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Functional Categories and the Acquisition of Aspect in L2 Spanish: A Longitudinal Study

by

Karyn Schell

A dissertation submitted in partial fulfillment of the requirements for the degree of

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Abstract

Functional Categories and the Acquisition of Aspect in L2 Spanish: A Longitudinal Study

by Karyn Schell

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This dissertation is concerned with the interaction between morphosyntax and semantics in examining how L2 learners acquire the form-meaning relationship of Spanish aspect, i.e. mastering the preterit and imperfect past tenses. Data was obtained during a longitudinal study of English L1 university students while participating in a nine-month study abroad program in Cádiz, Spain. Their progress with the acquisition of L2 Spanish aspect was monitored at different stages throughout the year.

Based on the Primacy of Aspect Hypothesis, as in L1 acquisition, the Distribution Bias Hypothesis argues that due to the biased input they receive from native speakers, adult L2 learners initially restrict grammatical aspect in accordance with the four Vendlerian classes of inherent lexical aspect. Various investigations, however, as well as the data here, illustrate that the match up of grammatical to lexical aspect does not occur at the beginning stages of L2 acquisition and that the use of past tense morphology is initially independent of lexical aspect.

In accordance with the Minimalist Program, the acquisition of L2 Spanish will be treated in terms of the functional categories, Inner and Outer Aspect Phrase, and their corresponding formal features. The three stages of Constructionism will be applied to provide a new framework for investigation. During the initial to early intermediate stages of the acquisition, L2 learners experience L1 transference in which the abstract formal features of English verbs are transferred to the IL. By the late intermediate stage, the L1 feature values are unset, but the L2 values are still not specified, which results in a random identification of aspect by L2 learners. As these feature strengths remain unset,

the IL Outer Aspect Phrase, which assigns the morphology in accordance with the (a)telicity of the VP, apparently mismaps the features associated with the preterit and the imperfect. In the meantime, the L2 learners rely on different strategies, in particular the matching of lexical to grammatical aspect, class by class, in order to acquire the L2 settings. By the advanced stages, the feature values at Inner Aspect Phrase become specified as L2 learners master the lexical aspect of most verbs.

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Chapter 1: Introduction to Aspect

1.0 Introduction

Tense and aspect play a crucial role in syntax – the conjugated verb is the key to the creation of every sentence. In terms of both linguistic theory and language acquisition theory, the importance of verbal syntax and morphology cannot be underestimated, for current generative theory gives a pivotal role to tense and aspect as features of functional categories that determine word order. Aspect is the property of the verb that makes it possible for a sentence to specify a complete or incomplete situation. It refers to the internal temporal structure of a situation as it looks at the internal structure from the outside as a completed event, as in the case of perfective situations, or from the inside as an unbounded or on-going event, as in the case of imperfective situations.

(1) Jack went to the store.

(2) While Jack was going to the store, he saw a car crash.

In (1), the use of the simple past *went* marks a perfective event that was completed before the moment of speaking (i.e. the perspective from the outside). In (2), the use of the progressive *was going* marks an imperfective event that is internally viewed as on-going as it compared to the moment the car crash took place.

Aspect, in particular has not always been recognized as it own independent functional category and has not been considered as important as tense (Lyons, 1977). According to de Miguel (1990), aspect is more important than tense for two reasons: first,

there are more languages that lack tense than languages that lack aspect; and second, ontogenetically speaking, it is more basic than tense, so in those languages that have both tense and aspect, aspect is acquired first.

Tenny (1987) proposes a number of arguments for establishing the separation of aspect and tense. First of all, she states that tense is a deictic category, meaning it relates a situation to some other reference time, while aspect is not. Aspect provides properties to the verbs that are independent of grammatical information, specifically the internal temporal structure of a situation. Another important argument she makes is that aspect is interpreted independently of tense. An event can have no endpoint while it occurs and also be expressed in the past tense. As de Miguel (1990) concludes, tense does not determine aspect, nor does aspect determine tense.

The development of verbal morphology in L2 Spanish for L1 English speakers is a clear example of the cross-linguistic differences in the way tense and aspect are overtly represented. In Spanish, the mapping of the perfective/imperfective semantic distinction of aspect is obligatorily marked by means of verbal endings (i.e. with the preterit and imperfect tenses). English, on the other hand, has a limited inflectional system that does not make such an overt grammatical distinction. To convey information about the aspectual contour of a specific situation, it uses periphrastic constructions and the progressive for imperfective aspect and the simple past for perfective aspect. Aspect is further complicated by the fact that it is compositional. Determining the aspectual contour depends not only on the temporal context, but also on the predicate, previous or

later temporal adjuncts, stylistic conventions and the inherent lexical aspectual biases of verbs, which will be explained in the following section.

This dissertation is concerned with the interaction between morphosyntax and semantics in examining how L2 learners acquire the form-meaning relationship of Spanish aspect, i.e. mastering the preterit and imperfect past tenses. The data and analyses here are based on the acquisition of L2 Spanish aspect by five L1 speakers of English during a 9-month university study abroad program in Southern Spain.

1.1 Functional categories and language acquisition

Current research in linguistics is interested in the distinction between the lexical (open and content-based) and functional (closed) grammatical categories. Phrasal structure is projected from those elements that participate in the theta-marking relationships (i.e. the predicate and its arguments) and from functional categories (i.e. free morphemes, such as modals, auxiliaries, determiners and complementizers, and bound morphemes, such as nominal and verbal affixes) (Chomsky, 1991; Ouhalla, 1991; Pollock, 1989). The Minimalist Program (Chomsky, 1995) argues that the locus of cross-linguistic differences and parameterization lies in the language particular morphology. According to Chomsky (1981), all languages consist of a number of formal universals known as "principles," such as the syntactic categories available to all languages, which universally restrict grammar. What distinguishes the grammars between languages is their "parameters," which are language particular "settings" or rules. One example of a parameter is the Verb Raising Parameter. In English, which has "weak" verbal agreement, the verb does not move overtly from I to V but rather raises covertly from V

to I at LF to check features. In overt syntax it remains in VP to check its weak agreement features. Spanish, on the other hand, which has "strong" agreement, displays verb raising in which the verb raises from V to I to check the strong agreement features.[1]

Investigation on parameter setting and parametric variation has demonstrated the association of different syntactic phenomena in terms of a single parameter (clustering) (Hyams, 1986; Roeper and Williams, 1987; Chomsky, 1988; Zagona, 1988; Jaeggli and Safir, 1989; Lightfoot, 1993). One parameter that clearly demonstrates clustering is the Null Subject Parameter. Null subject languages, such as Spanish and Italian, allow null and overt subjects as their rich verbal inflection can identify the subject through the subject-verb agreements:

(3) (Yo) estudio lingüística. / (Nosotros) estudiamos lingüística.
(I) study-PRES-1st-s linguistics (we) study-PRES-1st-pl linguistics
'*(I) study linguistics.' / '*(We) study linguistics.'

