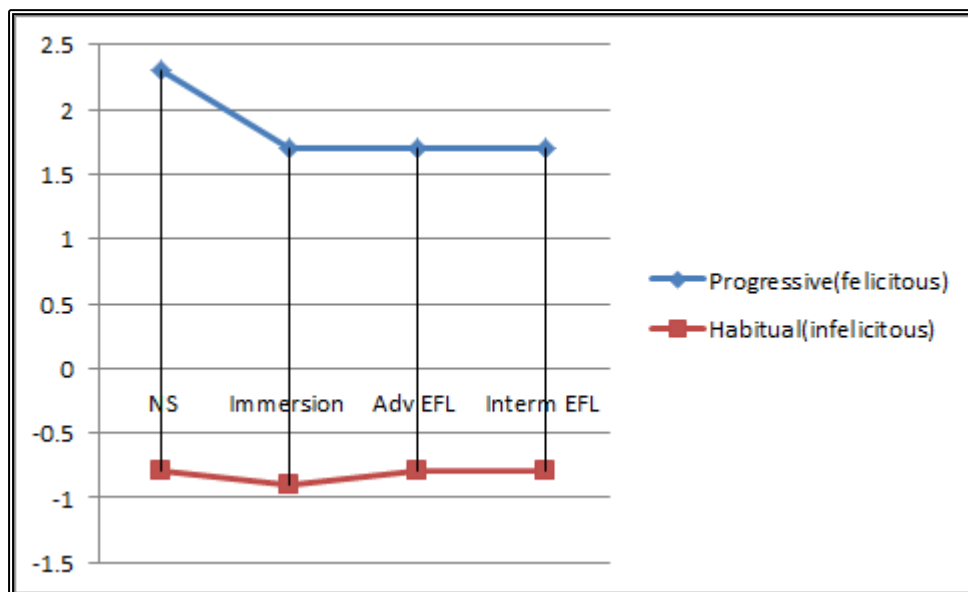
Figure 6.02: Mean ratings to felicitous (*be+v-ing*) and infelicitous continuations (*v-s*) in progressive contexts

In English, the progressive construction *be+v-ing* is an exponent of the [prog] feature that derives the progressive interpretation. Therefore, L2 learners need to recognise that progressive interpretation is available with the *be+v-ing* construction in English (Adger 2003). The results reviewed in chapter 5 indicate that the L2 learners (immersion and advanced EFL) performed statistically similar to native speakers in assigning the progressive construction to the appropriate context but not the intermediate EFL group although the mean ratings for the intermediate group look very similar to those of the advanced learners. Their grammatical knowledge demonstrates that they can map the progressive interpretation onto its underlying interpretable [prog] feature. However, it is crucial for the L2 leaners to restructure their grammatical knowledge away from L1 semantics, and not to allow present tense morphology to occur in progressive contexts. The red line shows the rejection of the present tense continuation when the context privileges the progressive interpretation. Again, the rates are not numerically high. Nevertheless, the individual inspection revealed there were differences between and within groups.

The intermediate group demonstrated fluctuation and allowed the present tense morphology to have progressive interpretation. There appear to be L1 effects (Schwartz & Sprouse 1996, 1994). However, looking at Figure 6.01 , the intermediate participants were relatively better at not allowing *be+v-ing* to have both habitual and progressive interpretations. In addition, although the descriptive numbers are not numerically high, there is evidence that they converge on the target-like representations especially in the case of acceptance (see Figure 6.02). They are statistically not different from the advanced groups (advanced EFL and immersion) in accepting the *be+v-ing* form to be associated with progressive interpretations. In other words, taking all the results altogether, they showed near target-like behaviour to restrict *be+v-ing* form as the exponent of the [prog] category and describe only progressive interpretations. They also showed the restructuring process by allowing and disallowing L1 semantic interpretations in the case of rejection. There were some participants who allowed *v-s* forms to have progressive interpretations. In other words, they failed to recognise that thematic verbs in English do not have the strong [*u*Infl:*] feature. Recall that Hawkins & Hattori (2006) assumed that an uninterpretable feature is the locus of persistent L2 difficulty. However, this behaviour decreases with increasing proficiency as in the advanced groups. Moreover, there were some participants who demonstrated native-like sensitivity in this domain and rejected the *v-s* form with progressive interpretations. Generally, the results for the intermediate group suggest that the emergence of the aspectual contrast starts from the intermediate developmental stage. However, this was not strongly established in their ILGs where there was a mapping difficulty (Lardiere 1998b,2000; Haznedar & Schwartz 1997; White 2003b). The intermediate learners demonstrated L2 optionality in mapping L2 morphological forms to their related semantic-interpretive interface. However, the results from the advanced groups show that more L2 input would allow them to move beyond L1

semantics (this stage) and make the appropriate distinctions with respect to *v-s* and *be+v-ing* morphological forms (Schwartz & Sprouse 1996).

On the other hand, the advanced EFL and immersion groups largely matched the native speakers in their judgments. The statistical findings reviewed in Chapter 5 revealed that they were not statistically different from the native speakers in their performance. Figure 6.02 presents the gap between the blue (accept *be+v-ing*) and the red (reject *v-s*) lines for all the groups. The distance in the case of advanced and immersion groups is almost at the same level as the native speakers. The general results indicate that these two groups made the appropriate distinction with respect to *v-s* and *be+v-ing* morphological forms. In other words, they mapped the L2 forms onto their related target-like semantic interpretations. However, there were a few speakers in both groups who were optionally alternating between the L1 and L2 semantic interpretive interface. These participants exhibited L2 optionality at the advanced level (Lardiere 1998b, 2000; Sorace 2000, 2003; Montrul & Slabakova 2002). If we recall, these learners largely accepted the appropriate interpretation of the context, but they alternated between acceptance and rejection with respect to the contrasting continuation. They did not accept the contrasting continuation nor reject it all the time. Therefore, this behaviour resulted in lower positive scores with regard to the contrasting continuation. Further, these participants need to recognise that these sentences are all grammatical but they differ in the way they are interpreted (Hawkins 2009). Hence, their optionality pertains to semantic interpretive knowledge. In other words, their ILG seems to allow two possible interpretations for *v-s* morphological marking. This is different from what is reported in L2 research where the focus is on morphosyntactic optionality (Lardiere 1998b,2006; Sorace 2000; Hawkins 2009). The reason why these participants exhibited this kind of optional performance will be discussed later in section 6.4.

Generally speaking, the group results suggest that the L2 learners were able to distinguish the aspectual contrast between *v-s* and *be+v-ing* morphological forms. This process is incremental and intermediate proficiency learners are already making the distinction. However, the individual analysis revealed that there were a few participants who were lagging behind and still not accurate about their judgments. They largely accepted the appropriate interpretations, but when competition with other contrasting continuation took place, they fluctuated between two possible interpretations. This shows the significance of the used methodology in separating the tested continuations in the design because it can reveal where the difficulty or optionality might exist. Presenting the two possible continuations together (under the opening context) might give an indication to the participants that one is appropriate whereas the other one is inappropriate and obscure some deficiencies. However, separating the continuations can possibly reveal how they would treat each one individually.

Once the L2 learners can establish the representation of the aspectual distinction, they should recognise that *be* is an exponent of [prog] regardless of tense. This is a critical point. The L2 learners need to recognise that *be+v-ing* is morphological marking of the independent syntactic category [prog] and should not treat it as encoding a completed event but as a progressive interpretation. Wagner (2001) found that English children had a difficulty with the past progressive and interpreted as a completed event. Similarly, in L2 research, L2 learners were reported as having a learning difficulty with the progressive in the past (Bardovi-Harlig 2002; Gabriele 2005). Figure 6.03 shows the mean ratings for the past progressive continuation and the perfective (past) continuation by all groups:

.
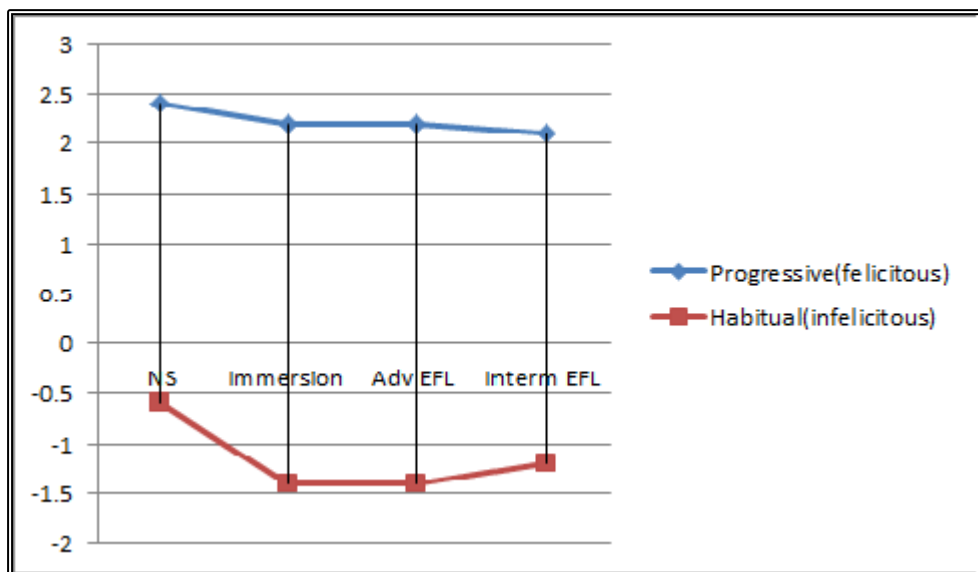
Figure 6.03: Mean ratings for past progressive and perfective (past) continuations in past progressive contexts

The results indicate that the L2 learners were able to distinguish between the progressive interpretation appropriate for the context and the perfective interpretation from the intermediate stages of development. They largely accepted the appropriate interpretation to a native-like degree. Similarly, they largely rejected the completed reading and were numerically better than the native speakers in this respect. The reason for this difference will be discussed later in subsection 6.3.1. These findings contradict what has previously been reported in L2 literature, whereby the past progressive seems harder to acquire (Bardovi-Harlig 2002; Gabriele et al. 2003; Gabriele 2005; Christensen 2009). The L2 learners distinguished between the two continuations; the distance between the two lines (see Figure 6.03) is big and almost the same for the L2 groups. The question arising is why there is this difference between the past and present tense for the L2 groups? The obvious answer is that they were aided by L1 grammar. Recall that Saudi Arabic (see section 2.5.4 in Chapter 2) marks the past progressive with */ka'an/ + imperfective*. The L2 learners seemed to map the L1 form onto L2 and treat /ka'an/ as auxiliary *be* forms in English:

1. Mona kaan-at   te-sawwi   kaikak

   Mona.nom be.past imp.3sf-make a -cake-acc

   'Mona was making a cake.'

The example shows how the event in the past progressive is ongoing in Saudi Arabic whether the event was completed or not, as in English past progressive construction. Similarly, the past progressive in Saudi Arabic does not entail completion (Benmamoun 2000; Bahloul 2008).

This transfer could explain why the L2 learners were largely accurate in their judgements in the early stages. Crucially, this interpretation may suggest that when L1 grammar is transparent and similar to L2, acquisition proceeds with ease. In this process, restructuring is failure-driven. In particular, when L1 representation is different from L2 input, restructuring takes place (Schwartz & Sprouse 1996,1994). However, as previously mentioned, this finding contradicts what is reported in L2 studies (Christensen 2009). Christensen (2009) adopted the same experimental tasks used by Gabriele and Kazanina and Phillip's study (2007). The study investigated the entailment of the past and past progressive in three contexts (complete, incomplete, and ongoing) and two verbal predicates (accomplishment and achievement verbs) to judge on a scale of 1-5 whether or not the sentence was compatible with the story (5 being highly compatible). In the complete context, both interpretations can be accepted and compatible with the story context whereas the ongoing context is much like the incomplete context, the perfective past should be rejected. The following is an example:

2. Story context (ongoing)

Yesterday at 4:00 Mary decides she wants to make a cake for her friend's birthday. She puts all of the ingredients on the counter and got to work. At 4:30 she begins to mix the butter. It is hard work.[91]

Mary made the cake

Mary was making the cake

Christensen tested two groups of learners (Saudi Arabic and Japanese). Hence; I will focus on the Saudi learners since the Japanese grammar is different from Saudi Arabic and English in this respect. The study reported an unexpected finding: that past progressive with achievement predicates posed a difficulty for the Saudi speakers similar to the Japanese speakers. It was hypothesised that Saudi speakers would outperform Japanese speakers because they would be aided by L1 grammar, given the linguistic differences between Arabic and Japanese. The results are summarised in Table 6.1:

	Past (Perfective)			Past Progressive (Imperfective)		
	Complete	Incomplete	Ongoing	Complete	Incomplete	Ongoing
NS	4.9	1.5	2.3	4	4.7	4.6
SA (Saudi)	4.7	1.8	3	4.1	3.7	4.2
JA (Japanese)	4.6	1.7	2.9	3	3.7	4.3

Table 6.1: Summary of the past/past progressive achievements for Saudi Arabic, Japanese, and English participants in Christensen (2009)

However, there are some critical points that probably contributed to this finding. First, the Saudi speakers were not at the advanced levels and they scored lower in their average proficiency average (31/45) than the Japanese speakers (35/45), although this difference is not statistically different. Second, they did not perform hugely worse, rather, they scored similarly to the Japanese speakers (3.7/5) although they were lower than the native speakers' score (4.7/5) in incomplete contexts.[92] However, the critical issue is whether they

---

[91] The example is taken as reported in Christensen (2009), although it seems there is a clash of tense between *yesterday* and the following verbs (*decides, puts*).

[92] Christensen (2009) did not provide the statistics.

distinguished between the perfective and imperfective and their entailments as White (2005) pointed out. The Saudi speakers performed as native speakers on the perfective sentences, but they were lower on the imperfective sentences. They did not perform badly on the imperfective but lower than the native speakers. Moreover, the Saudi participants outperformed the Japanese participants in the complete contexts and were similar to the native speakers. The critical point is that in the complete contexts both options are grammatical while in ongoing and incomplete contexts one is grammatical and felicitous whereas the second is ungrammatical and infelicitous. Although Christensen did not provide the statistical analyses for this distinction, looking at the numbers provided in the study and summarised in Table 6.1, the assumption that they distinguished between both forms holds true. The Saudi learners distinguished between contexts and accepted both options in the complete contexts and numerically differentiated between incomplete and ongoing options. Accordingly, the finding from Christensen's study seems to be a result of the developmental level, which can be overcome with increasing levels of proficiency. However, similar findings to Christensen's study in particular with regard to achievement verbs were found in the production data of the present study which will be discussed in section 6.5.1.[93]

When integrating the findings from the present study with the previous L2 studies discussed in the literature review, the findings contradict those of Gabriele et al. (2003) and partially those Hawkins et al. (2008) while agreeing with the findings of Montrul & Slabakova (2002) and Al-thubaiti (2010). Hawkins et al. (2008) found that speakers of verb-raising languages (including Arabic) largely accepted the appropriate progressive form but also allowed *be+v-ing* forms to have habitual interpretations. However, this is different from what is reported in the present study. The advanced participants (from advanced EFL and immersion groups) in this present study largely associated the *be+v-ing* forms with the progressive contexts and

---

[93] It was later discussed to be a result of the experimental design of the present study.

largely disallowed them from associating with habitual interpretations.[94] This is taken as an indication of their underlying L2 syntax. Following Déchaine & Manfredi (2000) and Hawkins et al. (2008) as discussed in chapter 2, it is assumed that v-T movement has semantic effects. Therefore, the advanced participants (from advanced EFL and immersion groups) in this study were able to recognise that the weak uninterpretable feature on thematic verbs and the strong uninterpretable feature on *be* auxiliary in English. In other words, they successfully reset the feature strength of the uninterpretable feature on the thematic verbs from Arabic to English. This task is related to the syntax as discussed in Table 2.3 Chapter 2. The advanced participants did not overgeneralise the *be+v-ing* forms to habitual interpretations or restrict thematic verbs to habitual readings. Contra Hawkins & Hattori (2006), the advanced participants demonstrated that uninterpretable features are acquirable and obtainable after adulthood.

On the other hand, what about the findings for the Japanese and Chinese participants in Hawkins et al. (2008) and Gabriele (2005)? Both assumed that L1 has a deterministic role in their development. Recall that in Chinese and Japanese languages, T category is not instantiated (see section 3.6.2 in Chapter 3). Hawkins et al. (2008) assumed that Japanese and Chinese learners treated progressive *be* as an adverbial modifier and it was not established as an independent category of the predicate type. However, contra to Hawkins et al. (2008) and Gabriele (2005), Yamazaki-Hasegawa (2009) provided experimental evidence whereby Japanese learners can establish target-like representation of the progressive *be* as independent category, regardless of predicate type. Tested by acceptability judgment task, the advanced Japanese speakers in Yamazaki-Hasegawa's study were able to pick up on the aspectual distinction between *be+v-ing* and *v-s* morphological forms in English. They demonstrated that they could establish the uninterpretable features on *v* and *Prog* (accuracy mean score

---

[94] The participants from Hawkins et al. were advanced learners when measured by the Oxford Placement Test.

4.7/5) although these were not activated in their L1 grammar (see section 3.7.4 in chapter 3 for more details). Hence, contra Hawkins & Hattori 2006; Hawkins et al. 2008; Tsimpli & Dimitrakopoulou 2007, the "Interpretability Hypothesis" was not supported by Yamazaki-Hasegawa's findings. In other words, L2 learners can establish and map L2 forms to their related L2 semantics in a target-like manner.

To conclude, the results from the present study seem to suggest that the L2 Saudi speakers recognise that *be* is an exponent of [prog] regardless of tense. However, the L2 learners performed better on the past progressive than present progressive because of L1 grammar representation. Nevertheless, the overall results indicate that the L2 learners established the distinction and recognized the semantic interpretations of this distinction from intermediate levels of proficiency.

6.2.3   Preterite/present perfect

The results reviewed in Chapter 5 seem to suggest that the preterite was easily acquired, unlike the present perfect construction. The present perfect caused persistent difficulty for the L2 learners even at the advanced level. Preterite and present perfect meanings are distinctly realised by two forms in English, while Arabic has just one form underlying the two meanings (Comrie 1976; Fassi-Fehri 2004; Bahloul 2008). The perfective form in Saudi Arabic can encode both interpretations, and the intended interpretation is achievable through adverbials and context. Most importantly, the fact that the event time can coincide with the moment of speaking, and that the verb is in the perfective form, indicates that the perfective form has a present tense interpretation (Bahloul 2008). Hence, it is assumed there is an interpretable [perf] feature not overtly marked in Arabic (Fassi-Fehri 2004). Therefore, Saudi Arabic learners of English should restructure their grammar in a native-like manner by mapping L2 morphemes onto their syntactic-semantic interpretive interface. In other words,

the learning task is to associate the preterite with the past interpretation [*u*past] and *have+V-en* with the [perf] interpretable feature.

Figure 6.04 demonstrates the mean ratings for the present perfect form when the context privileges the present perfect interpretation:
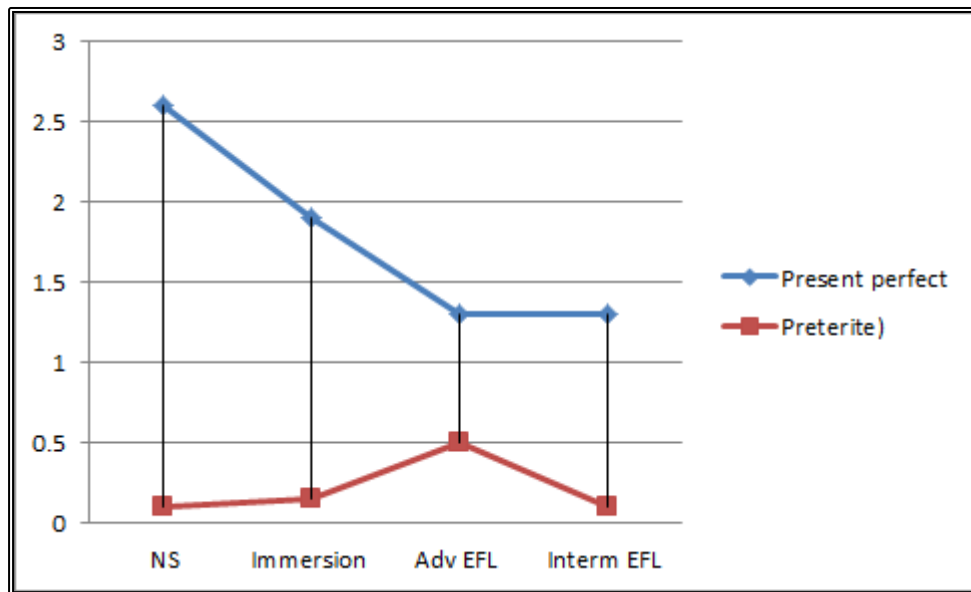
Figure 6.04: Mean ratings to present perfect and preterite continuations in present perfect contexts

The figure shows a contrasting picture between the native speakers and the L2 learners. The blue line (the acceptance of the present perfect) demonstrates a notable difference between the native speakers and the L2 learners. The results reviewed in chapter 5 indicate that the native speakers were statistically different from the L2 learners. In other words, the L2 groups did not perform to the level of the native speakers. On the other hand, the red line (rejection of the preterite) shows that all the participants performed similarly to each other and allowed the preterite form to suit the context to a lesser degree. However, there are two critical points to be addressed here. Recall that the crucial point is whether the L2 learners can make the distinction, as White (2005) suggested. The L2 learners are making the

statistical distinction in the case of the immersion and intermediate EFL groups but this is not the case in the advanced EFL group. Hence, it is surprisingly troubling as to why the advanced EFL group, which is proficiency-matched to the immersion group performed differently (c.f Hawkins et al. 2008). This means it is unclear whether or not they represented the contrast, and closer scrutiny is required. The other point is that it is semantically plausible to use the preterite in the context of the present perfect, since both forms share the [anterior] feature (Reichenbach 1947; Smith 1983; Comrie 1985; Leech 1987; Bardovi-Harlig 1997). The participants seemed to interpret the following sentence as if the first one is true, thus the second continuation is true.

3. We must get this pipe fixed, ...
   it has leaked for a while.
   it leaked for a while

In fact, Bardovi-Harlig (1997) reviewed a number of linguistic definitions of past and present perfect tenses and she highlighted how the two forms are semantically close neighbours (1997:382). Therefore, it is unclear whether the performance of the L2 learners is a result of this knowledge or whether they are guided by what is represented in their L1 grammar. The perfective form can denote both interpretations in the L1. However, what is clear from the figure is that the L2 groups (even the advanced ones) could not perform comparably with the native speakers' score. Crucially, this is the only property in the study where the L2 learners are lagging behind the natives. Obviously, this discrepancy seems not to be a result of the learning setting. The immersion group was not statistically significant from the advanced EFL group in their acceptance of the blue line (present perfect), although they were numerically higher. Thus, it seems that this divergence from the native speakers is likely to be related to the L1 representation. However, the performance on the red line (preterite)

reduced the potential to arrive at reasonable conclusions. It obscured some insights whether the learners benefitted from the knowledge as the native speakers or they were influenced by their L1 grammar. Hence, it is more important to look at the performance on the preterite form to see the larger picture. Figure 6.5 demonstrates the mean ratings for the preterite form when the context privileges the preterite interpretation:
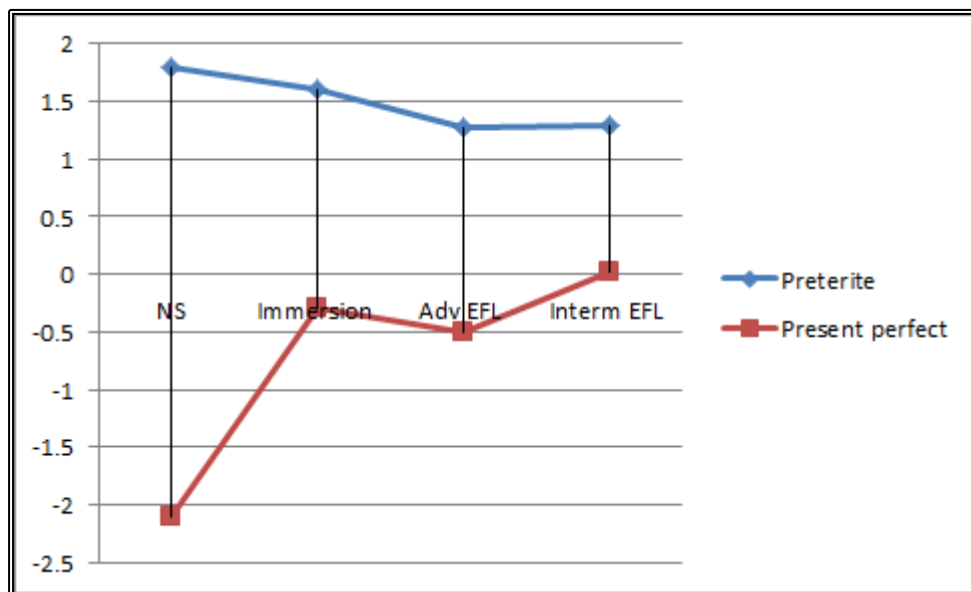
Figure 6.5: Mean ratings to preterite and present perfect continuations in past contexts

It is clear from the above figure that there is a huge difference between performances of the native speakers and the L2 learners. The gap between the blue (preterite) line and the red (present perfect) line is almost double for the native speakers compared to the advanced L2 groups. Crucially, it was assumed that the performance on the red line can inform us about the underlying knowledge of the L2 learners and what semantic interpretations they associate with the L2 forms (Montrul & Slabakova 2002,2003; Gabriele & Martohardjono 2005; Hawkins et al. 2008). The L2 learners patterned with the native speakers in accepting the preterite continuations to suit the given context. However, they were different from the native speakers in allowing or, at least, failing to conclusively reject the present perfect in the same

context. This resembles what is represented in the L1 grammar. In other words, there appears to be a persistent L1 effect in allowing both constructions to suit the context. However, the results reviewed in Chapter 5 Table 5.11 indicate that the L2 groups distinguished significantly between the preterite and the present perfect in preterite contexts, but that the L2 groups were also significantly different from the native speaker, which is clearly depicted in Figure 6.5. This is puzzling given the proficiency similarity indicated by the Cloze test, between for example the native speaker and the immersion group. Although the L2 groups statistically made the distinction, integrating both findings in Figure 6.04 and Figure 6.5 seem to indicate a failure in identifying that the *have+v-en* construction is the exponent of the [perf] independent category. The L2 groups were unable to either accept (Figure 6.04) or reject (Figure 6.5) the present perfect as the native speakers did.