Null subject languages also exhibit *that-trace* effects, which are not possible in overt subject language:

(4) *Who did you say that went to the party?
¿Quién dijiste que e_i fue a la fiesta?

[1] For a lengthy discussion on the verb raising parameter, see Herschensohn (1998a, 1998b), Eubank (1992) and Pierce (1992).

It has been assumed that for acquisition, positive evidence of a particular phenomenon *triggers* the setting of a parameter (Hyams, 1986; Roeper, 1986; Clahsen, 1986). In the case of the Null Subject Parameter, evidence of optional subjects and the lack of expletives would then trigger the subject-optional value, which would then trigger other properties of the cluster, such as the *that-trace* effect. Further research, however, has demonstrated that not all null subject languages share the same generalizations (Jaeggli and Safir, 1989). For example, German has rich verbal inflection and yet the subject is obligatory. Chinese, on the other hand, does not have rich verbal inflection and the subject is null. It is the morphological realization of the various categories (i.e. their phonetic realization, their morphological features and the strong/weak features associated with syntactic movement) that distinguishes languages from one another. In terms of language learning, in order for parameter setting to take place, the acquisition of the morphological features of functional categories is crucial.

The division between lexical and functional categories is supported by grammar-external evidence in the various production data of first (L1) and second (L2) language learners, and also the findings of event related brain potentials (ERPs) and functional magnetic resonance imaging (fMRIs) which study localizations of brain areas for language function. Studies of ERPs have illustrated a significant dichotomy between the responses to syntactic versus semantic information. For example, Osterhout and Holcomb (1992, 1993) find different responses for semantic (lexical) as opposed to morphosyntactic (functional) anomalies. Studies with fMRIs on early and late bilinguals have found similarities in where the language functions related to the lexicon are located

but differences in the spatial separation of where the functions related to syntax are located. Whereas early bilinguals represent the syntax for both the L1 and L2 in the common frontal cortical areas, late bilinguals represent it in the same region, but it is spaced differently from the L1 (Kim, et al., 1997). These empirical findings confirm separate areas of specialization for the lexicon and the grammar in the brain.

Production data from extra-societal children who have been deprived of linguistic input also support the separate acquisition of lexical and functional categories. The most famous case is that of Genie who had been isolated and abused until she was thirteen (Curtiss, 1977; Rymer, 1993). While she was being investigated for eight years after her recovery, researchers attempted to teach her how to speak and comprehend language. She eventually achieved good lexical and propositional semantic abilities but persisted with severe impairment of the grammar, such as defective morphology and word order violations (Curtiss, 1977, 1988).

The division between lexical and functional categories poses an interesting area of research for both First (L1) and Second (L2) Language Acquisition. While L1 learners easily acquire the morphological and functional categories at a total success rate, adult L2 learners are rarely completely successful. Herschensohn (2000a) states:

> "Vocabulary and morphology represent the most substantial tasks of language acquisition, since the former is potentially infinite and the latter manifests subtle features that are not superficially evident. The acquisition of morphological features and functional categories is crucial in both L1A(cquisition) and L2A since the setting of the parameters is closely linked to the acquisition of these two phenomena. However, the path followed by the two is different since L1ers are able to gain morphology, set syntactic parameters and get clustering effects more or less at the same time. L2ers, on the other hand, show quite a bit of variability in their rates and patterns of acquisition." (84)

As in FLA, research in SLA suggests that the acquisition of morphology plays as crucial of a role in the L1 as it does in the L2. In order to fully acquire an L2, its morphological features must be mastered and also linked to functional categories. Current research regarding the acquisition of L2 functional categories has focused on the following issues: L1 transference during the initial state of the L2, the accessibility of L2 functional categories and their corresponding formal features via Universal Grammar (UG), and the existence of a link between the morphology and the syntax (i.e. the possibility that the morphology must be acquired before the corresponding formal features can be accessed). Epstein et al. (1996) summarize three different arguments regarding the L2 access to UG, the innate predisposition all humans have to acquire language (Chomsky, 1965). The *no access* approach (based on Bley-Vroman, 1990) argues that UG is no longer accessible after puberty, or a critical period. Therefore, L2 learners do not have access to L2 functional categories or their formal features (Clahsen and Muysken, 1989; Bley-Vroman, 1989, 1990; Schachter, 1990, 1996). The *partial access* approach posits that only certain aspects of UG, such as functional categories or parameter settings, are available to the L2 learner (Strozer, 1994; Liceras et al., 1998). The *full access* approach claims that the substantive universals (i.e. functional categories and features), as well as the formal universals (i.e. constraining principles) of UG are available to the L2 learner (Schwartz and Sprouse, 1994, 1996).

Accessibility to UG and subsequently to L2 functional categories and their formal features has been linked to the influence of the L1. White (1996) summarizes four positions regarding L1 interference during the L2 initial state. The first position states

that in the L2, there is only access to UG through L1 properties (Clahsen and Muysken, 1989; Bley-Vroman, 1989, 1990; Schachter, 1990, 1996). Therefore, L2 learners do not have access to the L2 functional categories or features. The second position claims that L1 properties are initially transferred, but the L2 learner eventually has access to L2 functional categories. The Full Transfer/Full Access Hypothesis (Schwartz and Sprouse, 1994, 1996), for example, argues that the L1 categories and features are initially transferred to the L2. A third position argues that L2 learners have direct access to L2 UG and initially "start over" without any L1 transference (Epstein et al., 1996). The final position posits that parts of the L1 transfer to the L2. For the Weak Transfer Hypothesis, for example, the L1 functional categories are transferred to the L2 without their feature values (Eubank, 1992; 1993/94, 1994). The L2 values are then eventually set with positive evidence from the L2.

The eventual acquisition of the L2 feature values for functional categories has been associated with the acquisition of morphology. Based on cross-linguistic evidence from FLA in which the acquisition of syntactic movement has been linked to the morphological phi features (Hyams, 1986; Pierce, 1992; Lust et al., 1994), research has investigated the same possible morphosyntactic link in L2 acquisition. While some scholars claim there is a link between the [-interpretable] and [+interpretable] morphological features (Eubank, 1993/94; Vainikka and Young-Scholten, 1996, 1998), others argue that the morphology and syntax do not operate in tandem and that they develop independently of one another (Schwartz and Sprouse, 1996; Lardiere, 1998a, 1998b).

1.2 Aspect

In agreement with Chomsky's Minimalist Program (1995), Giorgi and Pianesi believe that morphology is the "locus" of the cross-linguistic differences and parameterization (1997:6). They argue that since every language has its own particular morphemes for encoding tense and aspect, the temporal and aspectual information conveyed differs from one language to another:

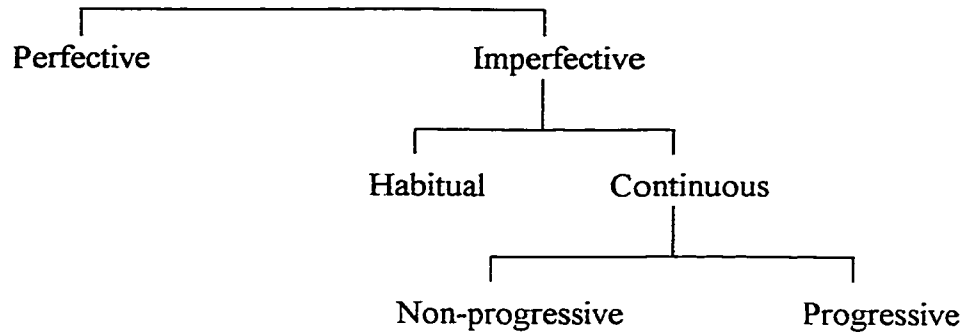
> '...the differences across languages in the temporal and aspectual interpretation are due to, and can be explained by, differences in the morphological system which is employed to express them. In this way, the temporal and aspectual system of a given language might become predictable from a theoretical point of view and, most important, it is possible to explain the acquisition process in the tense and aspect domain.' (1997:6)

In other words, if the differences between the morphology of both the L1 and L2 at hand can be accounted for, the acquisition of the L2, or in this case, the aspect of the L2, can be better understood and predicted.

1.2.1 Perfectivity vs. imperfectivity

According to Comrie (1976), based on (Holt, 1943), aspect concerns the "different ways of viewing the internal temporal constituency of a situation." Stated in other words, aspect describes the degree of completion of a verbal situation. Situations can be broken down into two main categories: perfective (completive) and imperfective (extendible) situations:

(5) Classifications of aspectual oppositions (Comrie, 1976:25)



Guitart (1978) describes past perfective situations as having taken place before the moment of speaking, and from which it can be inferred that they have reached termination:

(6) *I slept three hours last night.*

Depending on the meaning of the verb and the context in which it appears, perfective events can describe a number of situations. For example, they describe events or states that were in effect before the moment of speaking and are no longer in effect at the moment of speaking:

(7) *I walked to the park yesterday.*

Perfective aspect looks at the situation from outside and is not concerned with its internal structure. It can also describe changes of state that have taken place in which either a new state came into effect or a state that was previously in effect has come to an end:

(8) *I became a Democrat last month.* (and am no longer a Republican)

Finally, perfective situations can describe a set of recurring instances within a given situation:

(9) *Mary always completed her phonology homework on time this quarter.*

Unlike perfective occurrences, imperfective past situations are concerned with their relation to some other situation at a given time or with the internal structure without specifying the beginning or end of the situation. Guitart defines them as either "non-cyclic or whole events which take place before the moment of speaking in which some other situation took place or was taking place." (1978)

(10) *I was taking a shower when the phone rang.*

When an imperfective situation is expressed, it refers to at least one other experience or occurrence that took place within the same stretch of time.

(11) *The man was running towards his car.*

The circumstances here are ambiguous and thus prevent the statement from standing in isolation without any other reference to time or some other event.

Imperfective situations are divided into two categories: those that are continuous (in progress) and those that are habitual. Situations that are in progress are often considered background information and are interpreted as the setting for the main action:

(12) *I was not home when the Jehovah's Witness came by.*

(13) *While I was speaking on the phone, the cat knocked the plant over.*

Other situations that are classified as being in progress are those that refer to intention or to a moment that takes place in the future of the moment being referred to in the past:

(14) *I was going to go to the party, but I had to study.*

(15) *That night I had to take care of my brother, but I went out with a friend instead.*

The intentions here of "going to the party" and "taking care of my brother" are what were in progress. Since they were never realized, they cannot be modified by perfective tenses.[2]

Habitual situations describe events or states that are characteristic of an extended period of time. Comrie states that it is a period of time so extended that the situation referred to is viewed not as an incidental property of the moment but rather as a characteristic feature of a whole period (1976):

(16) *I used to watch "Sesame Street" every day as a kid.*

According to Tenny's (1987) analysis, imperfective situations are "nonbounded" in that their boundaries are outside or "off screen" of the context of the scenario in the sentence.

---

[2] From now on these events will be referred to as "future/intention events."

For the purposes of this dissertation, there are four aspectual oppositions of interest: completed events, events in progress, habitual events and the future/intention events.

1.2.2 Lexical aspect

One of the more important characteristics of aspect is inherent lexical aspect. Vendler (1967) proposes a four-way classification of the inherent semantics of verbs: *stative, activity, accomplishment* and *achievement* verbs. Stative verbs are situations or occurrences that are assumed to last indefinitely, for example, *to be, to live,* and *to have*. Activity verbs, unlike stative verbs, require energy in order for them to take place and have an arbitrary beginning and end-point, for example, *to talk, to study,* and *to sleep*. Both states and activities are often classified as "atelic" because of their lack of an inherent or obvious natural endpoint. Like activity verbs, accomplishment verbs have duration, but they also have a built-in inherent end-point. Some examples are *to climb a mountain* and *to paint a picture*. Achievement verbs, like accomplishment verbs, have inherent beginning and end-points but have no duration and take place momentarily, for example *to recognize*, *to enter*, and *to leave*. Accomplishments and achievements are classified as "telic" due to their understood inherent endpoint. These Vendlerian categories are semantic concepts of situations characterized by temporal features with unique distributions and interpretive properties (Smith, 1999).