In fact, the findings from Figure 6.04 and Figure 6.5 seem to indicate that L1 representation can explain the performance of the L2 learners in both figures. Recall that, the perfective form in Arabic can be used to express both meanings which are distinctly marked in English by *v-ed* and *have+v-en* forms. The learning task is, hence, to map and restructure the semantics of the present perfect to its morphological form encoding the [perf] feature. In other words, they need to dissociate the temporal perfect interpretation from the preterite in English. Bardovi-Harlig (1997:382) pointed out that learners must recognise the use and the meaning of temporal perfect semantics from its semantically close neighbour. The results seem to indicate that while they can associate the preterite interpretations to *v-ed*, they cannot restructure their grammar, and pre-empt allowing the present perfect to appear in the preterite context. However, Saudi-Arabic speakers accepted the present perfect but to a lesser degree than the native speakers, even at the advanced level (see Figure 6.04). Moreover, when the context favoured the preterite interpretation, they allowed the temporal perfect semantics,

unlike the native speakers. This seems to indicate that the acceptance of the present perfect by the L2 groups is misleading (see Figure 6.04) as it was not fully internalised in their ILG. However, this claim needs further and converging evidence, and will be discussed later when we look at the written production of the present perfect in section 6.5.2. Nevertheless, there are acceptance rates for the present perfect by the L2 groups, but these rates do not statistically reach the native-like mastery of the present perfect. The results reviewed in chapter 5 indicate that the intermediate group was different from the immersion group, although not from the advanced EFL group. This seems to emphasise that the perfect construction is more likely to a delayed property if not persistent problem. The L2 groups (especially the advanced ones) demonstrated a deviant-like performance from the native speakers. This kind of divergence from the target-like performance was shown in all proficiency levels regardless of learning setting. In short, temporal perfect semantics seems a persistent problem in their acquisitional process.

However, this result is not entirely surprising. It is in agreement with the findings from a large bulk of L2 literature research conducted under various frameworks (Bardovi-Harlig 1997,2000; Liszka 2004; Al-thubaiti 2010; Roberts & Liszka 2013). Non-generative accounts were proposed to observe the problems and difficulties encountered when acquiring this construction (the perfect one). For example, Bardovi-Harlig (1997) proposed a Reichenbachian account for L2 difficulties with the perfect construction. She (1997:376) stated that:

> Although they differ with respect to current relevance, the present perfect and the simple past are linked by another semantic feature, anteriority: Both encode events or situations prior to the time of speaking. Thus, the learner must acquire both features, anteriority and current relevance, to consistently distinguish between the meaning and use of these tense/aspect forms.

Clearly, she assumed under this approach that the simple past [+anterior] and present perfect [+anterior, +current relevance] are strongly linked. Under this approach, Bardovi-Harlig (1997) pointed out that the learning task for L2 learners is to distinguish the meaning and use of the present perfect from its semantically close neighbour. Therefore, the results of Figure 6.04 can be predicted because of the meaning association between the simple past and the present perfect, sharing the [+anterior] feature. However, the results in Figure 6.5 are problematic and unpredicted. The context favoured the preterite and allowed the present perfect with the [+current relevance] feature to occur, unlike the native speakers who strongly rejected that. In other words, the Saudi speakers apparently equated the form-meaning association of the preterite and the present perfect and resembled what is already in their L1 grammar. Bardovi-Harlig (1997) expected L2 learners to encounter the same difficulties in establishing form-meaning associations, and predicted there would be no L1 influence.[95] On the contrary, the results suggest that the L2 learners might attempt to accommodate L2 input through L1 representation (Schwartz & Sprouse 1996). A supplementary analysis (reflection) will be discussed in section 6.5.2 where the Saudi speakers overgeneralised the preterite [+anterior] and not the simple present [+current relevance] in the context of the present perfect. If the learners were attempting to determine the form-meaning association for the present perfect, both forms were predicted. However, with L1 grammar not being discussed, Bardovi-Harlig's account cannot fully explain why the target-like mastery of the present perfect was not obtained in either acceptance or rejection; even at very advanced levels of proficiency (see Figure 6.04 and Figure 6.5).

On the other hand, this study will offer another generative explanation based on the differences between Saudi Arabic and English with regard to the preterite and present perfect

---

[95] Although in her study, there were participants from different L1 backgrounds, she did not include L1 grammar as a factor to be addressed.

constructions. As previously mentioned in Chapter 2, the perfective form in Arabic can express both meaning denoted by *v-ed* and *have+v-en* forms in English. However, it was also assumed that the underlying structures in English and Saudi-Arabic accommodate both features [+/- past] and [+/- perfect] while the difference lies in the morphological realisation. Both features are distinctly marked in English; [+/-past] is marked by *v-ed* and the [+/-perfect] is marked by *have+v-en* whereas they are encoded by one form in Arabic:

4. rasem Ahmad al-law'ha ams

   draw.prf Ahmad the.picture yesterday

   'Ahmad drew the picture yesterday.'

5. Ahmad tuuh *rasem* al-law'ha

   Ahmad just *draw.prf* the.picture

   'Ahmad has just drawn the picture.'

The learning task, then, is to map L2 forms to their temporal semantics and figure out how they are represented in L2 grammar. They need to make a distinction between the preterite and the present perfect by establishing the native-like form-meaning associations. Because the [+/-past] is overtly realised in Arabic grammar, Saudi speakers could establish the association between the *v-ed* form and preterite interpretations (see Figure 6.5). However, the Saudi speakers equated the preterite and present perfect in English and continued to allow both constructions to occur interchangeably (see Figure 6.04 and Figure 6.5). Therefore, they are required to map the temporal perfect semantics onto *have+v-en* morphological form. In fact, Lardiere pointed out that "difficulty in L2 grammatical acquisition is related to the extent to which formal features that have already been "packaged" or assembled into certain morphemes in the L1 must be *isolated and redistributed* among different morphological

items in the L2" (Lardiere 2012:113, emphasis added). Given this account, the learning

problem for Saudi speakers is, thus to *isolate* the perfective semantics from the perterite form

and to *reassemble* it into the *have+v-en* morphological form in English. Bear in mind that

there were categorically different learning groups distinguished by the learning setting and

proficiency levels. Second, the problem is not the selection of the feature in question, but

rather the *reassembling* of it, since both feature [+/-past] and [+/-perfect] are already

activated in the L1 grammar. To understand the performance of the L2 groups in Figure 6.04

and Figure 6.5 , we must recall that there were a number of tasks outlined in Table 2.4 in

chapter 2. In English, the perfect feature [+/- perf] is overtly encoded in the auxiliary *have*

(Adger 2003; Radford 2009)*,* whereas it is covertly encoded extralinguistically by adverbials

and context in Arabic (Fassi-Fehri 2004). Therefore, the task is, thus to recognise the

semantics and the morphology rather than the selection of the feature [+perfect]. Hence, the

question becomes whether or not L2 input provides the possibility for this learning task.

In fact, the L2 groups were all instructed about the present perfect in English, with the

immersion group differing from the rest in terms of being immersed for a period of time in

English-speaking country. However, native-like mastery is apparently unattainable (emerging

as a persistent difficulty) as previously mentioned. Recall that restructuring is failure driven

(Schwartz & Sprouse 1996; White 2003b). Therefore, the L2 groups needed not only to

notice the morphological form but also to figure out the L2 environments for the semantic

function of the feature carrier (the auxiliary *have*). In this respect, L2 input seems to be

ambiguous and the opacity of the input might contribute, although not entirely, to the

persistent difficulty (Bardovi-Harlig 1997). The present perfect shares the [+anterior] feature

with the past tense; therefore, they might seem truth-functionally identical (Bardovi-Harlig

1997). Accordingly, the L2 learners might encounter contexts where both are true and do not

offer a clear distinction between the simple past and present perfect. For example, consider the following example used by Bardovi-Harlig (1997:379); "Max has met the president" and "Max met the president". If the first one is true; the second sentence is also true and vice versa.[96] In this example, the simple past and the present perfect are used interchangeably in a context where they seem to share the same meaning. Consequently, L2 learners might generalise this to other contexts and assume that both forms can be equated and interchangeable. Furthermore, *have* might appear as a main verb and not as an auxiliary in the perfect construction. Therefore, the ambiguity of the input might not offer a great help in the *reassembling* process. In the domain of interpretive knowledge, *reassembling* requires successful semantic analysis for a given feature to a particular context. In other words, it requires the evaluating and computing of truth conditions in order for the given feature to be true against a particular context (Gabriele 2005). Under this account, the fact that Saudi speakers accepted (lesser than native speakers) the present perfect in Figure 6.04 seems to indicate learned knowledge, while the acceptance of the present perfect in the context of the preterite in Figure 6.5 indicates a lack of recognising the temporal semantics. Therefore, the problem seems to lie in the recognition of the temporal semantics behind the feature carrier *have*. Actually, Lardiere (2012:113) stated that "the learner must *acquire knowledge of the appropriate conditioning environments* for expressing a certain feature, which may sharply differ from that of the L1" (emphasis added). Therefore, it seems that the learners are struggling to recognise what constitute an obligatory context in L1 vs. L2 (Lardiere 2012).

This account highlights the interaction of L1 grammar and L2 input in L2 development. That is to say that L2 input is not always transparent and opaque in this respect, and it does not offer the possibility of detecting the appropriate contexts. Moreover, the role of L1 grammar is deterministic in achieving native-like proficiency. The account implicitly assumes that

---

[96] See Figure 6.04 to see the groups' performance on this condition

reassembling the covert feature (encoded extralinguistically such as by context) in the L1 into overt features (encoded morphologically) in the L2 is difficult especially when the form is not salient or frequent in terms of input (see Lardiere 2012; 2008; Slabakova 2008). That is to say the appropriate truth-conditions require more observations. Indeed, Slabakova (2009:321) pointed out that this situation might be harder to acquire in L2 when reassembly requires the L1 grammatical features encoded by context to be mapped into overt marking in the L2. Furthermore, when the L2 input is not clear in this domain, it might slow down the acquisitional process.[97]

Crucially, cross-linguistic evidence is required to test the predictive power of this proposal.[98] This is to compare the performance between participants from L1s that grammaticalise the present perfect overtly, like English or Spanish, and participants from L1s that do not distinguish morphologically between both interpretations, like Arabic or French. However, Roberts & Liszka (2013) tested how German and French speakers who distinguished between the preterite and present perfect in traditional off-line judgment tasks could utilise this knowledge in online-tasks in real time. The compound past form in French can express both meanings: simple past and present perfect , with the context determining the reading(Comrie 1985). This is similar to Arabic in the underlying structure. On the other hand, The compound past in German encodes T[+past] for preterite only and perfect meaning is nevertheless achieved periphrastically with the use of non-definite time adverbials (Roberts & Liszka 2013). The findings indicate a differential behaviour between the groups based on the properties of L1. In other words, they reveal persistent L1 effects. Adopting the persistent effects of L1, the study was based on the results of Liszka (2004). However, the study investigates the problem of representation of the feature in question and does not compare L1

---

[97] This assumption is an attempt by Slabakova to spell out predictions from Lardiere's (2008) proposal.
[98] Slabakova (2009) actually provided examples supporting this proposal but none were related to the present perfect.

groups where the feature is already encoded overtly (Spanish) and covertly (French). This is an area where further research is required, and where cross-linguistic evidence would be useful in providing more insights with respect to L2 degree of difficulty and feature re-assembly.

To summarise, the results from the present study demonstrate that the target-like distinction between temporal contrasts was unattainable by Saudi Arabic learners of English. The problem continued to advanced proficiency levels and learning contexts. This shows that it is more likely a persistent difficulty for Saudi speakers. The results also reveal that the L2 learners overgeneralised the use of the present perfect in the context of the preterite and were target-deviant from the native speakers in accepting the temporal semantics. In addition, the results indicate that the interaction between L2 input and L1 grammar contributed to the observed divergence. The opacity of the L2 input and the lack of evidence was not helpful in recognising the appropriate environments for the temporal semantics and dissociating its semantics from the preterite form.

Table 6.2 summarises the target-like and target-deviant behaviour for Saudi-Arabic L2 learners for the tested properties in the acceptability judgment task:

	[*u*present]	Present [prog]	Past [prog]	[*u*past]	[perf]
Immersion	Target-like	Target-like	Target-like	Target-like	Target-deviant
Adv EFL	Target-like	Target-like	Target-like	Target-like	Target-deviant
Interm EFL	Restructuring	Restructuring	Target-like	Restructuring	Target-deviant

Table 6.2: Summary of acceptability judgment task results

6.3 What is the Effect of Lexical Aspect?

According to Bardovi-Harlig (1999), L2 learners will initially be influenced by the inherent semantic properties of verbs when establishing tense-aspect marking. This position is related

to child language acquisition (Antinucci & Miller 1976; Bronckart & Sinclair 1973) and second language acquisition (Bardovi-Harlig 1992; Bardovi-Harlig & Reynolds 1995; Salaberry 2000). As reviewed in Chapter 3, this position starts from early morpheme studies which did not investigate the development of tense-aspect morphology on its own but in general morphology (Bardovi-Harlig 1999). Therefore, I will investigate the role of lexical aspect on the development of aspectual and temporal distinctions and whether the participants restricted their morphology to certain verb classes. The last point is crucial. If the L2 learners are making the distinction, they should demonstrate the establishment of this distinction regardless of predicate type. For example, they should demonstrate that they have established [prog] as independent category in their representation, unaffected by predicate type. In addition, they should not associate tense marking with lexical aspect as outlined by the "Aspect Hypothesis" (Andersen & Shirai 1996). Hence, the learning challenge faced by the L2 learners is to establish the distinction in their grammars that is unaffected by predicate type (Salaberry 2008;[99] Slabakova & Montrul 2002). I will review first the aspectual distinction and then the temporal contrast.

6.3.1 Aspectual morphology

The learning challenge here is to dissociate the effect of the predicate type on the acquisition of the aspectual marker such as *-ing*. For English, it is assumed that the progressive *-ing* marking can occur with all predicate types (Comrie 1976; Smith 1997; Adger 2003).[100] Therefore, according to Hawkins et al. (2008), if the L2 learners have established T-v configurations, they should demonstrate no predicate type effect in their performance with the progressive interpretation. However, there are some notable restrictions with regard to semantic incompatibility. For instance, achievement verbs are sometimes not semantically

---

[99] Salaberry labelled this position as the "Syntactic Structure Hypothesis" (SSH).
[100] There are some restrictions, especially with stative and achievement verbs.

compatible with progressive interpretations and only stage-level stative verbs (such as *stay,*

live) are compatible (Smith 1997). With respect to L1 grammar, as discussed in chapter 2

section 2.4.1, the form *ga'ad* is less compatible with achievement and stative verbs but it is

more likely to co-occur with durative predicates.

The results reviewed in Chapter 5 Table 5.4 reveal that the L2 groups (the advanced ones)

were similar to the native speakers in their judgements about progressive marking *-ing*. They

were also more likely to accept when the predicate was durative or stative, and less likely to

accept when the predicate was an achievement verb. This strong tendency can be observed in

the native speakers' performance as well. In fact, this discrepancy or difference can be

attributed to the inherent properties of the achievement predicates. Li & Shirai (2000) pointed

out that achievement verbs are inherently incompatible with progressive marking, when

compared to activity predicates. Nevertheless, since this tendency is observable in the native

speakers' performance, we can assume that the L2 groups established the progressive as

independent category, regardless of predicate type. For instance, the L2 groups appear to

recognise that stative verbs can also be marked and associated with progressive

interpretations in their ILGs. However, it is also critical to look at their judgements when the

context disfavours progressive marking as well. The results in Table 5.2 reveal no statistical

differences between the L2 groups and the performance of the native speakers except in the

case of the immersion group regarding stative verbs. The immersion group was less likely to

reject the #progressive with a stative predicate. This performance is unexpected when

compared to other groups and other predicates.

However, contra the "Aspect Hypothesis" (Andersen & Shirai 1996), the L2 groups did not

mark the progressive *-ing* on the basis of the inherent properties of the lexical verb type, but it

is established syntactically an independent category, regardless of the verb type (Hawkins et

al. 2008; Yamazaki-Hasegawa 2009). Although the advanced groups (immersion and advanced EFL groups) demonstrated differential behaviour on the achievement verbs, similar to native speakers, the intermediate EFL group, in fact, statistically treated all the three verbal predicates equally, when accepting the progressive marking *–ing* (see Table 5.4). In other words, they did not restrict the progressive *–ing* to a certain verb class from an early stage of development.

With regard to the present tense morphology, the results in Table 5.3 indicate that the L2 groups were largely similar to the native speakers in their judgements. They did not associate *-s* present tense marking to a certain verb class, but treated them almost equally. The intermediate group demonstrated a preference to accept when the predicate was stative and achievement more than durative predicates. However, as the numbers show, this difference can be seen as a minor difference as well as developmental one. Hence, it is not seen as a serious problem or difficulty in their ILGs. Therefore, the L2 groups do not mark T category based on the lexical inherent properties of the verb predicate (Déchaine & Manfredi 2000; Hawkins et al. 2008) but a temporal interpretation through the *Agree* operation (Adger 2003; Radford 2009). Similarly, we need to examine the performance when the context disfavours the present tense morphology. The results in Table 5.3 reveal that there was an effect of predicate type in both the L2 groups and the native speakers. The stative verbs were less likely to be rejected compared to other predicates. However, this behaviour can be observed in the native speakers' performance as well, and it resulted in lower rates for all the groups. A closer examination of the test items revealed that test items with stative verbs in progressive contexts were accepted as well as in the present tense morphology. A test item such as the following was largely accepted by both native speakers and the L2 groups:

6. #Maria wants to improve her English right now, so to do this....................
   she stays with an English host family at the moment.

Interestingly, the L2 groups patterned with the native speakers in their judgments despite the presence of the progressive adverbial *right now*. Nevertheless, they accepted the progressive marking as well. This indicates that both the native speakers and the L2 groups allowed both interpretations to exist in their grammars. This shows variability in native speakers' judgments. It could also possibly be that the native speakers interpreted this context because they were coerced from the progressive to the habitual. In this case, both continuations are possible (Gabriele & Canales 2011).[101] However, if this is the case, the L2 learners demonstrate the knowledge that these constraints are acquirable once the mapping between form-meaning has been established (which I assume it is here), contra Sorace (2011). However, this is not within the scope of the present study.

However, this performance is different from what was observed in the past progressive. Recall that the native speakers and the L2 groups categorically distinguished between the progressive and the perfective readings on the durative and achievement verbs but the locus of difference was on stative verbs. The native speakers accepted stative verbs in the perfective form whereas the L2 groups largely rejected the perfective form. The results in Table 5.5 in Chapter 5 reveal that the L2 groups were different from the native speakers only on stative verbs, which resulted in a lower rate for the native speakers as graphically depicted in Figure 6.03. The following examples were accepted by the native speakers:

7. #During the London riots, ...
   I lived in Tottenham.

---

[101] Gabriele & Canales (2011) addressed this issue with L2 learners of English (Japanese and Spanish). The focus was on activity and achievement predicates, in particular where the progressive is coerced from an episodic sentence to a habitual (progressive habitual).

8. #When I met Wayne Rooney , ……
    he stayed in Manchester Marriot hotel.

9. #When I saw him yesterday ,…….
    he stood at the stop waiting for the bus to come

The individual analysis revealed that the tendency for native speakers is to accept the perfective continuation while the tendency for the L2 groups is to reject it. One explanation for this behavioural difference in the native speakers' performance is that they interpreted the context as being *finished.* The entailment of the progressive in stative verbs encodes, *temporariness,* unlike the durative and achievement verbs where they interpreted the contexts as *unfinished* and the entailment of the completion (perfective) was unacceptable (Dowty 1975, 1979, 1986; Smith 1997, 1999). The L2 groups, on the other hand, rejected the perfective form on the stative verbs unlike the native speakers. It seems that they were influenced by the L1 grammar and overgeneralised the utilisation of the imperfective to all lexical predicates. In other words, they were guided by their L1 grammar (see Figure 6.03). Interestingly, this behaviour persisted to the advanced levels regardless of learning contexts.

Therefore, two contradicting pictures emerge from the performance on the stative verbs in the present and the past progressive. On the one hand, they demonstrate the knowledge to acquire contextual constraints and pattern with the native speakers' judgments. On the other hand, they overgeneralised the imperfective and restrict its occurrence to the past progressive, unlike the native speakers. Thus, it seems that L1 grammar plays a role at this micro level. The rejection of the perfective form with stative verbs can be seen as a result of overgeneralisation as seen in section 6.2.2. They overgeneralised the restriction of the progressive and rejected the semantic entailment unlike the native speakers.

To recap, the results show that the L2 learners did not interpret aspectual markings on the basis of inherent properties of the verb predicate, but on the basis of *Agree* and *Move* operations in their ILG. In other words, contra to the Aspect Hypothesis (Andersen & Shirai 1996), they already did not restrict aspectual morphology to certain predicate types. However, there were some observations at the micro-level, although the results generally show that syntactic categories [prog] and [T] were established and represented, irrespective of the lexical predicate.

6.3.2 Temporal morphology

In this section, the influence of lexical aspect on the judgments about preterite and present perfect morphology will be investigated. Lexical aspect may have influenced the judgments made by the L2 learners. If we recall, certain verb predicates are inherently punctual and more compatible with preterite morphology such as achievement verbs (Li & Shirai 2000; Comrie 1985). The investigation might be helpful in revealing any effect of the lexical aspect on the deviant-like performance by the L2 groups. The results reviewed in chapter 5 in Table 5.7 reveal that there was no clear effect for the lexical aspect in the present perfect contexts. The L2 groups and the native speakers were more likely to reject the preterite form when the predicate was durative. Contrary to what was hypothesized, either the L2 groups or the native speakers associated the preterite form with achievement verbs. Similarly, in the acceptance, there was no effect for the lexical aspect. All the participants treated all the lexical aspectual types similarly.

In the preterite context, the results in Table 5.7 indicate that the native speakers and the L2 groups were more willing to accept the preterite form when the predicate was durative than achievement or stative verbs. Again, this is contrary to what was hypothesised. Similarly, in rejecting the present perfect form, the lexical aspect had no apparent effect. Therefore, the

judgments about the temporal morphology were not influenced by the inherent lexical properties of the verbal predicate. In other words, we can conclude that target-deviant performance by the L2 learners was not a result of the influence of lexical aspect. They treated all the lexical predicates similarly in acceptance and rejection. For instance, they did not show a tendency to associate preterite form with achievement verbs.

The general conclusion is that the L2 learners already demonstrated that they did not associate or restrict the aspectual or temporal morphology to certain lexical aspectual types from the intermediate stages of development. Contra to the predictions of the "Aspect Hypothesis", the L2 learners did not make form-meaning associations based on the properties of the lexical aspect. However, it is highly important to stress that this evidence is derived from judgment data whereas the Aspect Hypothesis restricts its predictions to L2 superficial production (Slabakova 2002; Bardovi-Harlig 2000; Salaberry 2008). Hence, the methodology that examines what kind of interpretations triggered by morphosyntactic markings provides evidence against the predictions of the "Aspect Hypothesis" and goes beyond superficial performance. However, because there are tasks targeting the L2 production of the aspectual/temporal morphology in the present study, the same predictions and integrations of the judgmental data will be revisited in section 6.5.

After establishing that lexical aspect has no influence on the underlying L2 syntax, the next step is to consider the grammar of those advanced L2 learners who exhibited optionality and divergence from the target-like grammar.

6.4 How Do we Explain Learners' Optionality? What are the Possible Barriers to Successful L2 Acquisition?

It is clear from the previous discussion that we have seen two different outcomes with regard to aspectual/temporal interpretations. The L2 learners generally demonstrated their

knowledge of establishing the aspectual distinction while they demonstrated a failure to identify the temporal semantics as well as an inability to distinguish the temporal contrast between preterite/present perfect. This disparity is most clearly manifested in the performance of the advanced L2 learners while the performance in the intermediate group can be seen as a result of ongoing restructuring. Thus, the grammar of the advanced learners needs to (and will be) be carefully examined.

6.4.1 L2 optionality

The results with respect to aspectual morphology demonstrate that the advanced L2 learners (immersion + advanced EFL groups) were generally able to converge on the target-like representations. Nevertheless, a few participants demonstrated that they might still hold L1 representations as well. In others words, these participants exhibited L2 optionality at the advanced level. This optionality was observed in the intermediate, but it was hypothesised to be developmental and could be overcome with more L2 input. In fact, the number decreased, and the majority of the advanced participants switched to target-like interpretations. Hence, the nature of this optionality at the advanced levels with respect to aspectual distinction will be discussed.

L2 optionality has gained a large amount of attention in recent L2 research even though L2 learners go through stages characterised by optionality and restructuring before this phenomenon has been directly addressed (White 1990,1991,2003b; Vainikka & Young-Scholten 1996; Schwartz & Sprouse 1996; Haznedar & Schwartz 1997; Lardiere 1998b,2000; Sorace 2000, 2003; Ionin & Wexler 2002; Prévost & White 2000; Papp 2000; Robertson 2000). This interest has dominated the recent investigations into L2 research and what interpretations are to be given to L2 speakers' performance and the nature of their underlying

knowledge (Sorace 2005).[102] Sorace (2003:140) characterised optionality at advanced competence levels:

> The persistence of optionality at advanced stages of development, including L2 end state, is a consequence of the fact that L2 learners may not be exposed to data that are *robust* and/or frequent enough to expunge one of the optional variants from the grammar. In the typical L2 end state characterized by optionality, optional variants are not in free variation: a steady state is reached in which the target option is *strongly* but not *categorically preferred* and the non-target option *surfaces* in some circumstances. L2 grammars exhibit a greater tolerance for optionality than native grammars. (Emphasis added)

As can be seen from Sorace's description, L2 optionality tends to occur in cases where L2 input is underspecified and not "robust". In addition, she pointed out (2003) that L2 learners have L1 grammar as an additional source of optionality. However, English provides positive evidence for aspectual interpretations. The morphological form *v-s* on thematic verbs agrees with T signalling [present] tense and habitual interpretations. Similarly, the morphological form *be+v-ing* is a restrictive reflex for progressive interpretations in English and the raising of *be* over adverb and negation in English should also provide positive evidence that *be* raises (Hawkins et al. 2008). Therefore, English provides robust and positive evidence for aspectual morphology. Therefore, the first assumption is not met.

However, Sorace's description is applicable to the performance of these advanced participants regarding the habitual/progressive distinction in the present study. They strongly accepted the target-like interpretation but also allowed the other reading to be accepted. However, they were not uniform in their acceptance but they fluctuated between accept and reject. In other words, they allowed the other reading to "surface" in some circumstances. That is to say the two interpretations don't have equal status. Recall (see sections 5.3.1.2 and

---

[102] A special issue of Second Language Research (2000) was devoted to this topic in particular syntactic optionality.

5.3.1.3) that there were two native speakers who also performed similarly to these participants. Therefore, there are two possibilities. First, this kind of observed optionality might be related to the discourse of the experiment. It is possible that these participants could not actually recognise the discourse of the experiments or could not understand the instructions (Wilson & Dewaele 2010). Crucially, native speakers do not have an additional grammar unlike the L2 learners. Therefore, it is possible this observed optionality is a consequence of the experimental discourse. However, there is tentative evidence to suggest that the second possibility is the cause of the observed optionality (see the gap-filling tasks sections 6.5.1 and 6.5.2). The second possibility proposes that L1 grammar is the source of the observed optionality in the present study. These participants fluctuated between accept and reject and allowed the L1 option to emerge with the use of such an elicitation tool (see Section 4.5.3 chapter 4). Thus, the optional variants are observed with the careful and suitable experimental design where overt production might not be as revealing in this respect (Mackey & Gass 2011). These participants' ILGs seem to allow two possible interpretations for *v-s* and *be+v-ing* forms. They were required to decide on the acceptability judgment task that these continuations interpreted differently. In other words, they demonstrated optionality pertaining to semantic-interpretative knowledge. In fact, this shows that interface areas are potentially problematic and optionality might affect the interpretive interface aspects of grammar (Sorace 2003; White 2009a).

However, the critical point is whether this optionality will remain part of their L2 grammar. In fact, Coppieters (1987) revealed that advanced French learners whose L1 lacks the distinction of past-imperfect, like English, actually mastered L2 syntax but had difficulties (deviant intuitions) with semantic interpretations associated with grammatical forms in French. Coppieters (1987) made a suggestive distinction between purely syntactic properties

and subtle properties relating to the interpretive knowledge interface. Nevertheless, it is well documented that other internal interfaces such as syntax/morphology remain difficult for advanced learners. For instance, Lardiere (1998b), as previously mentioned, examined the end-state of L2 acquisition of a Chinese-speaking adult learner of English, *Patty.* She found that *Patty* had difficulties in realising bound tense morphology, while her underlying synatctic operations, such as nominative case assignment were fully specified:

10. He call me last night.
11. We spoke English to her.
12. so I wrote and speak fluently.   (taken from Lardiere 1998a)

Lardiere (1998b,2000,2007b) proposed that *Patty*'s problems lie in the domain of morphological mapping between interlanguage syntax and lexicon.[103] This kind of optionality is discussed under the umbrella of "mapping problems" (Haznedar & Schwartz 1997; Lardiere 2000; Ionin & Wexler 2002; Prévost & White 2000). These studies attempt to explain such behaviour in terms of an interface problem between the different modules of the grammar (White 2011a). Extending these ideas to the case in point, the observed optionality in the present study is relevant to the mapping of L2 forms to L2 semantics. The L2 learners essentially faced a mapping problem during their L2 development, needing to establish the link "mapping" between the surface morphology and its interpretations, for example, recognising that the *be+v-ing* morphological form is restricted to occur with progressive interpretations in English. As discussed earlier, mapping or reassembling requires successful semantic analysis for a given form to be true against a particular context. Thus, it might be possible that they mapped L2 morphology to their L1 semantics. In fact, the results reveal that that kind of mapping does occur after the establishment of target-like interpretation

---

[103] Prévost & White (2000) view the issue as a problem of insertion while Hawkins & Liszka (2003) view it as a problem of syntactic representation rather than interface.

(recall they "strongly"preferred the target-like option). Using subtle elicitation tools, these participants still allowed the L1 option to "surface". In other words, they did not preempt the L1 semantic option, and this optionality is a result of L1 influence. This is an extention to Sorace's description in terms of L2 optionality, as it might occur in cases where L1 semantics needs to be preempted. Going back to the the question as to whether this optionality will remain part of their grammar (for the advanced participants who show optionality in the aspectual distinction), there appears to be substantial evidence in the present study that this is not the case. The L1 option does not have an equal status to the target-like option, and the majority of the advanced learners distinguished categorically between the two interpretations.[104] Moreover, English provides robust evidence in the input for the distinction (*v-s/be+v-ing*) in question. In fact, a supplementary analysis will be provided in the discussion of present tense overgeneralisation in the gap filling task 1, low suppliance at the advanced stages show that optionality is eventually overcome. Contra Hawkins et al. (2008) and Gabriele et al. (2003), the results of the present study show that there is likely a high possibility of achieving native-like proficiency in the area of semantic interpretations for adult L2 learners (Montrul & Slabakova 2002; Yamazaki-Hasegawa 2009).

In summary, in this section, it has been made clear that optionality in semantic interpretations is attributable to L1 influence and eventually attainable (least problematic) in L2 acquisition in the long-term. In other words, this observed optionality is not likely to cause divergence. However, the empirical question facing L2 researchers is what constitutes divergence and why some properties are more difficult to acquire than others (Sorace 2003; White 2003b). This is going to be addressed in the next section.

---

[104] See Sorace (2003) and Radford (1996) for a similar kind of optionality within developmental grammar in L1 acquisition.

6.4.2 Selective divergence

As previously mentioned, the disparity between aspectual and temporal interpretations is clearly manifested in the performance of the advanced learners. The advanced participants were unable to accept the present perfect construction where appropriate and reject its interpretation in preterite contexts, so similar to the native speakers. This difficulty was observed at the intermediate level and continued to be observed to the advanced level. The results indicate that all L2 learners, whether advanced or intermediate, performed similarly to each other regardless of learning context. In other words, the results suggest a selective divergence, with the issue being one of property rather than optional performance. The empirical question is then why this property constitutes selective divergence while the aspectual morphology does not. Furthermore, Arabic and English represent the features in question, although realized differently, in the underlying representation. If this is a cause of L1 influence, why then some L1 effects are easily overcome, while others cause persistent problems even at the advanced level (White 2003b; Sorace 2003; Lardiere 2007b; Hawkins 2009). To examine this divergence, we will extend our discussion in section 6.2.3 regarding the interaction between L1 grammar and L2 input and attempt to integrate the discussions of Slabakova (2009) and Lardiere (2009b) to articulate the predictions about the nature of this interaction.

Lardiere (2012, 2009b) pointed out that variations between languages can be reduced to whether or not a certain feature has been selected and assembled into language-specific morphological items (either free or bound) from an inventory of features (interpretable and uninterpretable) available by UG. When learning L2, it is about either transferring the particular features selected in the L1 or selecting a new feature from the universal feature-set. However, while L2 learners come to the target language with a fully developed language, L1

features are already selected and assembled into L1-specific lexical items (Lardiere 2012).

Therefore, the learning task is then to identify, select, and redistribute the particular feature

into L2-specific lexical items (Lardiere 2012). Based on this description, Saudi Arabic

speakers do not need to select the feature [perfect] since it is already selected in their L1, but

they do need to identify that [perfect] is encoded morphosyntactically in English, and

reassemble the particular feature into the *have+v-en* construction. In principle, there is

nothing ultimately preventing Saudi Arabic speakers from achieving this goal. However, the

results suggest the opposite direction and that the [perfect] feature poses a persistent

difficulty. Thus, it is critical to examine what makes this process so difficult, since the

interaction between the input and L1 grammar is a matter of process.

Slabakova (2009) made a speculative prediction based on Lardiere's proposal (2009b) with

respect to the degree of difficulty in L2. She (2009:320-321) pointed out that learning

situations where a mismatch between the L1 and the L2 grammatical feature requires

reassembly is harder and more challenging than learning situations where no reassembly is

required. She proposed a cline of difficulty in grammatical feature (F) acquisition (see Figure

6.6):
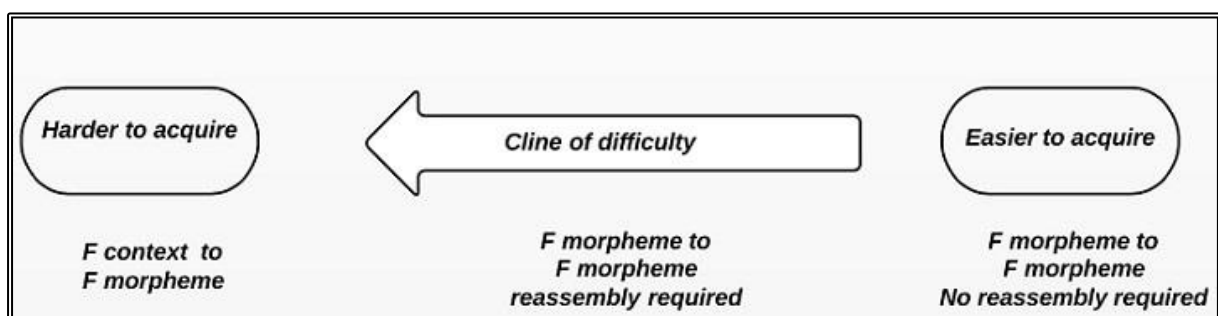
Figure 6.6: A cline of difficulty in grammatical feature acquisition (taken from Slabakova (2009:321)

This cline of difficulty might illuminate the disparity in the results. The progressive feature in the L1-specific lexical item *ga'aad* was mapped onto the progressive feature encoded in the bound morpheme *-ing* in English. On the other hand, the perfect feature is encoded extralinguistically in Arabic but encoded morphosyntactically in *have+v-en* construction in English. Hence, the learning situation in the case of present perfect matches the most challenging task in the scale of L2 difficulty proposed by Slabakova (2009). However, this scale predicts the difficulty, while not fully explaining the divergence.

Crucially, according to Lardiere (2012) the biggest learning challenge is to reassemble the features from the way that are already present in the L1 into new configurations in the L2. In other words, it requires "*cognitive reconstruction*". For example, for Saudi Arabic speakers to learn the plural marking in English, they are required to recognise that plurality feature is obligatorily marked on count nouns that denote "more than one" referent, while in Arabic it is obligatory for "more than two" referents. In addition, plurality is encoded in masculine, feminine, and broken plurals in Arabic while they are grouped into one morpheme in English *-(e)s*.[105] Similarly, they need to cognitively reconstruct the perfective form in Arabic, which can encode both meanings, depending on context, to be redistributed into two morphosyntactic constructions: the preterite and present perfect. In fact, (Lardiere 2009a:420) pointed out that when two or more features are mapped onto a single L1-specific morphological form, it is more challenging for the L2 learner to break this bundle and redistribute the features onto new L2-specific morphological forms.[106] In other words, L1 representation influences the acquisition and redistribution of particular features onto L2 morphological forms. In specific terms, L1-grammar feature organisation needs to be overcome. However, this is only one part of the triangle. As previously stated, this goal is

---

[105] The same can be stated about gender acquisition in Dutch-English or plurality in Chinese-English
[106] Based on the results obtained from (Choi & Lardiere 2006).

ultimately obtainable. In fact, Lardiere (2009b:214) stated that "any feature contrast that is *detectable* is, in principle, ultimately acquirable" (Emphasis added). This is a significant point. Detectability will allow L2 learners to associate a difference in grammatical or meaning function and ultimately construct some sort of representation for it (Lardiere 2009b). This leads to the question of input and whether L2 input provides unambiguous evidence for detecting such a difference.

As discussed in section 6.2.3, *reassembly* requires positive and unambiguous evidence in L2 input. It was hypothesised that English input probably does not help L2 learners associate the perfect temporal feature with the morphological form *have*. Unlike the morphological form *have*, the progressive bound morpheme *-ing* is restricted in its occurrence in progressive contexts and does not cause semantic overlap with the habitual only in rare cases such as the progressive habitual (see Gabriele & Canales (2011) for L2 acquisition). However, the present perfect construction can semantically overlap with its close neighbour, the simple past in English but it differs from it by encoding the meaning of current relevance (Comrie 1976; Klein 1994; Binnick 1991; Bardovi-Harlig 1997). Another source of ambiguity is that *have* can act as a main or auxiliary verb. This confusion might not help the participants to exclusively restrict the temporal perfect semantics to be encoded in *have* morphological form. A third possible source of opacity is the difference between American and British English. These participants probably watch American movies or series and notice that the distinction between both forms is less likely to be used.[107] For example, it is quite common in American movies to hear the phrase "I already ate" while in British English "I have already eaten". Moreover, the use of the preterite in "normally PP [present perfect] contexts" seems to occur quite frequently in American English (Engel & Ritz 2000:126). For example, Palmer

---

[107] Thanks to the audience at the Sheffield Linguistic Postgraduate Conference (2014) for discussion of this topic.

(1974:52-53) pointed out that American English utilises the simple past form in "*Did you wash your hands*" just before a meal, whereas British English utilises the present perfect in this context "*Have you washed your hands*". In other words, American English uses the simple past tense when a recent action is indicated, and this is considered to be more typical of American English (Yao & Collins 2012; Engel & Ritz 2000; Hundt & Smith 1997;[108] McCawley 1981). This might give rise to a misleading conclusion that both forms are quite interchangeable.[109] Hence, the detectability of difference in meaning and grammatical function between the [past] and the [perfect] feature is low, and constructing a new representation is thus slowed down. In fact, this prediction as attested in the results, means that the participants almost equated the present perfect with the simple past form.

Having established that the role of L1 feature organisation and the ambiguity of L2 input might result in a disparity between the progressive and the present perfect, there is also a challenging task to recognise the specific conditions under which their properties may or may not be morphosyntactically realised. This could potentially be an interface problem. In recent L2 research, inability to reach native-like proficiency has been linked to the integration of different levels of linguistic knowledge (Montrul 2011; Sorace & Serratrice 2009). For instance, Sorace & Serratrice (2009) argued that internal interfaces are attainable in the long-term at the near-native level, while external interfaces pose prolonged difficulty, if not being persistent in L2 acquisition (see White (2011a) for a comprehensive review).[110] Sorace (2003) provided evidence for the difficulty at the external interface: syntax-discourse. She

---

[108] The first three references are corpus-based studies.

[109] Although no background questionnaire regarding this issue of input type was collected, I speculated this might be possible because of the dominance of American movies and the recommendation to watch these movies in order to improve English in the Saudi context. Actually, one of the most popular broadcasting companies in the Middle East (MBC) has a channel dedicated to broadcasting American movies (MBC2) and American series (MBC4).

[110] This position has been advanced by Sorace and colleagues, and labelled the "Interface Hypothesis". However, Sorace (2011) has clearly stated it was not meant to account for developmental grammar but for the three domains: simultaneous bilingualism, L1 attrition, and L2 ultimate attainment.

investigated the use of null and overt subjects in Italian a null subject language by English speakers. She argued that near-native Italian L2 learners will encounter prolonged difficulty in determining when overt subjects should be used or supplied. These learners acquired the null subject parameter because when they used it, they used them appropriately in appropriate contexts. However, they overused overt pronouns in contexts where native speakers of Italian would not. For example, the answer to the question in (13) involves already the mentioned subject in the discourse. Hence, it involves old information, meaning that a null subject would be appropriate in Italian whereas an overt pronoun would not:

13. Q:Perche Lucia non ha preso le chiavi?
      Why Lucia not has taken the keys

     'Why didn't Lucia take her keys?'

    A: Perche *lei /__ pensava di trovarti a casa

      Because (*she) thought of find-you at home

      'Because (*she) thought she would find you at home.'   (taken from Sorace (2003:140)).

She demonstrated that near-natives allow the overt pronoun to be used (influenced by L1) in cases where no topic change has occurred and to refer back to an already mentioned topic in the discourse. Sorace also pointed out that this performance indicated a problem at the syntax-discourse interface by allowing an overt pronoun to refer back to a continuous topic (Grimshaw & Samek-Lodovici 1998). In other words, discourse/pragmatic (external) constraints pose prolonged difficulty and take longer to be acquired if at all, while L2 syntax is acquired.

Similarly, the interface phenomenon probably contributed to the disparity between the progressive and the present perfect. The present perfect somehow requires pragmatic information since it links the event to the moment of speech, "current relevance" (Comrie

1976; McCawley 1981).[111] Hence, a link is established between the event and the moment of the speech, whereas the preterite presents the event as cut off from the moment of speech (Engel & Ritz 2000). In other words, pragmatics might play a role in this construction of information (Bardovi-Harlig 1997). Consider the following sentences taken from Liszka (2004:217):

14. I have cycled to work for many years.
15. I cycled to work for many years.

Both sentences co-occur with the same time adverbial, but they convey different interpretations and viewpoints depending on the speaker's choice. The first one presents the intention to continue doing the activity, whereas the second one presents a cut-off between the event time and the moment of speech (Liszka 2004). Compared with the progressive marking *-ing,* it seems that the present perfect needs contextual information in order to establish the time frame, whereas progressive marking is morphologically computed at the syntactic-semantic interface. In the absence of contextual information, consider the following two sentences with progressive marking and present perfect construction:

16. Ali is writing a letter.
17. Ali has written a letter.

The progressive *-ing* marking encodes progressive interpretation morphologically computed at the internal interface; the inflectional morpheme *-ing* is mapped onto its semantics regardless of the context, whereas the present perfect can convey a range of interpretations such as the recent past, as in the case of "Ali has just written a letter" or resultative interpretation. In other words, the meaning of the present perfect is computed at syntax/semantics/pragmatic interface (Montrul 2011). Thus, it requires information from the

---

[111] The notion seems pragmatic in nature.

context for the meaning to be constructed. Recall that in the L1 grammar, context/pragmatics plays a key role in achieving the intended perfect meaning. For the L2 learners in the present study, potential problems arose at the interfaces, and the divergence in performance is attributable to computational complexity, and in most cases interacting with L1 effects (Liszka 2004).

To summarise so far, it does indeed appear that the present perfect interpretation presents the most challenging learning task for Saudi speakers, when compared with progressive marking (see Slabakova (2009) for the cline of difficulty). In addition, Lardiere's discussion about feature reassembly suggests that the participants would encounter more difficulty in breaking down the bundle of features that are represented in the L1 into new configurations in the L2. Moreover, L2 input seems ambiguous and does not offer much help for L2 learners to detect a difference in meaning and grammatical function, and so to construct new configurations. Finally, computing the perfect meaning requires the integration of an external interface unlike in the progressive marking. The following diagram (Figure 6.7) illustrates the triangle of factors that probably contributed to the divergence in the present perfect:
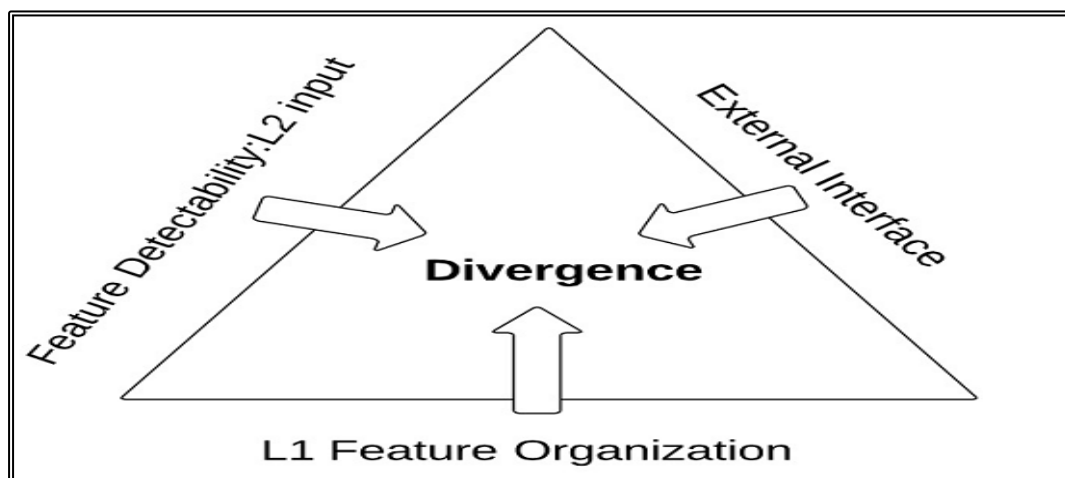
Figure 6.7: Triangle of potential factors resulting in present perfect divergence.