An important distinction between stative verbs and activity, accomplishment, and achievement verbs is that stative verbs are not dynamic. Stative verbs assert only a single state with no transition from one state to another. Activities, accomplishments and

achievements (i.e. eventive verbs) all have inherent transitions from their initial to final states. In other words, while eventive all have an internal structure, states do not.

1.2.3 Grammatical aspect

While Spanish is able to realize the perfective/imperfective aspectual distinction through the use of inflectional morphology of the preterit (simple past) and the imperfect, respectively, English lacks the equivalent synthetic morphology to make such a clear distinction. Perfective situations are marked using the simple past, while imperfective situations are marked using the progressive tense and modal verbs (i.e. *would, used to,* etc.), as well as the simple past, so the perfective/imperfective distinction is not grammaticalized in English as it is in Spanish. The following summary, adapted from Montrul and Slabakova (1999), illustrates the grammatical aspect for the past tense in both languages:

(17)	Spanish	English
PRETERIT	Ana escrib**ió** a carta.	Ana wrote the letter.
IMPERFECT	Ana escrib**ía** la carta.	—
PAST (IMP) PROGRESSIVE	Ana est**aba** escribiendo la carta.	Ana was writing the letter.

As seen here in (17), English does not make an overt grammatical distinction for the imperfective aspect. The sentence, *Ana escribía la carta*, can be interpreted as 'Ana *used to write* the letter', 'Ana *would write* the letter', 'Ana *was writing* the letter', and also

'Ana *wrote* the letter.' With so many interpretations, it is easy to see why L1 English learners of L2 Spanish have so many difficulties in acquiring Spanish aspect.

In addition to the differences between grammatical aspect in English and Spanish, its realization with the four lexical classes of verbs differs between the two languages, as well. In English, while the perfective grammatical aspect (simple past) can be applied to all four classes of verbs, the imperfective grammatical aspect (progressive) can only be applied to activities, accomplishments and achievements. The distinction of dynamism is seen here as the English progressive cannot be used with statives (Smith, 1997; Giorgi and Pianesi, 1997). In Spanish, on the other hand, both the preterit and the imperfect can be applied to all four classes of verbs:

(18)	PROGRESSIVE/IMPERFECT	PRETERIT
STATIVE:	*I was loving you. Te amaba.	I loved you. Te amé.
ACTIVITY:	Mary was swimming. María nadaba.	Mary swam. María nadó.
ACCOMPLISHMENT:	John was writing a letter. Juan escribía una carta.	John wrote a letter. Juan escribió una carta.
ACHIEVEMENT:	Gloria was turning on the t.v. Gloria encendía la tele.	Gloria turned on the t.v. Gloria encendió la tele.

As a result of the use of perfective grammatical aspect with stative verbs in English, there are two possible interpretations: either open (imperfective) or closed (perfective). In other words, out of context and without other temporal references, the state is seen as on going or as completed:

(19) Sam owned three stores.

(20) Jane lived in San Diego.

(21) Bill was angry.

There is not any indication in any of these sentences that specifies whether the states of owning, living and being angry ever ended, but neither is there anything that says they ever continued. Therefore, the interpretation is ambiguous.

In sum, there are two main characteristics of aspect: lexical aspect and grammatical aspect. Lexical aspect refers to the intrinsic temporal features in the semantics of all verbs. States are situations with no inherent endpoint or internal structure that are assumed to last indefinitely if unchanged. Activities have arbitrary beginning and endpoints and require energy in order to continue. Accomplishments have built-in endpoints and limited duration. Achievements also have built-in endpoints but no duration (Vendler, 1967). Grammatical aspect refers to the phonetic realization of aspect. Some languages, such as Spanish, express the perfective/imperfective distinction by means of overt tense/aspect morphology on the verb in synthetic forms, such as the Spanish preterit and imperfect. Other languages, such as English, do not possess this grammaticalized distinction to encode the perfective and imperfective situations morphosyntactically. Therefore, periphrastic constructions, such as *used to* and *would* are necessary to express imperfective situations of habituality and events in progress.

What is apparent from this discussion is that the encoding of aspect is compositional. Whether to assign perfective or imperfective morphology may depend on

the inherent lexical aspect of the verb, as in the case of stative verbs only occurring in the simple past tense in English, temporal adjuncts that specify on-going or completed actions, and also previous context and even stylistic conventions that establish the totality of an event. As will be seen in the following chapters, the L2 learner must therefore consider all of these factors when assigning the morphology. This complexity, in addition to the cross-linguistic differences between the encoding of aspect in English and Spanish, make Aspect an ideal area of interest and investigation for SLA.

1.3 Purpose and outline of dissertation

Like many students of typical study abroad programs sponsored by American colleges and universities, the subjects from this present study combined a period of residence in another country with classroom based language and content area study. Although their courses were all conducted in the target language, they were designed specifically for the American program and American students (i.e. the exchange program was not identical to the courses provided for native residents). Unlike their classes at home, the classes abroad were accompanied by spontaneous/untutored language learning in the natural target language community.

Although a significant amount of past research has been conducted regarding the preparation for the study abroad experience, program assessment, general policy issues and overall benefits that result from the experience, Freed observes that there are relatively few empirical studies that address the linguistic impact of studying abroad in "a carefully-controlled and in-depth manner" (1995:5). Freed further states that "scant attention has been paid to the actual linguistic experiences that students have while they

are abroad, or to documenting the changes in their communicative language skills as a result of an experience abroad" (1995:6). Most empirical studies have focused on aural and oral proficiency, such as speech rate and the availability of L2 speech repair strategies, but few have explored specific linguistic variables involving phonology, semantics and syntax. Little is known about the changes in structural accuracy of the L2 learners' language. Brecht et al. (1995) similarly claim the following:

> "...the foreign language acquisition field has been weak in responding to demands for rigorous answers to questions, like: Do students actually gain significantly in language skills from in-country study, particularly in comparison with intensive domestic programs? If they do, which students are most likely to gain? Which are most likely to have difficulty? What precisely is gained linguistically from living in the country? Which language skills." (1995:37-8)

Further research has been conducted more recently and the findings regarding the benefits of studying abroad are contradictory. While some believe out-of-class L2 contact does promote higher linguistic levels (Bialystok, 1978; Rubin, 1975; Seliger, 1977; Stern, 1983), others believe that either it does not necessarily enhance L2 acquisition (Day, 1985; DeKeyser, 1986; Freed, 1990; Krashen and Seliger, 1976; Krashen at al., 1974; Spada, 1985, 1986) or that it impedes L2 acquisition (Higgs and Clifford, 1982). Spada (1985) and Freed (1990) find that while intermediate-level learners improve linguistically from studying abroad, advanced-level learners do not. Ellis (1994) summarizes the various literature regarding the study abroad experience and claims that natural exposure combined with formal instruction does enhance greater L2 proficiency.

The purpose of the present study is to explore the acquisition order of Spanish aspect on a longitudinal basis. As it has been found with other longitudinal and acquisition order studies (VanPatten, 1987; Ryan and Lafford, 1992; Guntermann, 1992a, 1992b), I will argue that L1 English learners of L2 Spanish experience various stages during the acquisition of aspect, which have been documented for the individual subjects throughout the study. To the author's knowledge, this type of longitudinal documentation on Spanish L2 aspect is the first of its kind.

In addition to the longitudinal data, the difference between the encoding and structural representation of aspect in Spanish and English will be presented in order to explain the process for English L1 learners in acquiring Spanish L2 aspect. I will present empirical data and quantified analyses based on two intermediate learners and the three advanced learners to outline the various stages of acquisition and the difficulties that emerge in their Interlanguage (IL). The main focus here will be the acquisition of past tense verbal inflectional morphology and whether or not it is a prerequisite for the projection of functional categories. The data provided will suggest that morphology and functional category projection are independent of one another in L2 acquisition. In accordance with Lardiere (1998), what is problematic for L2 learners appears to be the mapping of abstract syntactic features on to morphological forms.

The following four chapters are organized as follows: Chapter 2 presents the structural representation of the functional categories, Inner Aspect Phrase (Travis, 1992) and Outer Aspect Phrase (Zagona, 1994) according to the Temporal Argument Structure Hypothesis (Zagona, 1990, 1991) which incorporates Pustejovsky's (1988) analysis of

subevent structure in Spanish and English. Assuming a generative framework of feature checking within the Minimalist Program (Chomsky, 1995), the features associated with Aspect in each language will be described, as well as the syntactic movement that takes place for these features to be checked off. In Spanish, Inner Aspect Phrase marks the (a)telicity of the VP and its arguments with the perfective or bounded feature [+FINAL] and the imperfective or unbounded feature [-FINAL]. Outer Aspect Phrase then assigns the morphology according to the (a)telicity of Inner Aspect Phrase. If the VP is perfective, the feature [+FINAL] is checked and deleted at the Spec of Outer Aspect Phrase and the preterit is used. If the VP is imperfective, no feature will be checked or deleted at the Spec of Outer Aspect Phrase and the imperfect is used. According to Giorgi and Pianesi (1997), in order to be recognized as verbs, all English eventive verbs are associated with the formal feature [+perfective]. The task for the English L1 learner of L2 Spanish is to lose the feature [+perfective] associated with eventive verbs and acquire the feature [+FINAL] associated with the preterit and [-FINAL] associated with the imperfect.

Chapter 3 addresses the previous research on the acquisition of aspect, in particular the Primacy of Aspect Hypothesis (Andersen, 1989, 1991), which claims that like L1 learners, early L2 learners limit tense/aspect markers to restricted lexical classes of verbs. In addition to the problems with this theory, a description of current research in the acquisition of functional categories and the importance of morphology in driving syntactic movement will be presented in order to explain why the POA does not effectively account for the stages of L2 acquisition.

Chapter 4 provides a description of the present investigation, including the subjects, the experiment and the production data collected from two instruments, a fill-in-the-blank exercise and spontaneous writing samples. In addition to the relevance of the POA and the correct use of aspectual oppositions, the data will be analyzed to determine whether the morphology and syntax are acquired in tandem or separately. The data will show two major findings: the early intermediate L2 learners are not capable of simultaneously tending to form and meaning, and therefore are not able to restrict the use of morphology as suggested by the Primacy of Aspect Hypothesis, and despite impoverished or missing inflection, they demonstrate examples of the formal features responsible for syntactic movement, thus implying that the morphology and syntax operate independently of one another. Finally, the results will illustrate that the difficulties in encoding aspect lie in the mismatching of the syntactic features associated with the Spanish morphology.

Chapter 5 proposes a new theoretical framework, Constructionism (Herschensohn, 1998a, 2000a) to account for the stages of acquisition of Spanish L2 aspect. Constructionism posits three stages of L2 acquisition: at the first stage, the L2 learners rely on the L1 feature values for a given parameter, which they have transferred over to the L2; during the second stage, the L1 feature specifications are unset, which results in a period of underspecification for the L2 values; at the final stage, the feature values are specified for the L2 and complete parameter setting takes place. It will be illustrated here how the data obtained supports the three stages of Constructionism and contradicts the POA Hypothesis. I will propose that the difficulties related to the

acquisition of Spanish L2 aspect lie in the feature checking that takes place at Inner and Outer Aspect Phrase. English L1 learners of L2 Spanish initially transfer the L1 value associated with the abstract morphological feature, [+perfective]. During the next stage, the L1 value is lost, which results in the random application of the preterit and the imperfect. By the end of this intermediary stage, the L2 learners begin to use the inherent lexical aspect of individual classes (i.e. not all lexical classes uniformly) to guide them in determining the correct features for the preterit and the imperfect (i.e. [+FINAL] and [-FINAL], respectively). This then results in an over match up of lexical to grammatical aspect. By the final stage, the L2 learners are able to weigh the different variables responsible for determining the correct aspect and then produce target-like constructions.

Finally, Chapter 6 will suggest further areas of research for aspect and L2 Acquisition, in general.