6.4.3   Towards a comprehensive model

In this section, I will attempt to consider the evidence presented here towards our understanding of L2 research. In general, I have evidence for the idea that some properties of L1 representation are easily overcome while others pose persistent difficulty (White 2003b). Results from the acceptability judgment task show that aspectual properties (*v-s/be+v-ing*) were easy to acquire, which is contra to Coppieters (1987); Hawkins et al. (2008); Gabriele (2005), but similar to what is reported in Slabakova & Montrul (2002); that is, that aspectual properties in the area of semantic interpretations are acquirable by adult L2 learners since they are part of the linguistic system provided by UG. In addition, I seriously examined those few learners who were at the advanced level and not successful in recognising aspectual properties. It was revealed that this reflects a competing grammar (target-like being strongly preferred) towards a native-like distinction due to the use of subtle elicitation tools. I concluded this performance might not remain permanent in the long-term, and that native-like convergence is possible.

On the other hand, temporal interpretations (*v-ed/have+v-en*) were seen to pose prolonged difficulty, especially in the case of perfect meaning. This disparity, between both tested aspectual/temporal interpretations, was clearly manifested in the performance of the advanced learners. I have presented the evidence to show that this learning task was actually quite challenging (Slabakova 2009). Compared to progressive marking, we argued that it is possible to account for this divergence if we also take into account the feature organisation in the L1 representation, the reassembly, and the detectability processes that interact with L2 input (Lardiere 2009b). These processes require evidence from the L2 input so that the learner can associate a difference in a minimally contrasting form with some differences in

function either grammatical or meaning (Lardiere 2009b). This process can allow the learner to start constructing and establishing a representation so that the feature in question can be realised. Moreover, the integration of discourse information in the case of perfect meaning makes acquisition harder (Sorace & Serratrice 2009). The syntax of the sentence must be mapped onto the discourse. This relates, in other words, to how these discourse properties are realised (in terms of relevance). Computational complexity poses difficulty and in most cases interacts with L1 effects (Liszka 2004).

In this section, we have attempted to illuminate why some areas cause observed difficulty for Saudi speakers in Lardiere's framework (2009b). Nevertheless, this conclusion is based on the comparison of the participants' performance in this present study and it does not offer a definitive explanation for the selective divergence reported in SLA research. Moreover, this discussion was limited to the judgmental data. The relationship between this kind of evidence and the overt production will be examined in the next section to see whether this evidence mirrors what is overtly (written) produced.

6.5   Is there a Relationship between the Knowledge of Production and Underlying Knowledge?

In this section, the results from the gap-filling tasks will be integrated with the findings from the previous discussion. The goal is then to determine whether the written production mirrors what was observed in the judgment data from the previous discussion. The production tasks are complementary to the interpretation-based tasks, and the factors that affect interpretation can be also seen in production (Salaberry 2008). Is there a close relationship between production and underlying knowledge or is there expected to be a differential behaviour in terms of suppliance in obligatory contexts, and acceptance in the interpretation-based tasks (Gabriele 2005; Collins 2007; Slabakova & Montrul 2002)?

The significance of this relationship stems from the fact that the knowledge of how to use the form necessarily involves knowledge of how to interpret it (Bardovi-Harlig 1992; Gabriele 2005; Slabakova & Montrul 2002). Moreover, as discussed in Slabakova & Montrul (2002), *some* of their participants actually produced and supplied the form before the knowledge of how to interpret the form was acquired. In other words, the acquisition of morphology precedes the acquisition of semantics. Slabakova & Montrul concluded that grammatical forms emerge and are supplied before they carry target-like meaning. They attributed this finding to the task being used as "a typical classroom exercise". Classroom learners are instructed extensively about verbal inflections with respect to tense and aspect. Hence, this finding seems to be possible given this educational fact. Building on this finding, the study included classroom learners in EFL contexts. However, classroom instruction focuses mainly on grammatical forms in isolation and more practice on the usage of rules (Pica 1975). Accordingly, it is crucial to investigate whether or not L2 classroom learners can supply the form productively before they actualy acquire the target-like meanings behind them (Collins 2007).

Moreover, the investigation of this relationship can inform us about what kind of difficulties are observed in interpretations and written suplliance. For example, early morpheme studies (reviewed in chapter 3 section 3.2) reported that some aspectual and temporal inflections appeared earlier in the learners' production, but does this mean that the learner has mastered the target-like meaning (White 2003b; Slabakova 1997)? This is critical given the fact that it is likely possible that some L2 learners might produce target-like morphology with non-target-like interpretations similar to what is reported for L1 acquisition (see Wagner 2001). In other words, does overt – in this case written – production only tell us about learned knowledge of an inflectional paradigm or does it reflect knowledge of the interpretation and

meaning? In the domain of L2 syntax, Lardiere (1998b) revealed that her informant *Patty* demonstrated native-like underlying syntax (such as verb-rasing, negation, and nominative case assignment) while her overt past inflection was impoverished, around 34%. She concluded that the development of L2 syntax proceeds independently from the development of L2 morphology.

However, as previous mentioned, we hypothesised that if the L2 groups have come to have the knowledge of how to use the morphology in the appropriate contexts, they seem to demonstrate, by implication, the necessary knowledge of how to *interpret* these forms.

6.5.1   Results from gap-filling 1

The results from the first gap-filling task 1 reviewed in chapter 5 are summarised in Figure 6.8. The figure shows the total suppliance rates for all the groups in intended contexts:
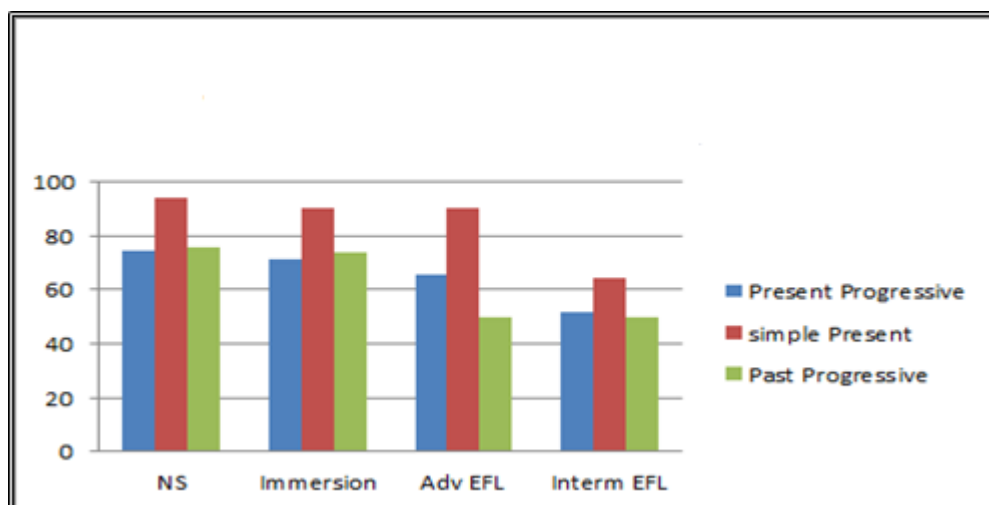
Figure 6.8: Suppliance rates for aspectual morphology in intended contexts in gap-filling task-1

The results reviewed in Chapter 5 indicate that advanced groups (immersion and advanced EFL) were not statistically different from the native speakers regarding the suppliance of the

present progressive. The emergence of suppliance in the intended contexts was observed from the intermediate stage. The examination of the other forms used in the context of the present progressive did not reveal a significant competing form. However, as seen in Table 5.13 (page 188), the intermediate group produced more simple present forms (around 23% of the time). This confirms our prediction that optionality in this domain starts from the intermediate stage and has almost disappeared at the advanced level (Schwartz & Sprouse 1996; Yamazaki-Hasegawa 2009; Slabakova & Montrul 2002; White 2003b). The intermediate group allowed the simple present to be used in the context of the present progressive. This demonstrates a restructuring process to recognise that thematic verbs in English do not have the strong [*u*Infl:*] feature. However, this performance increases with increasing proficiency. The intermediate group was statistically different from other L2 groups on the suppliance of the simple present (see Table 5.13). Nevertheless, this does not disappear completely from the advanced level as the advanced groups were also statistically different (significantly) from the native speakers on the suppliance of the simple present (around 8% immersion and 13% advanced EFL).[112] In other words, this performance mirrors what is already observed in the judgmental data in terms of being reminiscent of L1 grammar at the advanced level. Contra Hawkins & Hattori (2006), the advanced adult participants demonstrated knowledge of establishing the uninterpretable features associated with the [prog] category by producing the *be+v-ing* form to describe only progressive interpretations in a native-like manner. In addition, they did not overgeneralise the simple present to have progressive interpretations. By doing so, they demonstrated knowledge that English verbs do not have the strong [*u*Infl:*] feature as in L1 grammar. This performance seems to indicate that the advanced groups established that *be* is an exponent of the [prog] category. Furthermore, the observed optionality at the advanced level seems to be temporary, and

---

[112] This shows the significance of investigating L2 interpretations to reveal optionality at advanced stages otherwise these numbers would not be considered significant.

eventually overcome as is reflected in the low suppliance rates of the simple present form (see Table 5.13).

In relation to the lexical aspect, the "Aspect Hypothesis" presupposes that *-ing* progressive marking in production is more likely to be associated with durative predicates than with achievement or stative verbs (Andersen & Shirai 1996; Shirai & Andersen 1995; Li & Shirai 2000). By contrast, achievement verbs are assumed to be more inherently compatible with perfective morphology (Li & Shirai 2000; Comrie 1985). The suppliance rates were broken down by the property of lexical aspect in Table 5. 10. The results indicated that the native speakers and L2 groups were more likely to supply the progressive form when the predicate was durative rather than achievement or stative verbs. However, the native speakers were statistically different from the advanced groups in the case of durative, although not in the case of achievement or stative verbs. The advanced groups, however, equated the suppliance of durative with stative verbs, while the intermediate group followed the same pattern entertained by the native speakers. The results seem to suggest that L2 learners do not produce progressive marking on the basis of the inherent properties of the lexical aspect, but it is established syntactically as an independent category regardless of the verb type (Adger 2003; Hawkins et al. 2008). The "Aspect Hypothesis" presupposes that early and intermediate learners associate grammatical marking (*-ing*) with the inherent properties of the lexical aspect. However, the intermediate group already produced the progressive morphology with all verbal predicates, and the over-suppliance of *-ing* with durative, and the under-use with achievement and stative verbs seem normal and resembles what is observed and attested in the native speakers' performance as well as and in contrast to the predictions of the "Aspect Hypothesis" (Andersen & Shirai 1996).

Crucially, the "Aspect Hypothesis" mainly focuses on overt production and restricts its predictive power to superficial performance. It is noteworthy to stress that the "Aspect Hypothesis" does not share the same assumptions of the Minimalist Program, for example, the connection between the nominative case assignment and tense (see Costello & Shirai (2011) for critical comments on Haznedar (2007)). However, the results on the present progressive in Figure 6.8 seem to match what is already seen in the judgmental data. The L2 groups have come to have the knowledge of how to *produce* the morphology in the appropriate context, and they seem to demonstrate, by implication, the necessary knowledge of how to *interpret* these forms (see Chapter.3 section 3.5 for critical review).

Similarly, the results relating to simple present suppliance (see Figure 6.8) suggest that the advanced L2 groups largely produced the intended morphology in intended contexts, as did the native speakers. However, surprisingly, the intermediate group under-produced the simple present morphology (around 64%). This is an unexpected result. Nevertheless, the examination of the other forms used in the simple present contexts revealed that there was no competing form but there was misinterpretation and misunderstanding of the task under consideration (Wilson & Dewaele 2010). They mainly supplied modals such as *may* and *must* followed by an uninflected verb form. They interpreted the context "You …... (need) to take the bus to get there" as "You *may* need to take the bus to get there". The classroom learners had been extensively instructed about the use of modals especially in the early stages of learning, and they had received more input on modals and how to use them, such as in requests (how to be more polite). It is most likely that they wanted to imitate this knowledge and to add more emphasis or probability to the statements being tested. Therefore, this misinterpretation of the task discourse (they were told that they could use an auxiliary when required) and the nature of classroom instruction resulted in under-performance by the

intermediate group on the simple present morphology (around 22%). Again, the intermediate group (as well as the other L2 groups) demonstrated knowledge of the [prog] category by restricting its use to only progressive contexts (around 11%). This can all be taken to indicate that L2 groups have established native-like representations for thematic verbs in English, contra Hawkins et al. (2008). Overall, the results in the gap-filling task, from the simple present and the present progressive, suggest that the L2 learners were sensitive to this distinction and this is actually reflected in their written suppliance, implying that both forms are distinctly represented. Particularly, the restrictive suppliance of morphological forms to certain type of meanings is an indication of the underlying representations that L2 learners construct in their ILG.

On the other hand, the results from the past progressive seem unexpected especially in the advanced EFL group. As can be seen in Figure 6.8, the advanced EFL group produced the past progressive in a similar way to the intermediate group. Interestingly, this under-use was only observed in EFL context. The immersion group was not statistically different from the native speakers. This is strikingly surprising and contradictory to the judgment data where it was hypothesised that L1 grammar can accommodate L2 structure. Thus, acquisition would proceed with ease and pace. The past progressive in acceptability judgment task appeared to pose no acquisitional difficulty from the intermediate stage (see Figure 6.03 and Table 6.2). Why this difference and is it related to performance, lexical aspect, or input? This requires deep analysis and further investigation.

In relation to lexical aspect, the suppliance rates were broken down to reveal any differences resulted by lexical aspect. The results reviewed in Chapter 5 in Table 5.16 revealed an interesting pattern emerging in relation to lexical aspect. The participants, including the native speakers, were less likely to produce the past progressive form when achievement

predicate was involved (see also Gabriele 2005; Bardovi-Harlig 2002). The native speakers and the immersion group produced past progressive morphology in the intended contexts of around (60%). On the contrary, the EFL groups produced it around 20% for the advanced and 30% for the intermediate. The statistical analysis also revealed that the participants performed similarly on both durative and stative verbs. In addition, the advanced EFL group performed almost similarly to the immersion group for both durative and stative verbs but produced strikingly different results for achievement verbs. In other words, the performance deficiency can be attributed to the achievement verbs. However, it is critical to note that the performance of the native speakers and immersion group was also not expected. The suppliance rates for them reflected some difficulties and problems as well (around 60%). Given these observed facts, why do achievement verbs generally cause difficulties in the past imperfective and why are there more serious problems in the EFL context? Compared to the judgment data, it is unclear why the EFL groups under-used the past progressive, where it was assumed that their L1 representation would enhance their L2 acquisition (Schwartz & Sprouse 1996).

The examination of other forms used in the past progressive context revealed that past or perfective morphology was the main competitor and was more likely to be produced compared with any other form. It was produced in around 18% NS, 15% immersion, 28% advanced EFL, and 20.5% intermediate EFL. This shows that most of the variance can be accounted for by the past morphology. Again, the examination of test items revealed it was from the achievement predicates. In other words, the findings revealed that some participants interpreted some sentences with achievement verbs as *perfective* instead of *ongoing*. This behaviour was observed in the native speakers and also found its way into the L2 groups' performance. Thus, past progressive on achievement verbs merits closer scrutiny

6.5.1.1   Why are achievements more difficult in the past progressive?

The observed achievement difficulty in the past progressive was evident and attested in the performance of all participants. However, this difficulty was stronger and more serious with the EFL groups. In fact, there is evidence in L1 acquisition that English children encountered such a problem. Wagner (2001) demonstrated that English children conflated tense and aspect and interpreted past markers such as auxiliary *was/were* to refer to a completed action. She concluded they incorrectly mapped grammatical aspect onto tense. However, the participants in the present study are adults, having a fully developed system of reality and tense. Therefore, this could either be a result of or a performance related problem or the experimental design. We will start our discussion with the first possibility.

So far, we have substantial evidence that tense and aspect are fully represented in the ILG of the Saudi Arabic speakers. Thus, it seems unlikely that tense and aspect are incorrectly conflated as in Wagner's study. The proposal places the difficulty in the past without fully explaining the discrepancy for the verb phrase. However, it is possible that the difficulty comes from the level of the VP phrase. Achievement verbs are assumed to be more compatible with perfective morphology (Li & Shirai 2000). The learners produced the past progressive more with durative and stative verbs than with achievement verbs. This sounds plausible within the Aspect Hypothesis paradigm (Andersen & Shirai 1996). Contra the predictions of the "Aspect Hypothesis", such difficulty does not arise in the present progressive. Furthermore, it is unlikely that L1 grammar was the result of this under-performance. L1 grammar actually accommodates the structure, and it was assumed, as previously mentioned in section 6.2.2, that it boosted their performance in the acceptability judgment task. Hence, we have established so far that the difficulty is not related to either a mapping or computation problem or to the VP phrase in the underlying structure.

The second possibility assumes that there was a problem with the experimental design in particular with the interpretation of the test items. Indeed, this turns out to be the case. The closer inspection of the test items reveals that the native speakers actually interpreted some contexts as being perfective or completed:

18. When the photo-finish appeared on the screen, Dan…….. (cross) the finish line.
19. At the same time as the party started, I ……….. (leave) home.
20. The plane ……………………………… (land) at the airport when one of its engines broke down in mid-air
21. I just managed to return my book to the library yesterday. When I arrived there, it ……………………………. (close).

The non-intended perfective morphology came from the items in 18 and 19. They interpreted these contexts as a sequence where the first event occurred and was followed by the second one, and not as occurring at the same time. They interpreted that *Dan crossed the finish line* and then the *photo-finish appeared on the screen*. This is surprising and was not observed in the second pilot study, and what adds to this surprising finding is the presence of the lexical markers "when" and "at the same time". This non-intended suppliance resulted in lower suppliance rate in the case of achievement. Crucially, this surprising finding found its way into the performance of the L2 groups. They followed the native speakers and produced perfective morphology in these contexts as well. Moreover, the EFL groups performed worse on 20. Some of EFL participants produced a passive construction as "*it was closed*" as can be seen in Table 5.17 under the heading "*others*": around 11% advanced; 16% intermediate. Given the fact that context was provided, this is intriguing. One possibility is that they are used to seeing "*closed*" as an adjective in such a context. This is a speculation and needs further evidence. However, we have demonstrated that the difficulty in the past progressive is actually attributable to the interpretation of the test items. This misinterpretation is attested in the performance of both the native speakers and the L2 groups.

So far, it has been shown that most learners have come to acquire the knowledge of the past progressive and produce it appropriately in native-like contexts. This knowledge seems to be in place and the results from the gap-filling task match those from the judgment data, even though some properties of lexical aspect are lagging behind. Crucially, as stated earlier, the past progressive is generally lagging behind and is also harder to acquire (Bardovi-Harlig 1992).

In summary, the results from the gap filling task 1 match and mirror what was already observed in the acceptability judgment task. In addition, the findings support our initial prediction that if the L2 learners are able to produce the morphology in the intended contexts, they have the knowledge necessary to interpret these forms, and not only a mastery of morphological paradigm. Particularly, they showed that they were able to figure out how the mapping between meaning and form is encoded (Slabakova 2010). In other words, performance in the gap-filling task is supplementary, and a further reflection of the underlying representation of their ILG (Salaberry 2008; Slabakova & Montrul 2002).

6.5.2 Results from gap-filling task 2

The results from the first gap-filling task 2 reviewed in Chapter 5 are summarised in Figure 6.9. The figure shows the total suppliance rates for all the groups in obligatory contexts:
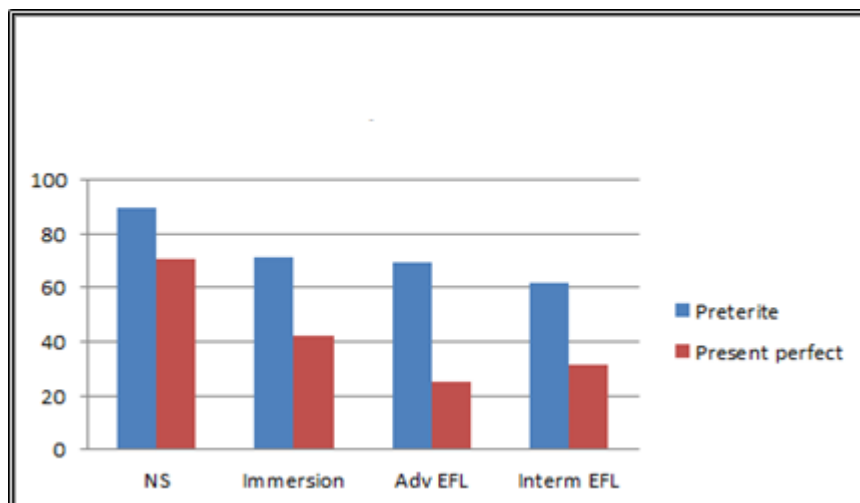
Figure 6.9: Suppliance rates for temporal morphology in obligatory contexts gap-filling task 2

Recall that the gap-filling task was a passage with a number of blanks testing the production of temporal morphology. The results reviewed in chapter 5 and summarised in Figure 6.9 reveal that the L2 learners notably produced the preterite morphology in the obligatory contexts. The statistics reveal that the advanced groups (immersion and advanced EFL) were not statistically different from the native speakers even though the suppliance rates were not numerically high. The intermediate group was not significantly different from other L2 groups. This indicates that the L2 learners had no problem in producing the preterite morphology in the intended context. Crucially, the examination of other forms used in the preterite context did not reveal any significant competing form, but a distributed performance on a range of forms. Nevertheless, there were some observations about the suppliance of these non-intended forms. There were some participants who produced present perfect morphology in the preterite contexts. However, the suppliance rate is really small and non-indicative at around 5%. There was also a suppliance of the present morphology and this was around 11%. It was assumed to be a result of L1 grammar because fewer restrictions on temporal clause agreement were imposed. In Arabic, it is possible not to have agreement on

tenses between clauses, unlike in English. However, this is a speculation that needs further investigation. It was raised to draw researchers' attention to this problem when conducting future research, even though the number was not statistically high. Therefore, the performance of the preterite morphology in gap-filling task-2 seems to match the findings from the acceptability judgment task 2. The learners produced the preterite forms in the intended contexts and, by implication; they reflected the knowledge of interpreting them. The examination of other forms produced in the context of the preterite did not reveal any significant competing form rather than minor deviations from the preterite.

On the other hand, the suppliance rate summarised in Figure 6.9 demonstrates under-performance by the L2 groups, compared with the native speakers on the present perfect. The results reviewed in Chapter 5 revealed that the native speakers were statistically different and distinct from the L2 groups. Moreover, the L2 groups performed similarly to each other regardless of proficiency level or learning context. Their suppliance rates were numerically low and they performed at chance level. In other words, the performance for this task mirrors the difficulty observed in the judgment data.

In relation to lexical aspect, the results did not reveal any significant difference between the verbal predicates used by the L2 groups. In other words, the lexical aspect appeared to play no role in this under-performance, and the L2 learners did not associate tense with lexical aspect in their ILG as the "Aspect Hypothesis" predicted (Andersen & Shirai 1996). However, the examination of other forms used in the present perfect context reveals that the preterite morphology was the main competitor (see Table 5.19). They supplied the preterite morphology of around 40% immersion, 57% advanced EFL, and 35% intermediate EFL. The results actually reveal that the L2 groups significantly produced more preterite morphology than the native speakers in the context of the present perfect. In fact, suppliance rates for the

preterite morphology appear to be higher than the suppliance rates for the present perfect. This demonstrates that the L2 groups could not pre-empt using the preterite morphology in the context of the present perfect. Recall that Arabic conveys both meanings via a single morphological form. Although they produced the intended present perfect, this suppliance is numerically low and reflects a learned knowledge as previously assumed (Schwartz & Gubala-Ryzak 1992). However, contra Bardovi-Harlig (1997), the l2 learners significantly and numerically produced more preterite morphology than present morphology in present perfect contexts. If the learners are trying to build up the compositional features of the present perfect [+anterior, +current relevance], it is then unclear why they only produced [+anterior] feature. It should be expected at least a variable use of both preterite and present morphology. The results in Table 5.19 revealed a very low suppliance rate for the present morphology of around 5%. However, when the role of L1 feature organisation is taken into account, the preterite suppliance is predicted. In L1 grammar, the same morphological form can encode both meanings depending on the context (Bahloul 2008; Fassi-Fehri 2004). The learning task was then to isolate the present perfect from L1-specific form and map it onto L2-specific form, in this case *have+v-en* (Lardiere 2012). However, while their ILG associates the preterite marking *-ed* with past events, it does not pre-empt using the preterite forms in the present perfect context. This performance in the gap-filling task supports our findings in the acceptability judgment task whereby the interaction of L1 grammar and L2 input was not helpful for the L2 groups in terms of recognising and reassembling the perfect meaning with the auxiliary "*have*". Crucially, the results suggest that the perfect construction is more likely to be a prolonged difficulty in their L2 acquisition. The L2 learners largely underused the present perfect construction in intended contexts at advanced levels of proficiency.