Chapter 2: Theoretical framework - Aspect Phrase

2.0 Introduction

In order to determine the point of departure for the L1 English learners of L2 Spanish aspect, this chapter will explore the differences between Spanish and English found in the functional category Aspect Phrase. Assuming a generative framework within the Minimalist Program (Chomsky, 1995), Section 2.1 will provide a description of functional categories and their features in general. Sample derivations will illustrate how feature checking drives syntactic movement. Section 2.2 will discuss Aspect Phrase in detail, starting with a description of the temporal entities related to tense and aspect and how they are structurally represented. Zagona's Temporal Argument Structure Hypothesis (1990, 1991), which incorporates Pustejovsky's (1988) analysis of subevent structure, will be applied to illustrate the representation of both Inner Aspect Phrase (Travis, 1992) and Outer Aspect Phrase (Zagona, 1994) and how feature-checking takes place in those phrases. This section will then continue with the formal features associated with verbs and morphemes in both English and Spanish. In order to account for the differences between the two aspectual systems, I will apply Giorgi and Pianesi's (1997) analysis of the parametric differences between Germanic and Romance based on the Minimalist Program. Section 2.3 will summarize the acquisition process for the L2 learners of Spanish aspect and will point out the major differences between English and Spanish.[1]

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[1] Another important stage involved in the acquisition of verbal morphology is the acquisition of the verb raising parameter (discussed in section 1.1). Since the intermediate students produced fully inflected verbs

2.1 Functional categories – general description

All languages can be described as containing lexical and functional categories. Lexical categories (or content words - Verb, Noun, Adjective and Preposition) project from elements in theta-marking domain. Functional categories (or grammatical words – Determiner, Negation, Tense, Agreement, etc.), on the other hand, are assumed to dominate lexical categories. According to the Minimalist Program (Chomsky, 1995), functional categories contain sets of features, such as person, number, gender, etc. There are many types of features: semantic (e.g. abstract object), phonological (e.g. sounds) and formal. Formal [-interpretable] features are relevant to syntax and vary in strength; strong categorial features (e.g. a strong verbal feature) force overt movement in syntax (e.g. verb raising to Tense). They often correlate with overt morphology and may be checked overtly in the syntax (prior to Spell-Out, the point in a derivation at which the set of phonetic features in a structure is deleted or "stripped away" from the syntactic structure). Weak categorial features, on the other hand, do not force overt raising in the syntax and features are checked in this case at LF. [+interpretable] features can be either intrinsic, such as the feature for gender, which is automatically assigned at the lexicon, or not intrinsic, such as number (i.e. plurality), which is determined by the speaker. Unlike [+interpretable] features, which get checked at the appropriate functional categories,

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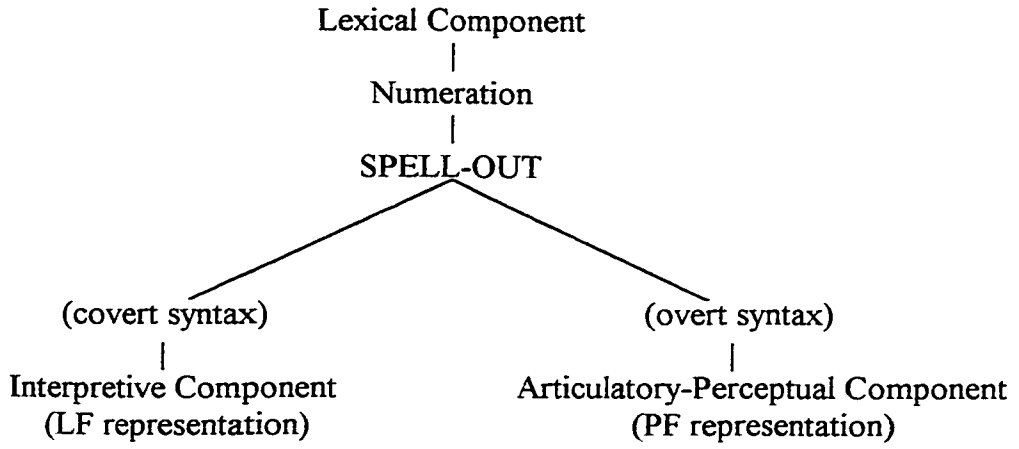
in both the worksheets and the writing samples, it will be assumed that they have already or almost completely acquired the verb-raising parameter. This data will be presented in Chapter 4 and then analyzed in Chapter 5.

[-interpretable] features must be checked first and then deleted before LF. If they do not get checked, the derivation will crash. The following is a model of how a derivation proceeds (Olarrea, 1996):

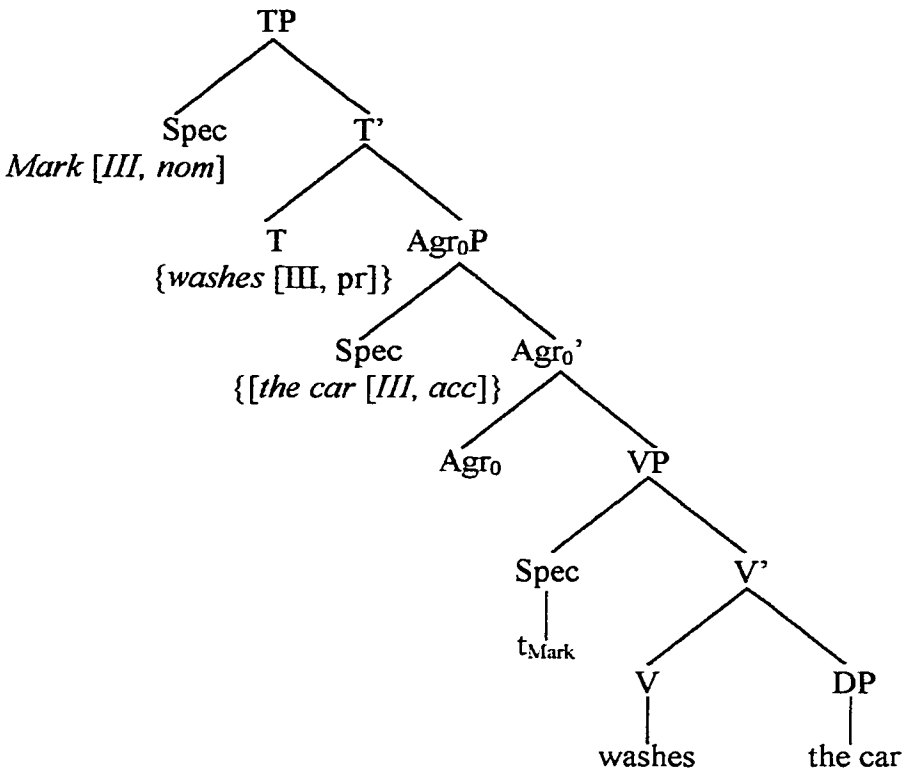
(1)



The Minimalist Program assumes the condition of uniformity at LF, meaning the conceptual-intentional performance system is universal and therefore must be identical in all languages. The PF interface, on the other hand, varies from language to language. In other words, languages differ from one another in their overt syntax but not in their covert syntax.