In summary, the results in Figure 6.9 show that the L2 learners under-produced the present perfect in intended contexts, while the preterite form was instead overused in these contexts. While they can associate preterite morphology with past events, they still allow the same form to be used in present perfect contexts. This indicates that the target-like performance on temporal distinction is not obtainable and posed a persistent difficulty for Saudi speakers even at advanced levels. Crucially, the results match and support our discussion of selective divergence in section 6.4.2. The learners were unable to pre-empt and reassemble the perfect meaning from the preterite form as represented in their L1 grammar (Lardiere 2009b), and the performance in the gap filling task 2 supports our findings with regard to selective divergence in the present perfect. Again, the performance also supports our hypothesis that the L2 learners will not produce the form in obligatory contexts if they do not have the necessary knowledge to *interpret* it. This presupposes a kind of relationship between judgment data and the performance in gap-filling tasks. The next section will investigate this relationship.

6.5.3   What kind of relationship exists between form and meaning?

In this section, I will address the relationship between form and meaning. As previously mentioned, the question that has been an interest for SLA research is whether the emergence and the appearance of form indicates the knowledge how interpret the form (Bailey et al. 1974; White 2003b; Slabakova 2008; Slabakova & Montrul 2002; Gabriele 2005). If L2 learners produce the morphology, does this necessarily indicate a mastery of its semantics? Montrul & Slabakova (2002) reported that some learners produced the morphology before the acquisition of semantics had taken place. They attributed this result to the nature of the classroom learning setting. Indeed, L2 classroom learners might produce well-formed morphological verbs but they appear in inappropriate contexts or in non-target-like contexts

(Bardovi-harlig & Reynolds 1995; Bardovi-Harlig 1992;1999; Collins 2007). Recall that the present study has groups of typical classroom learners.

Therefore, the study will focus on whether L2 participants might perform well on meaning before producing the appropriate morphology or vice versa. Our first hypothesis is that those production tasks are complementary to the interpretation tasks, reflecting that the knowledge of how to use the morphology in the appropriate context seems to demonstrate, by implication, the necessary knowledge of how to *interpret*.

The results reviewed in Chapter 5 reveal no obvious correlation pattern between the interpretation characterised by acceptance and rejection and the production of the property in question. However, Spearman rho statistical tests revealed some correlations, although not a general pattern in the participants' performance. The results, nevertheless, did not seem to numerically correlate and there was no obvious *correlating* relationship between judgment data and written suppliance rate. The deeper analysis based on L1 background graphically revealed that graphical visualisation seems to display a sort of falling and rising line in case of the Saudi-Arabic speakers in present habitual, present progressive, past progressive, and preterite constructions, but not in the case of the present perfect (see Figure 5.21). A scatter-plot of the total means revealed that failure to find a correlation in the case of the present perfect seems to be a consequence of floor effects (see Figure 5.22). Indeed, the present perfect posed a persistent difficulty to L2 learners, even at advanced levels of proficiency. Therefore, the deeper analysis revealed some insights at the macro level about the failure to find correlations between interpretation and suppliance. Crucially, this contradicts what was previously observed, whereby knowledge of form precedes the knowledge of meaning (Bardovi-Harlig 1992; Montrul & Slabakova 2002; Montrul 2004). Therefore, there appears

to be a connection between form and meaning. The emergence of form indicates knowledge of the associated semantics is being established in their ILG.

However, if the numbers don't numerically correlate, the results generally indicate a *tight* relationship between interpretation and suppliance. There is substantial evidence that this kind of relationship exists between the knowledge of interpretation and the knowledge of suppliance. In fact, Montrul & Slabakova (2002) generally concluded that mastery of the semantics of L2 forms and the knowledge of appropriate use develop simultaneously in L2 development. The results of the present study seem to point to a similar direction. They indicate a developmentally close relationship. In many cases, the L2 learners performed similarly in both tasks and there was no better performance in the task of interpretation than in the task of use. However, when there was a problem with the knowledge of the semantics associated with the form, it was also observed in in the suppliance of that form. For instance, there was an observed problem with present perfect semantics and it was difficult in both tasks unlike other properties. In fact, the findings suggest that the present perfect form is likely to be a delayed property, if not a persistent problem in their ILG. This was indeed clearly manifested in both tasks.

In summary, the results in this section indicate that although the numbers don't numerically correlate, the study does confirm that there is a *tight* relationship between interpretation and written suppliance (cf. Montrul & Slabakova 2002; Gabriele 2005; Bardovi-Harlig 1992). A comparison of the results from both tasks point to a developmental relationship. If there was a problem with knowledge of the semantics associated with the form, it was also reflected and mirrored in the production of that form. Therefore, written suppliance (form) can inform us about the knowledge of associated semantics of that form and vice versa. In fact, overall results suggest that we can infer or expect delayed or problematic semantic knowledge from

observing correct/incorrect morphological production or vice versa. In other words, tapping into the knowledge of interpretation can inform us about the knowledge of use and vice versa. For instance, the present perfect was reported to be problematic and posed prolonged difficulty in both tasks, although the participants in the present study received formal instruction about it. Contra Collins (2007), Saudi Arabic speakers did not produce the form productively in the classroom setting but at a very low suppliance rate, similar to their performance in the judgment data. This leads to our next question as to the effect of formal instruction in L2 acquisition.

6.6 Does Formal Instruction or Learning Setting Make a Difference in this Domain?

As previously stated, early morpheme studies (reviewed in Chapter 3 section 3.2) reveal a gap between L2 instruction and the developmental path for accuracy with L2 English morphemes (Bailey et al. 1974). Although the learners had different instructional experiences, they almost all followed a similar developmental pattern with regard to L2 grammatical morpheme accuracy. Since then, the question that has been formulated and inspired much research in L2 literature as whether or not L2 explicit instruction can affect L2 underlying knowledge. While L2 research reports a difference in terms of effective and positive impact for explicit instruction, there appears to also be conflicting and unclear findings in the instructional interventions (Norris & Ortega 2000). For instance, White (1991) reported that French-speaking learners of English improved on adverb placement after five weeks of explicit instruction in transitive structures.[113] French word order is different from English word order with respect to adverb placement. French-speaking learners of English should recognise that preverbal adverbs as in (22) are grammatical in English whereas the French order in (23) is not:

---

[113] This was the particular focus of many studies by White and others. These received a lot of attention in the area of triggering L2 parameter resetting.

22. Mary often speaks English. (English order)
23. Mary speaks often English. (French order)

The learners improved by accepting the English word order and rejecting the French. However, they overgeneralised their rejection of the incorrect word order to a plausible similar sequence in English, as in SVAPP (intransitive) *she walks happily to school*. White concluded that they developed a learning strategy to disallow adverbs in the post-verbal position, whether this was acceptable or not. Crucially, in a delayed post-test, with no more explicit instruction on adverbs, the learners switched back to allow the French word order. The findings revealed relative ineffectiveness of explicit classroom instruction in bringing about a change in implicit knowledge (White 2003b). In other words, explicit classroom instruction may not guarantee that classroom input will permanently shape learners' underlying knowledge.

In relation to the present study, the participants received formal EFL classroom instruction; there was a group who received English language courses upon their arrival and immersion into an English-speaking context. However, the classroom is seen to be typically restricted in nature in contrast to immersion learning contexts. The source of input is typically either the teacher or the textbook (Gass & Selinker 2008). The immersion group involved a number of undergraduate and postgraduate students (mostly postgraduate) who were studying at academic institutions. They must have experienced some sort of academic writing and been exposed to an authentic English style. In addition, their stay surely provided them with the opportunity to practice English with native speakers. Hence, these minimal differences were predicted that these differences might affect the acquisition of form-meaning mappings. Crucially, the nature of classroom instruction is more likely to focus on grammatical forms and include more practice of rule usage rather than meaning-form associations. In fact, one observation made about the EFL classroom is that areas where more integration is required

(like tense and aspect) pose more difficulty for classroom learners (Kharma & Hajjaj 1997; Pica 1975; Slabakova 2008; Gass & Selinker 2008). Therefore, it is assumed that all the participants received instruction about the tested properties at some point of their acquisition. Yet, they are distinctly different by learning context.[114] It was hypothesised that being immersed in and studying at an academic institution in an English-speaking country might bring about grammar change in some properties compared to classroom input. In fact, White (2003b:157) pointed out that some property of the input triggers a particular setting.[115] Hence, the study will compare the performance of the EFL classroom learners and the immersion group in order to reveal any behavioral differences related to learning context and instruction.

In relation to experimental tools, Norris & Ortega (2003) pointed out that common assessment tools are problematic because they allow the learner to utilise explicit knowledge during the experiment, and might obscure some observations about the underlying knowledge. Therefore, a number of measures were taken to control this deficiency such as minimising the opportunity for planning and careful thinking (Mackey & Gass 2011). In addition, the typical classroom exercises such as gap-filling were included to reveal any behavioural differences attributed to task-type. According to Collins (2007), classroom learners might produce the form productively before establishing any knowledge of the associated semantics. If this is the case, we might expect EFL classroom learners to perform better on the production task than on the interpretation task (Montrul & Slabakova 2002).

A comparison of the results between experimental groups generally revealed no obvious difference between being in an EFL context and an immersion setting with regard to the

---

[114] Recall that the immersion group did not score statistically differently from the advanced EFL group in the Cloze test even though the immersion group was numerically higher.
[115] It refers to the fact that experience of academic writing and immersion with native speakers might provide the additional information necessary for restructuring and reassembly to take place.

properties in question. The overall results indicate that both groups performed similarly in all tested properties. The only difference was seen in past progressive suppliance with achievement verbs. The participants performed well on almost all the tested properties except the present perfect. Hence, it is unclear whether their target-like performance can be attributed to instruction or the property in question. Recall that they are categorically different by learning context. Crucially, the present perfect construction was predicted to reveal a difference related to learning setting, and both groups received formal instruction about this. However, the immersion learners were university students and they had surely experienced academic writing in their studies. This context provides more integration and transparency for utilisation of the present perfect. The present perfect is used in the genre of academic writing, in contrast to classroom learning, where instruction is more about rule and usage. However, the results demonstrated impoverished performance on both tasks by all groups. In fact, the intermediate EFL learners performed similarly to the advanced EFL and immersion groups. The conclusions that can be drawn from the performance of the participants on the present perfect construction are three fold.

First, formal instruction did not help the learners to perform at least above chance level in the gap-filling task even at the advanced level. Similarly, performance on the acceptability judgment task was lower than the native speakers, and there was no difference between L2 groups. The impoverished performance reflects only learned knowledge and does not reflect underlying knowledge. In other words, formal explicit instruction affected learners' "learned linguistic knowledge" while their underlying ILG knowledge remained intact (Schwartz & Gubala-Ryzak 1992).

Secondly, the results show that instruction can potentially be effective for some properties (progressive, preterite, present) but not for others (such as present perfect). In other words,

the effect of instruction is selective and related to the property in question. Although the participants received instruction on the present perfect similar to other properties in their language learning, their performance was impoverished and their score very low compared to the native speakers on both tasks. This raises a number of questions in relation to the interaction between property and instruction.

Thirdly, learning setting played an ineffective role in the performance of the participants. In fact, the immersion and advanced EFL learners almost performed to the same level on all tested properties. For instance, it was predicted that the immersion group would outperform the EFL learners on the present perfect. An academic writing setting provided the appropriate context for present perfect to be noticed and utilised, hence, driving reassembly and restructuring (Lardiere 2012). Nevertheless, a similar performance was observed.

In summary, the results from the present study do not indicate a learning setting advantage. Both groups of learners performed and acted almost similarly on a number of tested properties. However, the results also provide unclear and conflicting conclusions as to whether explicit instruction drives implicit underlying knowledge (White 1990, 1991, 2003b; Schwartz & Gubala-Ryzak 1992; Rothman 2008). Instruction on the present perfect does not seem to benefit the L2 learners and their underlying knowledge seems to be unaffected. In fact, the impoverished performance is indeed an indication that the present perfect is not actually implicated. However, other properties such as progressive morphology were implicated and established to native-like degree. This poses a number of questions as to whether the effect of instruction depends on the targeted property or typical instruction did not simply provide genuine cues for the present perfect to be implicated (White 2003b; Lardiere 2012). This confirms our conclusion that reassembly of the present perfect does not take place on the basis of explicit classroom input, but instead requires identifying, selecting,

and redistribution of the particular feature into L2-specific lexical items (Lardiere 2009b, 2012).

6.7 Summary

Overall results from the present study show that the aspectual distinction was easier to acquire and posed lesser difficulty for Saudi-Arabic learners of English. At the advanced level, they established target-like representations by accepting and rejecting the associated semantics. In particular, L2 interpretation was taken as a window for looking at the underlying interaction between interpretable and uninterpretable features (Déchaine & Manfredi 2000; Hawkins et al. 2008). Similarly, the results from the gap-filling task 1 provided further and complementary evidence for this knowledge. This indicates that aspectual morphology was indeed attainable and acquirable, since knowledge of use necessarily implies knowledge of the associated semantics (Bardovi-Harlig 1992). On the other hand, the temporal contrast posed prolonged difficulty for the participants, even at advanced level. While their ILG can associate the preterite form with *–ed,* it does not pre-empt the present perfect to be accepted in preterite contexts. Furthermore, the results from the gap-filling task 2 revealed that it also does not pre-empt using the preterite form in present perfect contexts. In general, therefore, it seems that the temporal distinction was delayed, which can be considered as a case of persistent divergence from native-like representations. It was argued that the nature of L1 feature organisation, ambiguity of L2 input, and the computation of contextual information made the learning task more difficult compared to the progressive morphology (Slabakova 2009; Lardiere 2012). Taken together, the results suggest that difficulty with the present perfect might take longer to be acquired, if not at all. Crucially, this difficulty appears to be existent and persistent irrespective of learning context or proficiency level. L2 learners who were immersed in an academic English-speaking

context and received English language courses upon their arrival in the UK performed

similarly to EFL classroom learners who received only restricted formal instruction.

Theoretical and Pedagogical Implications

7.1 Introduction

This chapter will discuss the results at the *macro* level with respect to the theoretical and pedagogical debate. It is going to draw implications from the results with regard to the predictions of SLA hypotheses. Furthermore, it is going to enhance the practical side of SLA by shedding more light on the effect of L2 instruction. Therefore, the discussion will be in two parts: theoretical implications; pedagogical implications.

The first part (7.2) is going to discuss the predictions and predictive of SLA hypotheses to explain the reasons for target-like and deviant-like performance. Given the light of competing hypotheses, the goal of the present study was to examine how target syntactic representations are constructed from two indicative windows (see also Slabakova 2003): semantic interpretations and functional morphology suppliance. Thus, the discussion will focus on the explanatory and predictive power of these hypotheses in terms of how each one can account for, explain or predict the observed performance from both windows.

The second part (second 7.3) is going to enhance the discussion about the precise role of classroom input to guarantee target-like performance. In particular, it is going to attempt to build bridges between the findings of generative SLA and the explicit teaching and practicing of grammar in the classroom (Slabakova 2008). Finally, the chapter will discuss some limitations of the present study and propose some suggestions for future research (section7.4).

7.2 Theoretical Implications

The main goal of the present study was to investigate the acquisition of aspectual and temporal distinctions in L2 acquisition. In specific terms, can L2 learners establish target-like representations for aspectual and temporal distinctions? The learning task is, then, not only the acquisition of the tense and aspect inflections but also assigning target-like semantic values. In fact, the investigation of what types of meanings L2 learners assign to functional morphology can be taken as a window into their underlying representations (Hawkins et al. 2008). In other words, L2 interpretation is a window into L2 syntax that L2 learners construct in their ILG (Slabakova 2008). In this respect, two competing views in the generative paradigm were reviewed: the full functional view, and the impaired functional view. In addition, there was another view reviewed outside the generative paradigm "the Aspect Hypothesis".

The "Aspect Hypothesis" restricts its predictive power to the lexical aspect level (see section 4.3.1). It assumes that the suppliance of tense and aspect morphology is influenced by the lexical semantic properties of the verb phrase. However, there are theoretical issues concerning its predictions. First of all, it does not presuppose the existence of abstract categories such TP or AspP but its primary focus is given instead to verbal morphology (Costello & Shirai 2011; Bardovi-Harlig 2000). Furthermore, it does not take the effects of L1 grammar seriously but places more emphasis on the universal semantic aspects of tense-aspect morphology (Lardiere 2003). Nevertheless, the main argument is that tense-aspect morphology is initially influenced by the universal semantic properties of the lexical aspect. Crucially, it implies that this form-meaning association reflects learners' lack of target-like competence. For instance, if L2 learners restrict their use of the progressive *-ing* to only activity verbs, this reflects deviant performance from the native speakers' grammar.

To examine the predictive and explanatory power of the "Aspect Hypothesis", I will mainly consider the intermediate group (the lower group). In the gap-filling task 1, the intermediate group supplied present progressive marking of around 52 % (see Figure 5.14). When this rate was broken down by lexical aspect, it was revealed that it was more likely to be supplied with durative predicates (67%) than with achievement and stative verbs (41%, 48% respectively). However, this performance was observed in the native speakers and the advanced groups as well. Since the "Aspect Hypothesis" assumes that achievement verbs are predominantly associated with perfective marking at lower stages of development, the examination of other forms used in the progressive contexts did not reveal any significance of perfective marking but did reveal a similar performance between the native speakers and the intermediate group (see Table 5.13). In other words, the intermediate group did not produce or associate the perfective excessively with achievement verbs, the past produced around 14%. However, there was a difference between the native speakers and the intermediate group in the present tense. The intermediate group produced the present tense around 22.5% while the native speakers produced around 3%. This performance can be traced back to the L1 grammar. If intermediate learners are producing tense-aspect morphology based on the lexical property of the verb, we would expect a higher suppliance of the perfective, especially with achievement verbs. Similarly, in the present tense contexts, the past marking was rarely supplied (around 2%). Furthermore, in the past progressive contexts, the intermediate group supplied the progressive morphology with durative predicates 60% and statives 57%, but there was a difficulty with achievement at 31% (see Table 5.16). However, a closer inspection revealed that this difficulty was attributed to the design and observed in the native speakers as well. Thus, this difficulty or mis-interpretation in the design resulted in past morphology suppliance. However, there was no difference between the native speakers and the intermediate group in supplying the past morphology (18%, 20% respectively). Therefore, it

seems that aspectual morphology was not produced based on the lexical properties of the verb phrase. The observed performance or distribution is attested in the native speakers' performance as well but with different numerical rates. This numerical difference reflects a restructuring process towards target-like performance. Therefore, the explanatory power of the "Aspect Hypothesis" cannot fully explain the observed performance in the gap-filling task 1 and the intermediate participants are already making the distinction.

In gap-filling task 2, the prediction was that achievement verbs are inherently more compatible with perfective marking (Comrie 1985; Li & Shirai 2000) than other verbs. The descriptive statistics revealed that the intermediate learners produced the past morphology almost similarly on all verbs: durative 58%, stative 69%, and achievement 58% (see Table 5.20). Contrary to the predictions of the "Aspect Hypothesis", it was the advanced learners not the intermediate learners who demonstrated a statistical preference for supplying preterite marking more with achievement verbs. The advanced learners (EFL and immersion) were more likely to supply the preterite marking when the verb involved was an achievement type. It predicts that learners at earlier stages will therefore display this sort of performance, not advanced learners (Andersen & Shirai 1996; Shirai & Andersen 1995; Bardovi-Harlig 2000, 2002,1999). In fact, it assumes that target-like performance is attainable at the later stages of acquisition (see Table 4.1). As the learner gets more input, target-like use is incrementally established (Andersen & Shirai 1996; Bardovi-Harlig 1999). However, the present perfect posed prolonged difficulty for the Saudi speakers. The intermediate group produced the present perfect morphology of 31.5%, which was the same level as the advanced EFL 25% and the immersion group 42%. In fact, this is really puzzling for the "Aspect Hypothesis", that is why immersion learners after a number of years of immersion in an English-speaking country were not producing the present perfect morphology to the target-like level. One

explanation of this deviant-like performance can be attributed to the input. However, it is the preterite morphology that is being significantly produced instead of the present perfect morphology in these contexts, and more than any other forms: immersion 40%, advanced EFL 58%, intermediate EFL 35% (see Table 5.21). The observed performance can be attributed to L1 grammar. Crucially, since the role of L1 is being overlooked, it is unclear how the "Aspect Hypothesis" will explain the observed performance. The obligatory contexts in the gap-filling task 2 demonstrated not only what L2 learners could do, but also what they did (the deviant-like performance). The inability to produce the present perfect morphology can be relatively explained with respect to L2 input. However, the high suppliance of the preterite morphology is not predicted over other forms if the role of L1 grammar is not taken seriously. Thus, the hypothesis failed to predict such performance in both cases.

The discussion was centred on the production data because the hypothesis makes its primary claims on the production side. However, one theoretical caveat is that the intermediate learners may already have moved beyond the critical stage for the predictive power of the "Aspect Hypothesis". It assumes that at earlier stages of development, L2 learners are inclined to use verbal morphology to mark the inherent situational aspect of the verb (Shirai & Andersen 1995; Andersen & Shirai 1996; Salaberry 2008). However, this probably means that data from intermediate level may be futile with regard to the emergence of verbal morphology in lexical classes because the hypothesis is no longer active at a later stage and the intermediate participants are already making the distinction. However, looking back at the literature, in particular at Bardovi-Harlig & Reynolds (1995) – reviewed in Chapter 3 – it seems that these intermediate learners probably fall within the scope of the predictions of the hypothesis in relation to the investigation of the spread of the verbal morphology (Salaberry 2008). Compared with the participants from Bardovi-Harlig & Reynolds (1995), the

intermediate group in the present study are obviously lower than the 6–5th level and probably fall within the 2–3 level (see Table 3.3). The findings show that the intermediate participants are already making the distinction and verbal morphology spreads to all lexical classes. In summary, the predictive and explanatory power of the "Aspect Hypothesis" failed to explain or predict the observed performance in the present study. We therefore need to find a way of explaining the reasons for the deviant-like and target-like performance apart from the "Aspect Hypothesis".

Within the generative paradigm, the impaired functional view in its newest version "Interpretability Hypothesis" restricts its explanatory and predictive power to the role of uninterpretable features in L2 acquisition (Hawkins et al. 2008; Tsimpli & Dimitrakopoulou 2007; Hawkins & Hattori 2006). It assumes that the reasons for deviant-like performance are attributable to the unavailability of uninterpretable features in L2 acquisition whereas the interpretable features remain accessible. Therefore, we will restrict the discussion to this claim and attempt to examine its predictive and explanatory power (see Table 4.1).

In the case of the aspectual distinction, thematic verbs in L1 Arabic have a strong uninterpretable feature, unlike the weak uninterpretable feature in English. However, the hypothesis does not make predictions with regard to resetting of the feature strength in L2. We will assume that the failure to reset this feature constitutes evidence supporting the predictive power. In other words, if the learners overgeneralize the habitual and progressive interpretations to simple present forms, this can be seen as a predicted failure to reset the feature strength (see section 4.3.3). Furthermore, it is also predicted that L2 learners will not be able to establish the strong uninterpretable features on the raising *be* auxiliary to assign a progressive interpretation (Hawkins et al. 2008). The primary claim is that uninterpretable features are the locus of persistent difficulty and a potential reason for deviant-like

performance in L2 acquisition, even at highly advanced stages of development (Hawkins & Liszka 2003). Following Déchaine & Manfredi (2000) and Hawkins et al. (2008), learners need to recognize the interaction between interpretable and uninterpretable features to arrive at target-like representations. Therefore, the discussion will centre on the advanced levels and the uninterpretable features.

The results in the acceptability judgment task 1 indicated that the advanced groups (immersion and EFL) performed the same as the native speakers in the habitual and progressive interpretations. In particular, they restricted *be+v-ing* forms to a progressive interpretation and did not overgeneralise the form to habitual interpretation, contra Hawkins et al. (2008). In addition, they assigned a habitual interpretation to the *v-s* form and did not overgeneralize the form to have a progressive interpretation. If the predictions of the "Interpretability Hypothesis" hold true, it is expected that the semantic effects would then cause problems for Saudi speakers (see Table 4.1). However, the results demonstrated a different scenario with the habitual/progressive interpretation posing little difficulty in their acquisition. Furthermore, supplementary evidence was obtained from the production data in gap-filling task 1. It was assumed that the target-like suppliance reflects, by implication, mastery of the form in question. The results indicate that the advanced groups produced the progressive marking and the simple present form to the target-like level (around 69%, 90% respectively). The results, when combined, provide two sides of the same coin, with the advanced learners having established the target-like representations involving uninterpretable features contra Hawkins & Hattori (2006), Tsimpli & Dimitrakopoulou (2007), and Hawkins & Liszka (2003). Thus, the predictive power of the "Interpretability Hypothesis" failed to account for the target-like performance displayed by the advanced groups. The advanced

learners seemed to establish the uninterpretable feature on raising *be* and reset the feature strength on *v* in English (see Table 4.3).

However, the individual examination revealed that there were a few advanced learners who demonstrated optionality in performance. Nevertheless, it was assumed this performance would eventually be overcome. Crucially, there is one methodological and theoretical issue in interpreting the data and the hypothesis. The hypothesis assumes that uninterpretable features are inaccessible in L2 acquisition (Hawkins & Hattori 2006). Does this mean total or absolute inaccessibility for the whole L2 population? If one learner displays target-like performance, does this constitute counterevidence to the hypothesis' predictions? For instance, if a Chinese speaker (a language that lacks [*u*past]) produces the past morphology in English to the target-like level, does this provide counter evidence to the hypothesis? This is a methodological issue not being clearly addressed or stated in L2 literature of the "Interpretability Hypothesis".[116] However, if the answer is "no" or "yes", the majority of the advanced groups performed equally to the native speakers. Therefore, the hypotheses failed to account for and predict this target-like performance.

On the other hand, in the case of the temporal distinction, it is predicted that since the morphological form *have* carries an interpretable feature, it should be learnable and attainable under the assumptions of the hypothesis (see Table 4.5). The results from both tasks (acceptability and gap-filling) indicate that the present perfect posed prolonged difficulty in Saudi-Arabic speakers' acquisition. The advanced groups performed equally to the intermediate group and statistically different from the native speakers in both tasks. For instance, the advanced groups produced the present perfect around 33.5% similar to the

---

[116] The researcher is not aware of any version of the "Interpretability Hypothesis" where a statement about the L2 population and accessibility to uninterpretable features is clearly provided. For example, Hawkins & Hattori (2006) pointed out that the only difference between a native grammar and ILG for an adult learner is the availability of an uninterpretable feature. In this assertion, it is unclear what constitutes counterevidence here.

intermediate group 31.5% (see Figure 5.18). This demonstrated persistent difficulty and divergence from target-like performance. This difficulty is not fully accounted for by the explanatory power of the hypothesis. The [perf] feature is already activated in L1 grammar and associated with an interpretable feature. Therefore, how can the hypothesis explain the observed difficulty if the feature is already present in L1 and it is a semantically interpretable one? Then, the explanation should be outside the primary argument of the hypothesis. The hypothesis should consider the learning conditions in which a learner is learning will affect how easily or difficult a feature will be to acquire. The learning conditions such as L1 and L2 input might all conspire to delay the learning of the feature. Crucially, the results revealed that preterite marking is largely substituted for the present perfect semantics in their ILG (average of 43% for all groups). This resembles what is observed in L1, whereby the perfective form can encode both meanings. In other words, the results revealed that their ILG associated the preterite marking with past events, but it also did not pre-empt the preterite marking to be accepted and used in present perfect semantics. It can be equated with perfect semantics as in L1 grammar. This shows that the problem does not arise from accessibility to the feature but in recognising the morphological form *have* and its appropriate learning conditions. Hence, it should seek an explanation related to this problem of recognizing the morphological form. On one hand, the hypothesis presupposes a deterministic role for L1 grammar on L2 representations. On the other hand, the hypothesis does not provide clear statements about how L2 learners come to recognise a certain feature or the learning conditions. In other words, it does not clarify the process of interaction between L1 representations and L2 input. Rather, it restricts its theoretical and predictive assumptions to the featural level. However, what if we take the position that the hypothesis assumes an effective role of L2 input in recognising the feature in question? Then, the observed difficulty can be partially accounted for because it was already assumed that L2 input does not provide

positive evidence for the association between the morphological form *have* and the interpretable feature [perf] (Hawkins & Liszka 2003). In summary, it seems that the predictive and explanatory power of the hypothesis failed to predict the target-like or fully explain the deviant-like performance observed in the present study.

So far, it has been shown that the predictive and explanatory power of the "Aspect Hypothesis" and "Interpretability Hypothesis" were not supported. They do not fully explain the acquisition of English tense-aspect morphology and its semantic consequences by Saudi speakers. The explanation should address the role of L1 grammar and the role of L2 input combined together to account for the observed performance. The full functional view offers such a theoretical explanation. Under this umbrella, the "Feature Re-assembly" is proposed to account for the performance by Saudi-Arabic speakers. The hypothesis assumes that successful acquisition of L2 is determined by reassembling L2 features which may or may not be activated in L1 grammar into new lexical items or morphological forms (Lardiere 2009b). It assumes that target-like performance is incrementally obtainable and that deviant-like performance is due to the failure to figure out how a feature is reassembled or realised in L2 acquisition (Lardiere 2008,2012). In other words, it presupposes a cognitive process towards the target-like performance based on feature selection and feature assembly. L2 learners need to cognitively figure out how to reorganize the features (which may or may not be selected in L1) into new lexical or morphological forms, and also to recognise how the features are realised in L2 (Lardiere 2007a). However, this is different from the "Interpretability Hypothesis" in that it does not assume that selection is severely restricted and problems might arise from uninterpretable or interpretable features (Lardiere 2012). In fact, the process of reassembly might be delayed or obscured by L1 grammar or evidence in L2 input (see Table 4.1). Hence, the hypothesis assumes an effective role of L2 input and the

L1 feature system (grammar). The discussion will focus on this primary proposal and seriously examine its predictive and explanatory power in the present study. It will proceed from the intermediate group to the advanced groups to illuminate the restructuring and reassembly process.

In the case of aspectual distinction, English provides robust evidence for the distinction to be noted. Cues are present in the primary linguistic data. There is positive evidence for the target features in the linguistic input that possibly brings about grammar change. For instance, the distribution of raising *be* with negation and adverb placement provides positive evidence that *be* raises to TP. Furthermore, it provides positive evidence to trigger the appropriate feature value for the T-vP configuration including negatives, questions, and adverb placement. Therefore, the assumption is that advanced learners should arrive at the appropriate representations for the aspectual distinction. The results, from both tasks, indicate that the intermediate group fluctuated between both forms although they showed a strong preference for the target-like option. On the contrary, the advanced groups performed as the native speakers did, establishing the target-like interpretations with respect to aspectual morphology. The results actually depict the reassembly process from the intermediate to the advanced level and how target-like performance is incrementally obtained with the increasing level. Contra the "Interpretability Hypothesis", the hypothesis does not presuppose a restriction on the establishment of features. Hence, the results are in accordance with the predictions of the hypothesis (see Tabl3 4.3). For example, the advanced L2 learners managed to reassemble the [prog] feature and restrict its use and interpretation to progressive contexts. Therefore, the predictive power of the hypothesis seems to account for the results, not only at the advanced level but also at the intermediate one.

In the case of the temporal distinction, the hypothesis predicts that the learning is going to be harder (see Slabakova 2009). The Saudi speakers need to reassemble the [perf] feature that is already existent in their L1 grammar into a new lexical item *have*. The feature is encoded extra-linguistically in L1 while it is encoded linguistically in L2. Moreover, the same form in L1 can encode both meanings: preterite and present perfect semantics. Therefore, it predicts a difficulty, although target-like is assumed. The results reveal that Saudi speakers associated the preterite form *-ed* with past tense events while they encountered difficulty in associating *have* with present perfect contexts. The difficulty was observed at the intermediate level and persisted to the advanced levels. So, how can the hypothesis account for this difficulty within its primary principles? In fact, it attributes difficulty or deviant-like performance to the inability to recognise and reassemble the feature in question. This inability can be caused by L1 grammar, L2 input, or combined (see Table 4.5). The analysis of other forms used in the present perfect contexts revealed a significant suppliance of the preterite form by all groups (average of 43% for all of them). This resembles the use of the perfective form in L1 Arabic. It can encode both semantics. In other words, L1 grammar plays an effective role in obscuring the reassembly process. Furthermore, it was discussed earlier that sometimes L2 input does not provide a clear distinction between the preterite and the present perfect. The preterite can sometimes substitute the present perfect in some contexts. Therefore, L2 input makes the acquisition task harder. L2 learners need not only to spot the morphological form but also to figure out the appropriate L2 conditioning environment (Lardiere 2012). When combined, these factors made the acquisition task more difficult compared with the aspectual morphology. As Gabriele (2005) pointed out, to unlearn an interpretation of a grammatical sentence, the learner must observe that the occurring extralinguistic situation refutes the hypothetical interpretations constructed by the learner with respect to the sentence being heard (cited in Slabakova 2008:167). Therefore, L2 input does not seem to provide

sophisticated linguistic input in the respect of raising the learners' awareness and extending beyond L1 influence (this is going to be elaborated upon in the next section). Therefore, the predictive and explanatory power of the hypothesis seem to make the appropriate predictions and explanations with regard the target-like and deviant-like performance observed in the present study.

However, there is one theoretical issue regarding the hypothesis and the observed difficulty. The hypothesis assumes that target-like is eventually obtainable. The immersion learners are indistinguishable from the native speakers when assessed by an independent measure of proficiency. Moreover, for a number of years (range: 4 to 8), they have been immersed in an academic English-speaking context. Yet, they performed like the intermediate EFL group. The hypothesis predicts difficulty but it does not inform us when this difficulty will actually be overcome or how long it is going to last. This is similar to what is reported in Lardiere (1998b,1998a) with *Patty.* She was immersed in an English-speaking context for a long time but her past morphology is still impoverished, at around 34%, even though English provides robust evidence for past morphology. Are the immersion learners in the present going to be the same as *Patty?* There is no obvious progress (even slightly) in their performance from the intermediate level. Recently, Lardiere (2007b) attributed the problem of *Patty* to difficulty of remapping between morphosyntactic, semantic, and discourse-related features in L1 to different phonological exponents in L2 (see Hawkins 2009: 230). Certainly, the L2 learners in the present study need to reassemble and remap the discourse-related feature activated in L1 [perf] into a new lexical item *have*. However, English provides robust evidence for past morphology in the case of *Patty,* whereas it is less clear and robust in the case of the present perfect. Nevertheless, these learners were instructed about the present perfect tense although

the results suggest that this type of instruction is ineffective in this respect. Thus, the next section considers the pedagogical implications derived from the study.

7.3 Pedagogical Implications

This section is going to discuss the pedagogical implications that can be derived from the present study. Slabakova (2008:280) stated "It is fairly common to assert that the generative approach to L2 acquisition does not really have any predictions to make about teaching a language". There is a clear gap in the L2 literature between the generative paradigm and language teaching, therefore, Slabakova in her "bottleneck proposal" urges, therefore, generative SLA researchers to incorporate classroom instruction into their study design in order to gain insightful and practical implications and ultimately fill this gap.[117] Therefore, the following sub-section will try to build bridges between the obtained results and predictions for instructional practice.

7.3.1   How do the findings inform us about language teaching?

This subsection attempts to make instructional predictions for language learning and language teachers. This contribution can help to bridge the gap between the findings from theoretical SLA research and actual language teaching.

The first observation is that both L2 groups (immersion vs. EFL) were distinctly and categorically different. The immersion group contained a number of postgraduate university students, with L2 being used naturalistically in academic settings. On the other hand, EFL groups are typically characterised by restricted exposure to L2. However, while the input between both populations is quite different, the findings seem to suggest that learner development is not necessarily diverse. The developmental trend reported in both groups seems to be quite similar and the input factor has little impact on the course of learner

---

[117] For more discussion on this point see Slabakova (2008) Chapter 8 or see http://www.nissll.org.uk/.

development (Hawkins 2001; Lozano 2014). This builds on the previous findings obtained from early morpheme studies or German word order (Pienemann 1989). The findings in the present study suggest that the development of tense and aspect marking in English by Saudi-Arabic speakers is homogeneous and independent from the learning context. Therefore, being in an English-speaking country does not necessarily imply the notion of *better* learning in the tense and aspect systems. Thus, the implication for English teaching is that immersion and EFL learners go through the same developmental stages with respect to temporal and aspectual systems which are more important and effective at the communicative level (Kharma & Hajjaj 1997). Language teachers can be armed with this finding when teaching and observing the development of their students (Lozano 2014). The implication for teaching and assessment is therefore that learners inevitably follow certain progressive stages and different exposure conditions to L2 English do not *significantly* change this route of development (see also Bailey et al. 1974; Pienemann 1989).

The second implication actually builds on the first. It refers to the observed failure by all groups to establish some structures that are repeatedly taught and instructed in language teaching. The findings particularly indicate that the present perfect structure poses prolonged difficulty even at the advanced levels. Thus, the implication for teaching and assessment is that the present perfect is problematic for Saudi-Arabic speakers, although they receive input and instruction about it. For language teachers, they need to bear in mind that this structure requires careful and special treatment. On the other hand, progressive-present distinction seems to be easily obtained from the early stages of development, posing little difficulty, regardless of learning context. Language teachers need to know the areas where difficulty might emerge, as well as areas where development proceeds with ease. This is what is required inside the classrooms; the knowledge of where to focus and drill more, and where

acquisition might come easily (Slabakova 2008). In other words, teachers can consider and focus on teaching structures that seem problematic, but should take into account the empirical fact that what is taught does not necessarily lead to immediate acquisition (see Ellis 2008,2005). Therefore, the findings can contribute more pedagogically by informing us about why certain properties are acquired with ease while others are only acquired with a lot of difficulty.

These two observations can inform language teachers about learners' development and L2 difficulty. This can enable them to draw the distinction between "input", "development", and "difficulty" (Hawkins 2001; Bailey et al. 1974; Pienemann 1989; Lozano 2014). Surely, these contributions will also help them to think about how to speed the acquisition process, how to enhance the input, and where to focus and practice more? By doing so, the gap between theoretical SLA research and practical language teaching is filled and bridged, by providing pedagogical interventions including teacher training and specific classroom procedures such as assessment.

7.4 Limitations of the Study and Future Areas of Research

One limitation of the present study to be improved for future research is to include other L1 groups such as Spanish and Chinese. This inclusion will provide cross-linguistic evidence for the development of aspectual and temporal morphosyntax. Another aspect of the methodology to be considered in future research is the online processing of tense-aspect violations. This will add more careful control of possible cues from which the participants determine the target-like option. Furthermore, comparing the performance on traditional tasks and online tasks to examine whether learners can access this knowledge during real-time processing is another area for future research. This comparison can show whether learners who seem native-like in offline tasks have an implicit knowledge of tense-aspect

representation (for a similar study see Roberts & Liszka (2013)). This question opens the discussion for a crucial scientific inquiry as to whether the offline knowledge is really implicated in real-time processing (Hulstijn 2007).

On the pedagogical side, we can think of the recommendation given to tackle the difficulty of the present perfect as one possibility to be explored and investigated. Pre-test vs. Post-test design and enhanced input intervention could reveal the effect of such treatment. While one group receives the traditional instruction the other group receives the enhanced and tailored input. If positive results are observed, the effect can then be attributed to the pedagogical intervention. This design could reveal and test the effectiveness of the suggested proposals by Slabakova (2008) and Gabriele (2005), where the practice should focus on uncovering the syntactic and semantic effects. This future research will need to address the observed difficulty with the present perfect construction by Saudi speakers and also show that the theoretical basis of the practical application is on the right track. Further research questions can be listed as:

1. Will L2 learners from different L1s demonstrate different degrees of difficulty if the feature in question is encoded differently in their L1?

2. Can the learners who demonstrate aspectual and temporal contrasts in offline tasks access this knowledge during real-time processing?

3. Can tailored and enhanced input allow Saudi speakers to overcome the persistent difficulty with the present perfect structure?

4. Why is not always what is taught not immediately acquired? and what are the implications for assessment and teacher training?

The last two questions can promote our understanding of the effect of tailored input and instructions regarding the acquisition. It would be more insightful if positive effects were observed. It can potentially bridge the gap between pedagogical practice and theoretical SLA and inform us how to enhance language development to overcome problematic areas in a pedagogical context.

7.5 Summary

The chapter summarises the theoretical and pedagogical implications that can be derived from the findings. The findings at the macro level reveal that uninterpretable features are retrievable from the universal inventory and the role of lexical aspect in the aspectual and temporal development is limited. However, as we have seen, the deviant-like performance can be caused by multiple factors such as L1 or L2 input together (although not entirely). On the practical side, the study has made recommendations for classroom input and teaching. The evidence presented so far shows that repeated explicit instruction about the present perfect does not guarantee target-like acquisition. Finally, two observations for language teachers were presented with respect to tense-aspect development. The first observation was related to the route of development and learning context while the second was about teaching. These two observations are presented as a humble step to bridge the gap between theoretical SLA research and actual language teaching.

Summary: Main Findings and Conclusions

The main goal of this thesis has been to investigate the questions listed in Chapter 1 in section 1.7 and repeated below:

1. What is the effect of L1 (Saudi Arabic) tense-aspect system on the acquisition of the interpretation of tense and aspect in L2 English?

2. Will lexical type (predicate type) have an effect on the acquisition of the interpretation of tense and aspect in L2 English?

3. Is there a differential behaviour between comprehension and production tasks of L2 temporal and aspectual forms? Or is there a relationship between knowledge of written production and underlying knowledge?

4. Do L2 classroom learners (EFL) and immersion learners perform comparably regarding the acquisition of the interpretation of tense and aspect in L2 English?

The concern was to examine the effect of the first language on the semantic interpretations encoded in the grammatical markers in L2. The investigation was motivated by the assumption that what meanings L2 learners attribute to certain constructions in their L2 can be taken as an indication of the their underlying representation (Hawkins et al. 2008; Slabakova 2003; Montrul & Slabakova 2002; Yamazaki-Hasegawa 2009, among others). Moreover, it was also necessary to look at the underlying representation from a different angle. This was motivated by the assumption that the suppliance of the target form in the obligatory context demonstrates, by implication, the native-like knowledge of that form (Bardovi-Harlig 1992; Gabriele 2005; Montrul & Slabakova 2002). The performance was examined across proficiency level, learning context, task type, and verbal predicate.

Summary

The results obtained from two different tasks (acceptability judgment and gap-filling tasks) indicated that the aspectual interpretations were acquired by Saudi speakers from intermediate stages of development to a native-like level (answer to 1). Crucially, their performance was not influenced by predicate type, learning context, or task type (answers to 2, 3, and 4). The results revealed a homogenous development sequence between the different learning groups. On the other hand, the target temporal distinction was unattainable. The Saudi speakers equated the present perfect with the preterite construction similar to what was observed in their L1 grammar (answer to 1). While they could associate the preterite interpretations to *v-ed*, they could not restructure their grammar and pre-empt allowing the preterite to appear in the present perfect contexts. Again, the results revealed a uniform developmental pattern with respect to the temporal distinction, and the performance was also not affected by proficiency level, learning context, task type, or predicate type (answers to 2-4).

The theoretical conclusions derived from these findings are that lexical aspect is less likely to predict the route of the aspectual and temporal interpretations at a later stage (answer to 2). The Saudi-Arabic learners of English already do not associate the target morphology to certain verb classes or make form-meaning associations based on the inherent properties of the verb phrase (contra Andersen & Shirai 1996). In addition, uninterpretable features are retrievable and learnable in L2 acquisition (contra to Hawkins & Hattori 2006; Hawkins et al. 2008). For example, the Saudi speakers were able to construct the uninterpretable feature on the raising be in English. However, the problem with preterite/present perfect does not seem to arise from the selection of a certain feature but from the reassembly of that feature into L2 language-specific morphological items, either free or bound (Lardiere 2012). The proposal by Lardiere of "feature re-assembly" was seriously examined and tested by the findings of the

present study. The proposal was assumed to be the best at explaining the discrepancy in the results between the aspectual and temporal distinction in English. The Saudi speakers had persistent difficulties with the present perfect construction because they were not able to reassemble the [perf] feature already present in their L1 grammar into the new lexical item *have* in English (answer to 1).

In relation to the pedagogical conclusions, the findings suggest that Saudi Arabic learners of English go through similar developmental stages when learning tense and aspect morphology in English. The performance on both tasks demonstrates that the learners follow the same developmental route of acquisition, even though the rate of acquisition between groups is different (answer to 4). This conclusion adds to the previous surprising and counterintuitive findings from theoretical SLA research (Bailey et al. 1974; Pienemann 1989; Lozano 2014). In addition, the findings revealed that the learners failed to acquire some structures that are repeatedly taught in the classroom. The findings suggest that what is taught is not therefore necessarily acquired (Pienemann 1989). Based on these conclusions, some recommendations and pedagogical interventions were suggested for teaching and instructional practice.

The overall conclusion is that L1 effects can be crucial in the acquisition of functional morphology, and establishing the target-like interpretation, especially if other factors such as input are in play. In addition, what seems to be clear is that explicit instruction does not guarantee grammar change or what is taught does not necessarily lead to acquisition.

Appendix

(A)

Personal details:

- Date of birth (dd/mm/yyyy):……….…   . Gender: **M F**
- What is (are) your native language(s)?………..………………
- Do you consider your dialect in K.S.A as Najdi?   **Yes** ☐   **No** ☐
- How old were you when you started to learn English? ....
- Please tick any of the following that apply to you:

  ☐ I had English lessons at school in Saudi Arabia.

  ☐ I had English lessons at university in Saudi Arabia.

  ☐ I have attended English courses in an English-speaking country

     (The period   year .... month .... day ....)

  ☐ I lived in an English-speaking country as a child (from age .. until age ….)

- How many years (or months) have you lived in England, or any other English-speaking country?

  ....

- Have you taken IELTS or TOEFL ? **Yes** ☐   **No** ☐

    If *Yes* what is your last score? ....

    And when it was?...

- What is your study right now?
    ☐ PhD ☐ Master degree ☐ Bachelor degree ☐ English course

(B)

Cloze Test

In the following passage, some of the words have been replaced by *spaces*, Read the complete text carefully in order to understand it, and please *__fill in the blanks__*. Each blank must have one and *Only One Word*.

Joe came home from work on Friday. It was payday, but he wasn't _____ excited about it. He knew that _____ he sat down and paid his _____ and set aside money for groceries, _____ for the car and a small _____ in his saving account, there wasn't _____ _____much left over for a good _____.

He thought about going out for _____ at his favourite restaurant, but he _____ wasn't in the mood. He wandered _____ his apartment and ate a sandwich. _____ a while, he couldn't stop himself _____worrying about the money situation. Finally, _____ got into his car and started _____. He didn't have a destination in ___ _____, but he knew that he wanted _____ be far away from the city _____ he lived.

He drove onto a quiet country _____. The country sights made him feel _____.His mind wandered as he drove_____ small farms and he began to _____ living on his own piece of _____ and becoming self-sufficient. It had always _____ a dream of his, but he _____ never done anything to make it _____ reality. Even as he was thinking,_____ logical side was scoffing at his _____ imaginings. He debated the advantages and _____ of living in the country and _____ his own food. He imagined his _____ equipped with a solar energy panel_____ the roof to heat the house _____ winter and power a water heater. _____envisioned fields of vegetables for canning _____ preserving to last through the winter. _____ the crops had a good yield,_____ he could sell the surplus and _____ some farming equipment with the extra _____.

Suddenly, Joe stopped thinking and laughed _____ loud, 'I am really going to go _____ with all?'

(C)

Acceptability Judgment task 1

1. Habitual vs Progressive in the present tense
1.1. When the context favours the progressive:
1.1.1. Durative verbs:

By next Monday Jane has to read a book on economics, which consists of eight chapters. At the moment ....

she is reading the sixth chapter.

By next Monday Jane has to read a book on economics, which consists of eight chapters. At the moment ....

she reads the sixth chapter.

Justin is an adventure writer. I hope he can find a good publisher because ……….............
he is writing a book about his adventures in Tibet.

Justin is an adventure writer. I hope he can find a good publisher because ……….............
he writes a book about his adventures in Tibet.

Sam can't contact Julie at the moment. ..…………
she is apparently running along the beach.

#Sam can't contact Julie at the moment. ...……………

she apparently runs along the beach.

Can you phone me later ? I am busy because .....………..   I am writing to my mother.

Can you phone me later ? I am busy because ………..I write to my mother.

1.1.2. Achievement verbs :

Kate is on the train to New York because…………   she is coming to attend a conference.

Kate is on the train to New York because…………   she comes to attend a conference.

Kim has been seeing a specialist about her weight and eating habits. She goes to the gym every week and can see progress. ....Kim is losing weight.

Kim has been advised about her weight and eating habits. She goes to the gym evey week and can see a great progress. ....Kim loses weight.