What drives syntactic movement is the checking of the features associated with the functional categories. The following example taken from Herschensohn (2000a) illustrates how feature checking takes place:

(2) Agr_s P [...][2]



Here the external argument (the VP internal subject, *Mark*) is generated in the Spec of VP. *The car*, the direct object, is the complement of the verb. In order to check the features, the verb and its argument have to raise to the appropriate functional projection either overtly (*Mark*) or covertly (*washes, the car*). The subject DP, *Mark*, is forced to raise overtly to Spec TP because of the "strong nominative case" features of the functional category T, which must be checked off and deleted. The other features, the phi features (e.g. number), must also match to enable spec-head agreement between the subject DP and the verb that raises to T. While T has a strong nominative feature that forces the raising of the subject in English, it has a weak verbal feature so *washes*, which

[2] The curly brackets indicate covert raising and the square brackets indicate phi features.

is fully inflected, only raises covertly at LF (after Spell-Out), as does the direct object, *the car*, which raises to Spec Agr_O.[3]

The functional categories and their features are considered to be universal and present in adult grammars, but not all functional categories are found in every language. Therefore, the main locus of linguistic variation is found in the realization of the various functional categories (Borer, 1984; Chomsky, 1995; Wexler & Manzini, 1987). In other words, languages vary with respect to feature values or feature strength of a given functional category.

During L1 acquisition, children select features from a universal inventory and map them to the morphemes they encounter. Parameter values are encoded in the lexical entries of the various functional categories or in the strength of the associated features (Montrul & Slabakova, 1999). In L2 acquisition, learners are faced with one of two possible situations. If the L2 contains a functional category not found in the L1, they must acquire the category in addition to its morphological features. If both languages share the same functional category, they must then acquire the new L2 features along with their strength and determine which morphemes they map onto.[4]

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[3] Because English T, unlike Spanish, has a weak verbal feature, it does not induce raising of the V in the overt syntax. Instead, the verb raises at LF to check its features against the nominative subject and other [verbal] formal features in T.

[4] The acquisition of functional categories and morphological features will be discussed in detail in Chapter 3.

2.2 Aspect Phrase

2.2.1 Temporal entities

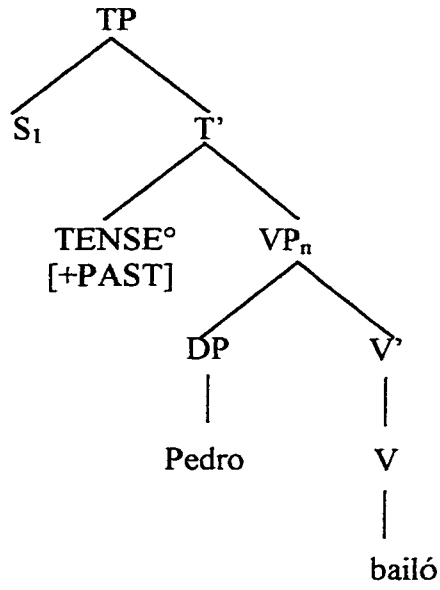
This section discusses the structural representation of aspect, which provides a deeper understanding of the differences between English and Spanish. Tenses in general involve different relationships between particular times. For example, in the simple tenses, such as the preterit, there is a precedence relationship between the event time, which take place prior to the moment of speaking, and the speech time or moment of utterance. For complex tenses, however, such as the present perfect, the presence of the two times alone is not enough to distinguish them from the simple tenses. To solve this problem, Reichenbach (1947) proposed a theory of tenses based on three temporal entities: *S*, refers to utterance or speech time; *E* denotes the time of the event instantiated by the predicate of the clause; and *R*, reference time, is a separate time that is related to both S and E.

According to the Temporal Argument Structure Hypothesis (TAS) (Zagona, 1990, 1991), the temporal entities that participate in the ordering of relations involved in tense construal are syntactically explicit temporal arguments selected by the head of Tense Phrase (TP). Zagona argues that these temporal arguments are analogous to standard (nominal) arguments, except that their referential indices are orderable. In fact, the ordering of these temporal expressions proceeds "bottom-up" in a derivation (Zagona, 1994):

(3) Juan dijo que María oyó que Pedro cantó en la fiesta.
'J. said that M. heard that P. sang at the party.'
sang < heard < said < Speech-time

In a derived structure, the "Event-time" or internal temporal argument is found embedded in $\underline{VP_n}$ (i.e. the VP is theta-marked with an internal role, Event). The external temporal argument, "Speech-time," is found in the matrix clause at the Spec of CP.

(4) Pedro bailó.
'Peter danced.'



Based on Enç (1987) Zagona states that the external temporal argument, S_1 moves to the Spec of a higher phrase, which she assumes to be Spec of CP, where it is sensitive to government by clause-external elements. The feature [+PAST] is a Case-like feature assigned by [+TENSE], which temporally identifies the Event VP (Zagona, 1991).

2.2.2 Subevent structure

According to Pustejovsky (1988), aspect can be further described in terms of subevent structure. Subevents are the subperiods or moments of time that hierarchically represent the various transitions or states of an event. Events can be broken down into

three categories: transitions, processes and states. Transitions (accomplishments) are telic events that have final endpoints that are intrinsic to the notion of the event. Pustejovsky represents these endpoints with E_1, the initial subevent, and E_2, the final subevent. Telic events can consist of one or several stages (S) of time (t) (Smith, 1999):

(5) Transitions with single stage: *open, close, enter*

t_1	t_2	t_3
rest (E_1)	S	rest (E_2)

(6) Transitions with multiple successive stages: *build a chair, paint a picture*

t_1	t_2	t_3	t_4	t_5	t_6	t_7	t_8
rest	E_1	St_1	St_2	St_3	St_4	E_2	rest

Processes (activities), on the other hand, are atelic. They are situations that have an arbitrary final endpoint that may terminate at any time after an initial stage that is large enough to count as part of the activity (Taylor, 1972).