Sarah is in her office at 7:11 am when she is supposed to be there at 9:15 am …………. she is starting work early today.

319

#Sarah is in her office at 7:11 am when she is supposed to be there at 9:15 am …………...she starts work early today.

Alice's husband finishes work at 5 pm. Alice is busy because she wants to get the dinner ready before her husband is back from work. It is now 5 pm, so .... he is coming back home.

Alice's husband finishes work at 5 pm. Aliceis busy because she wants to get the dinner ready before her husband is back from work. It is now 5 pm, so ....he comes back home.

1.1.3. Stative progressive:

Maria wants to improve her English right now, so to do this ....she is staying with an English host family at the moment.

Maria wants to improve her English right now, so to do this.........................she stays with an English host family at the moment.

Peter was really busy finishing the reports this morning, so at the moment ....he is having a break from work.

Peter was really busy finishing the reports this morning, so at the moment ....he has a break from work.

Can you see Anna? Yes, ...she is standing in the front of the bus stop.

#Can you see Anna? Yes, ...she stands in the front of the bus stop.

Jane rejected my plan to live with me because ....she is having second thoughts about moving abroad.

Jane rejected my plan to live with me because ....she has second thoughts about moving abroad.

1.2. When the context favours the habitual:

1.2.1. Durative verbs:

Whenever Lucy and Peter go to a restaurant, ...………. they order the same meal.

Whenever Lucy and Peter go to a restaurant, ...……….. They are ordering the same meal.

Satti is a film director in India. She is very busy because every year ………… she shoots 21 films.

Satti is a film director in India. She is very busy because every year ………….. she is shooting 21 films.

Bob is a big fan of old films. Whenever he is free, ……….. he watches old films on DVDs.

Bob is a big fan of old films. Whenever he is free, ………..he is watching old films on DVDs.

Twice every week, instead of taking his car, …………..Bob walks from his house to the station.

Twice every week, instead of taking his car, …………..Bob is walking from his house to the station.

1.2.2. Achievement verbs :

Lucy has been playing badminton for a long time. There is no doubt she is a good player. In fact, ...she wins every game she plays.

Lucy has been playing badminton for a long time. There is no doubt she is a good player. In fact, ... she is wining every game she plays.

David has to prepare a lunch box for his daughter before leaving for work. So every morning............... he gets up at five.

David has to prepare a lunch box for his daughter before leaving for work. So every morning............... he is getting up at five.

Jack is a good hat-maker, so every Sunday, ... he sells hats on a small stall in the market.

Jack is a good hat-maker, so every Sunday, ... he is selling hats on a small stall in the market.

Daniel wants to avoid rush hour. So every morning, ... he leaves home at five.

Daniel wants to avoid rush hour. So every morning, ... he is leaving home at five.

1.2.3. Stative verbs:

The group currently ………..consists of 21 people.

The group currently ………..is consisting of 21 people.

Marion has no desire to have a big, powerful car. ....She owns an old Nissan car.

Marion has no desire to have a big, powerful car. ....She is owning an old Nissan car.

Mrs Smith's restaurant is very popular for lots of reasons. For one thing, …......................the restaurant stands by a beautiful lake.

Mrs Smith's restaurant is very popular for lots of reasons. For one thing, …........................ the restaurant is standing by a beautiful lake.

Today is Tom's graduation. He hopes that his parents will come. ....He really wants his parents to attend his graduation.

Today is Tom's graduation. He hopes that his parents will come. ....   He is really wanting his parents to attend his graduation.

2. **Progressive in past tense**
   2.1. When the contexts favours the progressive (imperfective) in the past:

   2.1.1. Durative verbs :

This morning when the teacher arrived in class, ...   Mario was doing his homework.

This morning when the teacher arrived in class, ...Mario did his homework.

When the telephone rang , ...Barry was watching TV.

When the telephone rang , ...   Barry watched TV.

 I am sure that Daniel is not home yet. When I left the party, ...he was dancing.

I am sure that Daniel is not home yet. When I left the party, ...he danced.

I didn't hear the fire alarm because …….…...... I was watching TV.

I didn't hear the fire alarm because …….…......   I watched TV.

   2.1.2. Stative verbs:

  When you called me, ...I was having a bath.

When you called me, ...I had a bath.

During the London riots, ...I was living in Tottenham.

During the London riots, ...I lived in Tottenham.

 When I met Wayne Rooney , ………… he was staying in the Manchester Marriot hotel.

When I met Wayne Rooney,………… he stayed in the Manchester Marriot hotel.

When I saw him yesterday,………… he was standing at the stop waiting for the bus to come.

When I saw him yesterday, ……….he stood at the stop waiting for the bus to come

   2.1.3.   Achievement verbs:

 I was only just in time to buy bread yesterday evening. When I got to the bakery, …......................   it was closing.

I was only just in time to buy bread yesterday evening. When I got to the bakery, …......................it closed.

The plane exploded in mid-air while ....it was landing at the airport.

The plane exploded in mid-air while ....it landed at the airport.

 When the lifeboat arrived, ...waves were already crashing over the deck of the ship.

When the lifeboat arrived, ,................................... waves already crashed over the deck of the ship.

I cannot hand in my assignment today because they closed the library while ……   I was finishing my assignment.

I cannot hand in my assignment today because they closed the library while …… I finished my assignment.

(D)

Acceptability judgment task 2

1. Preterite /Present Perfect

1.1. When the context favours the preterite :

1.1.1. Durative verbs :

John Grisham is a fantastic writer, ...   he wrote the bestselling novel last year.

John Grisham is a fantastic writer, ...   he has written the bestselling novel last year.

At the last meeting, ……………………..   the chairman asked the employees to present their views.

#At the last meeting, ……………………..   the chairman has asked the employees to present their views.

When Peter was at school, ……………........   he played tennis for five years.

When Peter was at school, ……………........   he has played tennis for five years.

The cleaner was very slow today. It was about 12 o'clock by the time..……………........   she cleaned this room.

The cleaner was very slow today. It was about 12 o'clock by the time ……………........ she has cleaned this room.

1.1.2. Stative verbs :

Last year, the training course ……………..   lasted for two months.

Last year, the training course ……………..   has lasted for two months.

   I tried the cake to see how ....   it tasted.

I tried the cake to see how ....   it has tasted.

I hated my last job because..........................   it involved a lot of work.

I hated my last job because..........................   it has involved a lot of work.

At the last meeting with our boss, ...   I realized that we hold many different opinions.

At the last meeting with our boss, ...   I have realized that we have held many different opinions.

1.1.3. Achievement verbs:

When I paid the registration fees, ... I received the confirmation email immediately.

When I paid the registration fees, ... I have received the confirmation email immediately.

When we were leaving the house, ... it suddenly began to rain.

#When we were leaving the house, ... it has suddenly begun to rain.

It is possible that, ... I left my keys in the office last night.

It is possible that, ... I have left my keys in the office last night.

An hour ago, …………………… the mixture turned bright yellow.

An hour ago, …………………… the mixture has turned bright yellow.

1.2. When the contexts favors present perfect:
1.2.1. Durative verbs :

We must get this pipe fixed, ... it has leaked for a while.

We must get this pipe fixed, ... it leaked for a while.

Do you know how many ……………………. ? people have walked on the moon.

Do you know how many ……………………. ? people walked on the moon.

We are still raising money for the scholarship drive. So far,
.... we have raised over $2,000

We are still raising money for the scholarship drive. So far, ... we raised over $2,000.

She is looking forward to retirement because .... she has worked as a doctor for the last 25 years.

She is looking forward to retirement because .... she worked as a doctor for the last 25 years.

1.2.2. Stative verbs :

Sylvia and Mary are old ladies now, but .... they have remained friends for all these years.

Sylvia and Mary are old ladies now, but .... they remained friends for all these years.

Mr. Baggins lives in the house next door. .... He has lived there for the past eight years.

Mr. Baggins lives in the house next door. .... He lived there for the past eight years.

325

This farm which I own .... has belonged to our family for centuries.

This farm which I own .... belonged to our family for centuries. The news is not a surprise for me, ... I have known about their plans to close down the department since last year.

The news is not a surprise for me, ... I knew about their plans to close down the department since last year.

1.2.3. Achievement verbs :

She feels great, ... she has lost three kilos since Christmas.

She feels great, ... she lost three kilos since Christmas.

Since the introduction of computers into everyday life, ... they have begun to take a great deal of our time.

#Since the introduction of computers into everyday life, ... they began to take a great deal of our time.

At the mid-year review ,the financial statement shows that......................... the company has lost $30 million to date.

#At the mid-year review , the financial statement shows that .... the company lost $30 million to date.

I could not recognize Jack when he entered the room, he looked totally different. .... He has lost so much weight.

#I could not recognize Jack when he entered the room, he looked totally different. .... He lost so much weight.

(E)

Gap-filling task -1

Instructions:

This is a ***fill-in- the blanks*** task. ***Read*** the sentences and ***fill in*** the blanks by using the verbs in ***parentheses***. You must provide the appropriate form of the verb. Please ***don't go back and change*** your answers, the research is interested in ***your first response.***

The first two have been filled in as an example.

Examples:

Ex .1 : I *......like....* (like) ice cream.

Ex.2: The kids *......are playing......* (play) in our backyard now.

1. This kid is going to be a genius. He……………………………. (love) mathematics and physics.
2. He studied hard for the final exam but failed. I think he ……………………………… …(deserve) to pass the exam
3. When the photo-finish appeared on the screen, Dan……………………….. (cross) the finish line
4. Oh Wow, I ……………………………..…. (enjoy) every bite of this delicious pizza.
5. My father cannot come to the phone now. He ………………………………. (talk) to the neighbour.
6. I ……………………………. (jog) in the park , when two squirrels crossed my path.
7. He will be sorry that he …………………….……… (miss) watching this game.
8. Cooper is a professional photographer. He is busy today because he ……………………………. (take) photos at a celebrity wedding.
9. The first class usually …………….………………….. (begin) at 9:00 o'clock.
10. Maria has come to the U.K to improve her English, so she ……………………….. (live) with a host family.
11. Jenny usually …………….……………. (cycle) to school, but today she will take the bus because it ………………….……………..(rain)
12. She is always very excited and …………………………………... (get up) very early.
13. He is a really good goalkeeper. Every time the ball comes near, he …………………….……………….. (catch) it.
14. The plane …………………………… (land) at the airport when one of its engines broke down in mid-air.

15. I can't continue watching the game anymore, our national
team …………………………………. (lose) it.

16. Professor Fitzpatrick is on temporary research leave from the department because
he…………………………………. (write) a new textbook.

17. I just managed to return my book to the library yesterday. When I arrived there,
it ……………………………. (close).

18. Yesterday, when I saw you, I …………………..…………….(stand) in the front of
the cinema waiting my friends to come.

19. I ……………………………. (send) the email when I arrived at work yesterday.

20. Joe …………………………………..(practice) with his father every weekend , but
Dennis does not play football very often.

21. You will not find Jerry home right now. He ………………….……………. (study) in
the library when I left.

22. Speaker A: I hear a noise!
Speaker B: Yes, someone ……………………………………….. (knock) at our door.

23. This young boy is really naughty. Look at him, he …………………………. (stand)
too close to the edge of the lake.

24. There is a bank in a nearby town. You …..……………………………. (need) to take the
bus to get there.

25. Unfortunately, Ken was unable to finish his portrait for the art competition.
He ………………………………….. (paint) a portrait of his family especially for that
competition.

26. The milk boiled over while I…………………..…………….(talk) on the phone.

27. I ………………………………(live) abroad in 1987, so I missed the general election.

28. At the same time as the party started, I ……………….…………….. (leave) home.

29. All the participants in this week's conference ………………………………… (stay)
in the central hotel where the conference is being held.

30. I remember when Nelson Mandala was released. I ………………………….. (live) in
London .

31. I think that Ahmed has bought his return ticket, so he will
probably ………………………….………… (leave) tomorrow.

32. Alexandra has a strong passion for history. Whenever she is free,
she………………………………… (read) about ancient civilizations.

33. I desperately want to see this film, but unfortunately only the out-of-town
cinema ……………………………… (show) it.

34. I think you need to phone the ambulance. Jack ………………………... (break) his
leg.

35. Kate's grandmother is very sick, and she was admitted to the hospital. The doctor says
she is in a serious condition. The grandmother ……………………………….. (die) at
the hospital.

36. I was really tired this morning even though I ………………………. (sit) on my
comfortable sofa all morning.

37. Betty is a very sociable person. She ………………………….(love) birthday
parties.

(F)

Reading Passage:

Instructions:

This is a ***fill-in-* *the blanks*** task. ***Read*** the passage and ***fill in*** the blanks by using the verbs in ***parentheses***. You must provide the appropriate form of the verb. You can ***use*** more than one word if necessary. Please ***don't go back and change*** your answers because the ***researcher*** is interested in ***your first response.***

*The **first blank** has been filled in **as an example**.*

HERE is the passage

DINOSAURS - *By David Keys*

Many species of animals and plants no longer   *exist*   (exist) on the earth. But sometimes animal and plant remains can be found buried in rocks. These are called fossils. Not every creature always _____ (survive) as a fossil. Many_____ (die out) completely and leave no trace of their existence. Unfortunately, because many creatures and plants _____ (disappear) since life began on earth without leaving any fossils, we will never know anything about them.

The study of fossils became established at the beginning of the Nineteenth Century. Before such studies _____ (begin), people _____ (think) that fossils could not have been alive at all. The most famous fossils of all are the dinosaurs. So far, scientists _____ (learn) that they became extinct millions of years ago, before our own species _____ (develop). Though little is known about the reasons behind their extinction, considerable information about their life in the past _____(emerge) from desert discoveries.

Since the 1980s, a team of Chinese and Canadian scientists _____ (work) in the Gobi desert. Throughout two decades of excavations there, they_____ (discover) several dinosaur colonies with a dozen babies. The discovered colonies belong to a type of dinosaur known as ankylosaur. Generally, the finds _____(consist of) a large number of eggs, the babies, some adults, and a group of embryos. In recent years, these excavations _____(help) scientists to know more about daily life in an ankylosaur colony. For example, they_____ (find) a fossil that shows an attack by a carnivorous dinosaur on the ankylosaur nest full of eggs. The fossilised killer is preserved lying on top of the egg-filled nest, and it seems that it_____ (die) as a result of a sand storm which _____ (bury) both the hunter and its victims. As a result of these findings, the scientists have recognized that fossils are important in depicting the daily life of dinosaurs.

Since the first findings, the researchers have studied eggs belonging to numerous dinosaur species. They claim that some of these excavations _____ (uncover) the strangest eggs. Ankylosaur eggs, for example, were neither round nor oval, but long and thin – around 180 centimetres long and 60 centimetres in diameter. Ongoing investigation of one extraordinary nest has yielded some clues about the laying of eggs in a spiral, resembling a pyramid. Currently, the team speculate that the female _____(dig) the nest with her back legs, and then _____(lay) pairs of eggs as she _____ (move) around it.

Also, throughout the last 10 years, the scientists _____(examine) the head and backbone of what seems to be the largest dinosaur ever found. From the remains discovered, scientists _____(be) able to calculate that the creature was 31 meters from head to tail, which is 10% longer than any other dinosaur found so far. The team _____ (believe) that it_____ (live) around 140 million years ago. Over the last few years, researchers _____ (realize) that the examination of one skeleton can help them to draw implications about the entire species.

A great deal of previous research in the last decades _____ (show) that dinosaurs _____ (have) comparatively large brains, mammal-style binocular vision, and more complex behaviour than previously thought. They were not, it seems, always the dumb giants they are normally portrayed as being.

Reference List

Adger, D., 2003. *Core syntax: a minimalist approach*, Oxford: Oxford University Press.

Al-thubaiti, K.A., 2010. Age Effects in a Minimal Input Setting on the Acquisition of English Morpho-Syntactic and Semantic Properties by Ll Speakers of Arabic. *Phd Thesis*, Essex University.

Andersen, R., 1989. La adquisicion de la morfologıa verbal [The acquisition of verb morphology]. *Linguistica*, 1, pp.90–142.

Andersen, R., 1991. Developmental sequences: the emergence of aspect marking in second language acquisition. In T. Huebner & C. A. Ferguson, eds. *Crosscurrents in second language acquisition and linguistic theories*. Amsterdam/Philadelphia : John Benjamins, pp. 305–324.

Andersen, R. & Shirai, Y., 1994. Discourse Motivations for Some Cognitive Acquisition Principles. *Studies in Second Language Acquisition*, 16(02), pp.133–156.

Andersen, R. & Shirai, Y., 1996. The primacy of Aspect in First and Second Language Acquisition: The Pidgin-Creole Connection. In W. C. Ritchie & T. K. Bhatia, eds. *Handbook of Second Language Acquisition*. San Diego, CA: Academic Press, pp. 527–570.

Antinucci, F. & Miller, R., 1976. How children talk about what happened. *Journal of Child Language*, 3(02), pp.167–189.

Aoun, J., Benmamoun, E. & Choueiri, L., 2010. *The Syntax of Arabic*, Cambridge : Cambridge University Press.

Bahloul, M., 1993. The Copula in Modern Standard Arabic (SA). In M. Eid & C. Holes, eds. *Perspectives on Arabic Linguistics*. Amsterdam: John Benjamins, pp. 209–230.

Bahloul, M., 2008. *Structure and Function of the Arabic Verb*, London: Routledge.

Bailey, N., Madden, C. & Krashen, S.., 1974. Is there a "Natural Sequence" in adult second language learning? *Language learning*, 24(2), pp.235–243.

Bakir, M., 1980. Aspects of clause structure in Arabic: a study of word order variation in literary Arabic. *Phd Thesis*, Indiana University.

Bardovi-Harlig, K., 1992. The relationship of form and meaning: A cross-sectional study of tense and aspect in the interlanguage of learners of English as a second language. *Applied Psycholinguistics*, 13(03), p.253.

Bardovi-Harlig, K., 1997. Another Piece of the Puzzle: The Emergence of the Present Perfect. *Language Learning*, 47(3), pp.375–422.

Bardovi-Harlig, K., 1999. From morpheme studies to temporal semantics. *Studies in Second Language Acquisition*, 21(3), pp.341–382.

Bardovi-Harlig, K., 2000. *Tense and aspect in second language acquisition: form, meaning, and use*, Oxford and Malden, MA: Blackwell Publishers.

Bardovi-Harlig, K., 2002. Analyzing aspect. In R. Salaberry & Y. Shirai, eds. *Tense-aspect morphology in L2 acquisition*. Amsterdam: John Benjamins Publishing, pp. 129–154.

Bardovi-Harlig, K. & Reynolds, D., 1995. The Role of Lexical Aspect in the Acquisition of Tense and Aspect. *TESOL Quarterly*, 29(1), pp.107–139.

Benmamoun, E., 1999. Arabic morphology: The central role of the imperfective. *Lingua*, 108(2-3), pp.175–201.

Benmamoun, E., 2000. *The Feature Structure of Functional Categories:A Comparative Study of Arabic Dialects*, New York: Oxford University Press.

Binnick, R., 1991. *Time and The Verb: A Guide To Tense And Aspect*, Oxford : Oxford University Press.

Birdsong, D., 1992. Ultimate attainment in Second language acquisition. *Language*, 68(4), pp.706–755.

Bley-Vroman, R., 1990. The Logical Problem of Foreign Language Learning *. *Linguistic Analysis*, 20(1).

Borer, H., 1994. The projection of arguments. In E. Benedicto & J. Runner, eds. *University of Massachusetts Occasional Papers in Linguistics 17*. Amherst, Mass : GLSA.

Bronckart, J.P. & Sinclair, H., 1973. Time, tense and aspect. *Cognition*, 2(1), pp.107–130.

Brown, J.D.., 1980. Relative merits of four methods for scoring cloze tests. *Modern Language Journal*, 64, pp.311 – 317.

Brown, R., 1973. *A first language*, Cambridge, MA: Harvard University Press.

Brustad, K., 2000. *The Syntax of Spoken Arabic: A Comparative Study of Moroccan, Egyptian, Syrian, and Kuwaiti Dialects*, Washington,D.C: Georgetown University Press.

Canale, M. & Swain, M., 1980. Theoretical bases of communicative approaches to second language teaching ans testing. *Applied Linguistics*, I(1), pp.1–47.

Choi, M.. & Lardiere, D., 2006. The interpretation of wh-in-situ in Korean second language acquisition. In A. Belletti et al., eds. *Language acquisition and development: Proceedings of GALA 2005*. Cambridge: Cambridge Scholars Press, pp. 125–135.

Chomsky, N., 1993. A Minimalist Program for Linguistics Theory. In K. Hale & S. . Keyser, eds. *The View from Building 20: Essays in Linguistics in Honour of Sylvain Bromberger*. Cambridge, Mass: MIT Press, pp. 1–52.

Chomsky, N., 1995. *The Minimalist Program*, Cambridge, MA: MIT Press.

Christensen, E., 2009. The Acquisition of Perfective and Imperfective Aspect: A Comparative Study of Arabic and Japanese Learners of English. *Kansas Working Papers in Linguistics*, 31, pp.1–21.

Chung, S. & Timberlake, A., 1985. Tense, aspect and mood. In T. Shopen, ed. *Language typology and syntactic description: Grammatical categories and the lexicon*. Cambridge : Cambridge University Press , pp. 202–258.

Clahsen, H. & Hong, U., 1995. Agreement and null subjects in German L2 development: new evidence from reaction-time experiments. *Second Language Research*, 11(1), pp.57–87.

Cohen, M., 1924. *Le Système verbal sémitique et l'expression du temps*, Paris: Ecole des langues orientales vivantes.

Collins, L., 2007. L1 differences and L2 similarities : teaching verb tenses in English. , 61(October), pp.295–303.

Comrie, B., 1976. *Aspect: an introduction to the study of verbal aspect and related problems*, Cambridge: Cambridge University Press.

Comrie, B., 1985. *Tense*, Cambridge : Cambridge University Press.

334

Coppieters, R., 1987. Competence Differences between Native and Near-Native Speakers. *Language*, 63(3), pp.544–573.

Costello, W. & Shirai, Y., 2011. The Aspect Hypothesis, defective tense, and obligatory contexts: Comments on Haznedar, 2007. *Second Language Research*, 27(4), pp.467–480.

Déchaine, R. & Manfredi, V., 2000. Interpreting null tense. *Colloquium on "The syntax of tense and aspect" Université de Paris*, 7.

Depraetere, I., 1995. On the necessity of distinguishing between (un)boundedness and (a)telicity. *Linguistics and Philosophy* , 18(1), pp.1–19.

Dowty, D., 1975. The Stative in the Progressive and Other Essence/Accicent Contrasts. *Linguistic Inquiry*, 6(4), pp.579–588.

Dowty, D., 1979. *Word, Meaning and Montague Grammar*, Dordrecht : Reidel.

Dowty, D., 1986. The effects of aspectual class on the temporal structure of discourse: semantics or pragmatics? *Linguistics and Philosophy*, 9(3), pp.37–61.

Dulay, H. & Burt, M., 1973. Should we teach children syntax? *Language Learning*, 23(2), pp.245–258.

Dulay, H.C. & Burt, M.K., 1974. Natural sequences in child second language acquisition. *Language Learning*, 24(1), pp.37–53.

Eisele, J., 1999. *Arabic Verbs in Time: Tense and Aspect in Cairene Arabic*, Wiesbaden: Otto Harrassowitz Verlag.

Eisele, J., 1988. The Syntax and Semantics of Tense, Aspect, and Time Reference in Cairene Arabi. *Phd Thesis*, University of Chicago.

Ellis, R., 2005. *Instructed second language acquisition a literature review*, Wellington: Ministry of Education of New Zealand. Available at: http://www.educationcounts.govt.nz/publications/schooling/5163.

Ellis, R., 2008. Principles of Instructed Second Language Acquisition. *CAL Digest*, (December). Available at: http://www.cal.org/resources/digest/digest_pdfs/Instructed2ndLangFinalWeb.pdf.

Engel, D.M. & Ritz, M.-E. a., 2000. The Use of the Present Perfect in Australian English. *Australian Journal of Linguistics*, 20(2), pp.119–140.

Fassi Fehri, A., 1993. *Issues in the structure of Arabic clauses and words*, Dordrecht: Kluwer.

Fassi-Fehri, A., 2004. Temporal/Aspectual Interaction and Variation across Arabic Heights. In J. Guéron & J. Lecarme, eds. *The Syntax of Time*. Cambridge, MA: MIT Press, pp. 235–257.

Gabriele, A., 2005. The acquisition of aspect in a second language: a bidirectional study of learners of English and Japanese. *Phd Thesis*, The City University of New York.

Gabriele, A., Martohardjono, G. & Mcclure, W., 2003. Why swimming is just as difficult as dying for Japanese learners of English. *ZAS Papers in Linguistics*, 29, pp.85–103.

Gabriele, A. & Martohardjono, G., 2005. Investigating the Role of Transfer in the L2 Acquisition of Aspect. In L. Dekydtspotter, R. a. Sprouse, & A. Liljestrand, eds. *Proceedings of the 7th Generative Approaches to Second Language Acquisition Conference (GASLA 2004*. Somerville, MA: Cascadilla Proceedings Project, pp. 96–110.

Gabriele, A. & Canales, A., 2011. No time like the present: Examining transfer at the interfaces in second language acquisition. *Lingua*, 121(4), pp.670–687.

Gass, S.M., 1994. The reliability of second-language grammaticality judgments. In E. Tarone, S. M. Gass, & A. Cohen, eds. *Research methodology in second language acquisition*. Hillsdale, NJ: Lawrence Erlbaum, pp. 303–322.

Gass, S.M. & Mackey, A., 2007. *Data Elicitation for Second and Foreign Language Research*, Mahwah, NJ: Lawrence Erlbaum.

Gass, S.M. & Selinker, L., 2008. *Second Language Acquisition: An Introductory Course* 3rd ed., New York :NY: Routledge.

Giorgi, A. & Pianesi, F., 1997. *Tense and Aspect : From Semantics to Morphosyntax: From Semantics to Morphosyntax*, Oxford: Oxford University Press.

Goad, H. & White, L., 2006. Ultimate attainment in interlanguage grammars: a prosodic approach. *Second Language Research*, 22(3), pp.243–268.

Grimshaw, J. & Samek-Lodovici, V., 1998. Optimal subjects and subject universals. In P. Barbosa et al., eds. *Is the Best Good Enough? Optimality and Competition in Syntax*. Cambridge, Mass: MIT Press, pp. 193–219.

Hawkins, R., 2001. *Second Language Syntax: A Generative Introduction*, Oxford: Blackwell Publisher.

Hawkins, R., 2009. Second language acquisition of morphosyntax. In W. C. Ritchie & T. K. Bhatia, eds. *The new handbook of second language acquisition*. leeds: Emerald, pp. 211–234.

Hawkins, R. & Chan, Y., 1997. The partial availability of Universal Grammar in second language acquisition: the `failed functional features hypothesis'. *Second language Research*, 13(3), pp.187–226.

Hawkins, R. & Liszka, S., 2003. Locating the source of defective past tense marking in
advanced L2 English speakers. In R. Van Hout et al., eds. *The lexicon-syntax interface
in second language acquisition,*. Amsterdam: John Benjamins, pp. 21–44.

Hawkins, R. & Hattori, H., 2006. Interpretation of English multiple wh-questions by Japanese
speakers: a missing uninterpretable feature account. *Second Language Research*, 22(3),
pp.269–301.

Hawkins, R. et al., 2008. The Semantic Effects of Verb Raising and its Consequences in
Second Language Grammars. In J. Liceras, H. Zobl, & H. Goodluck, eds. *The Role of
Features in Second Language Acquisition*. Mahwah, New Jersey: Lawrence Erlbaum,
pp. 328–351.

Hawkins, R. & Casillas, G., 2008. Explaining frequency of verb morphology in early L2
speech. *Lingua*, 118(4), pp.595–612.

Haznedar, B., 2001. The acquisition of the ip system in child l2 english. *Studies in Second
Language Acquisition*, 23(01), pp.1–39.

Haznedar, B., 2007. The acquisition of tense aspect in child second language English. *Second
Language Research*, 23(4), pp.383–417. Available at:
http://slr.sagepub.com/cgi/doi/10.1177/0267658307080330 [Accessed April 11, 2013].

Haznedar, B. & Schwartz, B.D., 1997. Are there Optional Infinitives in child L2 acquisition?
In E. Hughes, M. Hughes, & A. Greenhill, eds. *Proceedings of the 21st Annual Boston
University Conference on Language*. Somerville, MA: Cascadilla Press, pp. 257–268.

Hornstein, N. & Lightfoot, D., 1981. Introduction. In N. Hornstein & D. Lightfoot, eds.
Explanation in Linguistics. London: Peter Longmans, pp. 9–31.

Hornstein, N., Nuñes, J. & Grohmann, K., 2005. *Understanding minimalism*, Cambridge: Cambridge University Press.

Howitt, D. & Cramer, D., 2008. *Introduction to SPSS in Psychology*, London: Pearson Education.

Hsien-Jen Chin, D., 2006. Cross-linguistic Effects on L2 Acquisition: an investigation of Aspect. *Phd Thesis*, University of ILLinois at Urbana-Champaign.

Hsien-Jen Chin, D., 2008. A Cross-linguistic Investigation on the Acquisition of Spanish Aspect. In J. Bruhn de Garavito & E. Valenzuela, eds. *10th Hispanic Linguistics Symposium*. Somerville, MA: Cascadilla Proceedings Project, pp. 36–50.

Huang, C., 1997. Semantics of verbs and the use of tense-aspect morphology by L2 leaners of English. *Paper presented to the American Association of Applied Linguistics*, (Orlando, FL).

Hulstijn, J.H., 2007. Fundamental issues in the study of second language acquisition. *EUROSLA Yearbook*, 7, pp.191–203.

Hundt, M. & Smith, N., 1997. The present perfect in British and American English : Has there been any change , recently ? *ICAME Journal*, 33, pp.45–64.

Ionin, T., 2013. Review article: Recent publications on research methods in second language acquisition. *Second Language Research*, 29(1), pp.119–128.

Ionin, T. & Wexler, K., 2002. Why is "is" easier than "-s"?: acquisition of tense/agreement morphology by child second language learners of English. *Second Language Research*, 18(2), pp.95–136.

Jelinek, E., 1981. On Defining Categories: Aux and Predicate in Colloquial Arabic. *Phd Thesis*, University of Arizona.

Kazanina, N. & Phillips, C., 2007. A developmental perspective on the Imperfective Paradox. *Cognition*, 105(1), pp.65–102.

Keller, F., 1998. Grammaticality Judgments and Linguistic Methodology. *Research Paper Presented at Centre for Cognitive Science University of Edinburgh*, EUCCS-RP-3.

Kharma, N. & Hajjaj, A., 1997. *Errors Among Arabic Speakers: Analaysis and Remedy*, Beirut: Libraire du Liban.

King, L., 1983. The semantics of tense, orientation, and aspect in English . *Lingua*, 59(2-3), pp.101–154.

Klein, W., 1994. *Time in Language*, London & New York: Routledge.

Langdridge, D. & Hagger-Johnson, G., 2013. *Introduction to Research Methods and Data Analysis in Psychology* Third., Harlow: Pearson Education.

Lardiere, D., 1998a. Case and tense in the "fossilized" steady state. *Second language Research*, 14(1), pp.1–26.

Lardiere, D., 1998b. Dissociating syntax from morphology in a divergent L2 end-state grammar. *Second language Research*, 14(4), pp.359–375.

Lardiere, D., 2000. Mapping Features to Forms in Second Language Acquisition. In J. Archibald, ed. *Second Language acquisition and Linguistic Theory*. Oxford: Blackwell, pp. 102–129.

Lardiere, D., 2003. Revisiting the comparative fallacy: a reply to Lakshmanan and Selinker, 2001. *Second Language Research*, 19(2), pp.129–143.

Lardiere, D., 2006. Attainment and acquirability in second language acquisition. *Second Language Research*, 22(3), pp.239–242.

Lardiere, D., 2007a. Acquiring (or assembling) functional categories in second language acquisition. In A. Belikova, L. Meroni, & M. Umeda, eds. *Proceedings of the 2nd Conference on Generative Approaches to Language Acquisition North America (GALANA)*. Somerville, MA: Cascadilla Proceedings Project, pp. 233–244.

Lardiere, D., 2007b. *Ultimate Attainment in Second Language Acquisition*, New York: Routledge.

Lardiere, D., 2008. Feature-assembly in second language acquisition. In J. Liceras, H. Zobl, & H. Goodluck., eds. *The role of features in second language acquisition*. Mahwah, NJ: Lawrence Erlbaum Associates, pp. 106–140.

Lardiere, D., 2009a. Further thoughts on parameters and features in second language acquisition: a reply to peer comments on Lardiere's `Some thoughts on the contrastive analysis of features in second language acquisition' in SLR 25(2). *Second Language Research*, 25(3), pp.409–422.

Lardiere, D., 2009b. Some thoughts on the contrastive analysis of features in second language acquisition. *Second Language Research*, 25(2), pp.173–227.

Lardiere, D., 2012. Linguistic approaches to second language morphosyntax. In S. M. Gass & A. Mackey, eds. *The Routledge handbook of second language acquisition*. London & New York: Routledge, pp. 106–126.

Larson-Hall, J., 2010. *A Guide to Doing Statistics in Second Language Research Using SPSS*, New York :NY: Routledge.

Leech, G., 1987. *Meaning and the English Language* 2nd ed., London: Longman Publishing Group.

Li, P. & Shirai, Y., 2000. *The Acquisition of Lexical and Grammatical Aspect* , Berlin: Walter de Gruyter.

Liszka, S., 2004. Exploring the effects of first language influence on second language pragmatic processes from a syntactic deficit perspective. *Second Language Research*, 20(3), pp.212–231.

Lozano, C., 2014. How can second language acquisition research inform us about language teaching? *Paper presented at the second Network for the Interdisciplinary Study of Second Language Learning(NISSLL)*, York(26 April).

Mackey, A. & Gass, S.M., 2005. *Second Language Research: Methodology and Design*, Mahwah, NJ: Lawrence Erlbaum.

Mackey, A. & Gass, S.M., 2011. *Research Methods in Second Language Acquisition: A Practical Guide*, Oxford: Blackwell.

Mandell, P.B., 1999. On the reliability of grammaticality judgement tests in second language acquisition research. *Second language Research*, 15(1), pp.73–99.

Marsden, H., 2003. Inverse scope in L2 Japanese. In B. Beachley, A. Brown, & F. Conlin, eds. *27th Annual Boston University Conference on Language Development*. Boston, Massachusetts, USA, pp. 496–507.

McCawley, J., 1981. Notes on the English present perfect. *Australian Journal of Linguistics*, 1, pp.81– 90.

McClure, W., 1995. *Syntactic projections of the semantics of aspect*, Tokyo: Hituzi Syobo.

Meisel, J.M., 1997. The acquisition of the syntax of negation in French and German: contrasting first and second language development. *Second language Research*, 13(3), pp.227–263.

Messick, S., 1995. Validity of Psychological Assessment. *American Psychologist*, 50(9), pp.741–749.

Montrul, S., 2004. *The Acquisition of Spanish. Morphosyntactic Development in Monolingual and Bilingual L1 Acquisition and in Adult L2 Acquisition*, Amsterdam: John Benjamins Publishing.

Montrul, S., 2011. Multiple interfaces and incomplete acquisition. *Lingua*, 121(4), pp.591–604.

Montrul, S. & Slabakova, R., 2002. The l2 acquisition of morphosyntactic and semantic properties of the aspectual tenses preterite and imperfect. In A. T. Pérez-Leroux & J. M. Liceras, eds. *The Acquisition of Spanish Morphosyntax*. Dordrecht: Kluwer Publishers, pp. 115–151.

Montrul, S. & Slabakova, R., 2003. Competence similarities between native and near-native speakers. *Studies in Second Language Acquisition*, 25(03), pp.351–398.

Mouchaweh, L., 1986. *De la syntaxe des petites prepositions*. Université de Paris VIII, Paris.

Norris, J.M. & Ortega, L., 2000. Effectiveness of L2 Instruction : A Research Synthesis and Quantitative Meta-analysis. *Language Learning*, 50(3), pp.417–528.

Norris, J. & Ortega, L., 2003. Defining and measuring SLA. In C. Doughty & M. Long, eds. *Handbook of Second Language Acquisition*. Malden, MA: Blackwell, pp. 717–761.

O'Neill, R., Washburn, G. & Cornelius, E.T., 1981. *American kernel lessons: Advanced student's book*, New York: Longman.

Ogihara, T., 1998. The Ambiguity of the -te iru Form in Japanese. *Journal of East Asian Linguistics* , 7, pp.87–120.

Oller, J.W., 1973. Cloze tests of second language profi ciency and what they measure. *Language Learning*, 23, pp.105 – 118.

Ouali, H. & Fortin, C., 2007. The syntax of complex tense in Moroccan Arabic. In E. Benmamoun, ed. *Perspectives on Arabic Linguistics*. Amsterdam: John Benjamins, pp. 175–189.

Ouhalla, J., 1994. *Introducing Transformational Grammar: From Rules to Principles and Parameters*, London: Edward Arnold.

Palmer, F.., 1974. *The English Verb* 2nd editio., London: Longman Publishing Group.

Papp, S., 2000. Stable and developmental optionality in native and non-native Hungarian grammars. *Second language Research*, 16(2), pp.173–200.

Pica, T., 1975. The selective impact of classroom instruction on second-language acquisition. *Applied Linguistics*, 6(3), pp.214–222.

Pienemann, M., 1989. Is language teachable? psycholinguistic experiments and hypotheses. *Applied Linguistics*, 10(1), pp.52–79.

Pollock, J.-Y., 1989. Verb movement, Universal Grammar, and the structure of IP. *Linguistic Inquiry*, 20(3), pp.365–424.

Prévost, P., 2011. The Interface Hypothesis: What about optionality in native speakers? *Linguistic Approaches to Bilingualism*, 1(1), pp.79–83. Available at:

http://openurl.ingenta.com/content/xref?genre=article&issn=1879-9264&volume=1&issue=1&spage=79 [Accessed April 11, 2013].

Prévost, P. & White, L., 2000. Missing surface inflection or impairment in second language acquisition? evidence from tense and agreement. *Second language Research*, 16(2), pp.103–133.

Purpura, E., 2004. *Assessing Grammar*, Cambridge: Cambridge University Press.

Qualtrics, 2012. Qualtrics Survey Software. Available at: http://qualtrics.com/research-suite/#enterprise.

Radford, A., 1996. Towards a Structure-Building Model of Acquisition. In H. Clahsen, ed. *Generative Perspectives on Language Acquisition*. Amsterdam: Benjamins, pp. 43–89.

Radford, A., 2009. *An Introduction to English Sentence Structure*, Cambridge: Cambridge University Press.

Reichenbach, H., 1947. *Elements of Symbolic Logic*, New York: Macmillan & Co.

Roberts, L. & Liszka, S. , 2013. Processing tense/aspect-agreement violations on-line in the second language: A self-paced reading study with French and German L2 learners of English. *Second Language Research*, 29(4), pp.413–439.

Robertson, D., 2000. Variability in the use of the English article system by Chinese learners of English. *Second language Research*, 16(2), pp.135–172.

Robison, R., 1990. The Primacy of Aspect. *Studies in Second Language Acquisition*, 12(03), pp.315–330.

Robison, R., 1995. The Aspect Hypothesis Revisited: A Cross-Sectional Study of Tense and Aspect Marking in Interlanguage. *Applied Linguistics*, 16(3), pp.344–370.

Rohde, A., 1996. The aspect hypothesis and the emergence of tense distinctions in naturalistic L2 acquisition. *Linguistics*, 34(5), pp.1115–1138.

Rothman, J., 2008. aspect selection in adult l2 spanish and the Competing Systems Hypothesis when pedagogical and linguistic rules conflict. *Languages in Contrast*, 8(1), pp.74–106. Available at: http://openurl.ingenta.com/content/xref?genre=article&issn=1387-6759&volume=8&issue=1&spage=74 [Accessed March 26, 2013].

Ryding, K.C., 2005. *A Reference Grammar of Modern Standard Arabic*, Cambridge: Cambridge University Press.

Salaberry, R., 1999. The development of past tense verbal morphology in classroom L2 Spanish . *Applied Linguistics*, 20(2), pp.151–178.

Salaberry, M.R., 2000. The acquisition of English past tense in an instructional setting. *System*, 28(1), pp.135–152.

Salaberry, R., 2008. *Marking past tense in second language acquisition:a theoretical model*, London : Continuum.

Schutze, C., 1996. *The Empirical Base of Linguistics: Grammaticality Judgments and Linguistic Methodology*, Chicago: University of Chicago Press.

Schwartz, B.D. & Gubala-Ryzak, M., 1992. Learnability and grammar reorganization in L2A: against negative evidence causing the unlearning of verb movement. *Second Language Research*, 8(1), pp.1–38.

Schwartz, B. & Sprouse, R., 1994. Word order and nominative case in nonnative language acquisition: a longitudinal study of (L1 Turkish) German interlanguage. In T. Hoekstra

& B. D. Schwartz, eds. *Language acquisition studies in generative grammar*. Amsterdam: John Benjamins, pp. 317–368.

Schwartz, B. & Sprouse, R., 1996. L2 cognitive states and the Full Transfer/Full Access model. *Second Language Research*, 12(1), pp.40–72.

Shirai, Y. & Andersen, R.W., 1995. The acquisition of tense-aspect morphology: A prototype account. *Language*, 71(4), pp.743–762.

Slabakova, R., 1997. Zero acquisition: second language acquisition of the parameter of aspect. *Phd Thesis*, (McGill University).

Slabakova, R., 1999. The parameter of aspect in second language acquisition. *Second language Research*, 15(3), pp.283–317.

Slabakova, R., 2000. L1 transfer revisited: the L2 acquisition of telicity marking in English by Spanish and Bulgarian native speakers. *Linguistics*, 38(4), pp.739–770.

Slabakova, R., 2001. *Telicity in the second language* , Amsterdam: John Benjamins Publishing.

Slabakova, R., 2002. Recent research on the acquisition of aspect: an embarrassment of riches? *Second Language Research*, 18(2), pp.172–188.

Slabakova, R., 2003. Semantic evidence for functional categories in interlanguage grammars. *Second Language Research*, 19(1), pp.42–75.

Slabakova, R., 2006. Is there a critical period for semantics? *Second Language Research*, 22(3), pp.302–338.

Slabakova, R., 2008. *Meaning in the Second Language*, Berlin/New York: Mouton de Gruyter.

Slabakova, R., 2009. Features or parameters : which one makes second language acquisition easier , and more interesting to study ? *Second Language Research*, 25(2), pp.313–324.

Slabakova, R., 2010. Semantic Theory and Second Language Acquisition. *Annual Review of Applied Linguistics*, 30, pp.231–247.

Slabakova, R., 2011. L2 Semantics. In S. Gass & A. Mackey, eds. *The Routledge Handbook of Second Language Acquisition*. London: Routledge/Taylor Francis, pp. 127–146.

Slabakova, R. & Montrul, S., 2002. Aspectual tenses in Spanish L2 acquisition: a UG perspective. In Y. Shirai & R. Salaberry, eds. *Tense-Aspect Morphology in L2 acquisition*. Philadelphia: John Benjamins, pp. 359–391.

Smith, C., 1983. A theory of aspectual choice. *Language*, 59(3), pp.479–501.

Smith, C.S., 1997. *The Parameter of Aspect* 2nd ed., Dordrecht: Kluwer Academic Publishers.

Smith, C.S., 1999. Activities: States or Events? *Linguistics and Philosophy*, 22, pp.479–508.

Sorace, A., 1996. The use of acceptability judgments in second language research. In V. T. Bhatia & W. Ritchie, eds. *Handbook of Second Language Acquisition*. New York: Academic Press, pp. 375–409.

Sorace, A., 2000. Syntactic optionality in non-native grammars. *Second language Research*, 16(2), pp.93–102.

Sorace, A., 2003. Near-nativeness. In M. Long & C. Doughty, eds. *Handbook of Second Language Acquisition*. Oxford: Blackwell, pp. 130–152.

Sorace, A., 2005. Selective optionality in language development. In L. Cornips & K. P. Corrigan, eds. *Syntax and Variation: reconciling the biological and the social*. Amsterdam/Philadelphia: John Benjamins, pp. 55–80.

Sorace, A., 2011. Pinning down the concept of "interface" in bilingualism. In *Linguistic Approaches to Bilingualism*. Amsterdam: John Benjamins Publishing, pp. 1–33. Available at: http://openurl.ingenta.com/content/xref?genre=article&issn=1879-9264&volume=1&issue=1&spage=1 [Accessed March 26, 2013].

Sorace, A. & Serratrice, L., 2009. Internal and external interfaces in bilingual language development: Beyond structural overlap. *International Journal of Bilingualism*, 13(2), pp.195–210.

Stanton, A. & Morris, S., 1999. *Plus, CAE: Practice tests*, Harlow,Essex: Pearson Education.

Tenny, C., 1994. *Aspectual Roles and the Syntax-Semantics Interface*, Dordrecht: Kluwer Academic Publishers.

Travis, L., 1994. Event Phrase and a theory of functional categories. In P. Koskinen, ed. *Proceedings of the 1994 Canadian Linguistics Association*. Toronto Working Papers in Linguistics, pp. 559–570.

Tremblay, A., 2011. Proficiency assessment standards in second language acquisition research. *Studies in Second Language Acquisition*, 33(03), pp.339–372.

Tsimpli, M. & Roussou, A., 1991. Parameter-resetting in L2? *UCL Working Papers in Linguistics*, 3, pp.149–170.

Tsimpli, I.M. & Dimitrakopoulou, M., 2007. The Interpretability Hypothesis: evidence from wh-interrogatives in second language acquisition. *Second Language Research*, 23(2), pp.215–242.

Vainikka, A. & Young-Scholten, M., 1996. Gradual development of L2 phrase structure. *Second Language Research*, 12(1), pp.7–39.

Vendler, Z., 1967. *Linguistics in Philosophy*, Ithaca, NY: Cornell University Press.

Verkuyl, H., 1972. *On the Compositional Nature of the Aspects*, Dordrecht: Reidel.

Verkuyl, H., 1993. *A Theory of Aspectuality:The Interaction between Temporal and Atemporal Structure*, Cambridge: Cambridge University Press .

De Villliers, J. & De Villiers, P., 1973. A Cross-Sectional Study of the Acquisition of Grammatical Morphemes in Child Speech. *journal of psycholinguistic Research*, 2(3), pp.267–278.

Wagner, L., 2001. Aspectual influences on early tense comprehension. *Journal of Child Language*, 28(03), pp.661–681.

Weist, R.M. et al., 1984. The defective tense hypothesis: on the emergence of tense and aspect in child Polish. *Journal of Child Language*, 11(2), pp.347–374.

White, L., 1990. The Verb-Movement Parameter in Second Language Acquisition. *Language Acquisition*, 1(4), pp.337–360.

White, L., 1991. Adverb placement in second language acquisition: some effects of positive and negative evidence in the classroom. *Second Language Research*, 7(2), pp.133–161.

White, L., 2003a. On the Nature of Interlanguage Representation:Universal Grammar in the Second Language. In C. Dought & M. Long, eds. *The Handbook of Second Language Acquisition*. Malden, MA: Blackwell Publishers, pp. 19–42.

White, L., 2003b. *Second Language Acquisition and Universal Grammar*, Cambridge: Cambridge University Press.

White, L., 2009a. Grammatical theory: Interfaces and L2 knowledge. In Ritchie.T & Bhatia.T, eds. *The new handbook of second language acquisition*. leeds: Emerald, pp. 49–68.

White, L., 2009b. Some questions about feature re-assembly. *Second Language Research*, 25(2), pp.343–348.

White, L., 2011a. Second language acquisition at the interfaces. *Lingua*, 121(4), pp.577–590.

White, L., 2011b. The interface hypothesis: How far does it extend? *Linguistic Approaches to Bilingualism*, 1(1), pp.108–110. Available at: http://openurl.ingenta.com/content/xref?genre=article&issn=1879-9264&volume=1&issue=1&spage=108 [Accessed March 26, 2013].

Wilson, R. & Dewaele, J.-M., 2010. The use of web questionnaires in second language acquisition and bilingualism research. *Second Language Research*, 26(1), pp.103–123.

Yamazaki-Hasegawa, T., 2009. Aspectual Interpretation in Second Languages : A Bidirectional Study of L2 English and L2 Japanese. In M. Bowles et al., eds. *Proceedings of the 10th Generative Approaches to Second Language Acquisition Conference (GASLA 2009)*. Somerville, MA: Cascadilla Proceedings Project, pp. 180–191.

Yao, X. & Collins, P., 2012. The present perfect in world Englishes. *World Englishes*, 31(3), pp.386–403.

Zobl, H. & Liceras, J., 1994. Functional Categories and Acquisition Orders. *Language Learning*, 44(1), pp.159–180.