(7) Processes: *dance, sing, walk*

t_1	t_2	t_3	t_4	t_5	t_6 .....
rest	E_1	St_1	St_2	St_3	St_4 .....

In other words, processes contain multiple subevents beginning with E_1 and with no inherent E_2 (Pustejovsky, 1988).

States, unlike transitions and processes, do not have any internal structure, and therefore do not contain any subevents (Pustejovsky, 1988):

(8) States: *be, love, know*

t_1 t_2 t_3 t_4 t_5 t_6

rest .....E ..... rest

In (8) we see that E_1 and E_2 are not assigned (i.e. there are no inherent initial or final subevents) and are therefore classified as *simple* events.

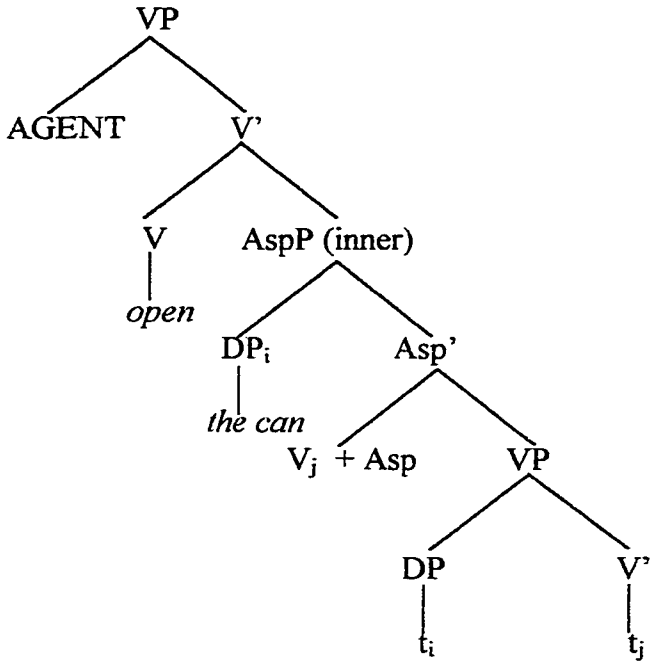
2.2.3 Inner and Outer Aspect Phrases

Zagona (1994) incorporates the TAS hypothesis to explain the relationship between temporal arguments and lexical aspect. She argues that the subevents described by Pustejovsky (1988) are temporal arguments selected by verbs and are licensed by standard (nominal) case marking. In other words, verbs, just like TENSE, can have temporal arguments which are construed relationally.

Following Zagona (1994) and Salome (1996), I assume that there are two layers of aspect in any given clause: lexical and syntactic (grammatical) aspect. Lexical aspect refers to Vendler's (1967) four-way classification of predicate classes. Syntactic aspect refers to the distinction between the perfective and imperfective aspectual morphology (ex. the preterit and imperfect in Spanish). These two types of aspect are construed in two distinct functional categories. Lexical aspect is construed in Inner AspP while syntactic aspect is construed in Outer AspP.

Zagona refers to Travis (1992) to show how the temporal arguments are structurally represented. Travis proposes that there is an 'Inner Aspect' Phrase[5] which intervenes between a lower and a higher projection of VP:

(9) John opened the can.

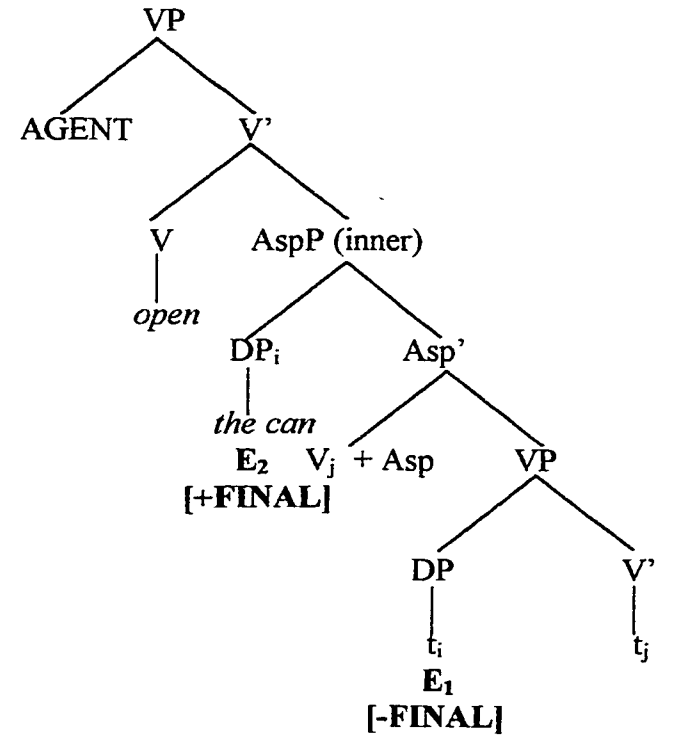


The verb assigns the theta-role to the object in its Spec, then both V and DP move, and V + Asp assign Case (or check the case of) the object in the Spec of AspP. Then the verb moves to a higher position from which it assigns the external theta-role. This movement is motivated in part by the relationship between the Case-assigning property of V + Asp and the telicity of the predicate.

[5] The Inner Aspect Phrase here appears to be the same phrase where Giorgi and Pianesi (1997) propose the checking of verbal categorial features takes place (see Section 1.2).

Zagona (1994) expands on Travis' Inner Aspect Phrase by realizing the temporal subevents on the argument positions within VP. Temporal features are assigned at these positions, which syntactically represent the distinction between atelic and telic events. For accomplishments, E_1, the initial subperiod, is assigned at the Spec of the lower VP, and E_2, the final subperiod, is assigned to the DP object once it has moved to the Spec of AspP (and is also assigned Accusative or structural case by V+A). The subperiods are then assigned the temporal features [+/- FINAL] to mark the telicity. E_1 is assigned [-FINAL] and E_2 is assigned [+FINAL][6]:

(10)

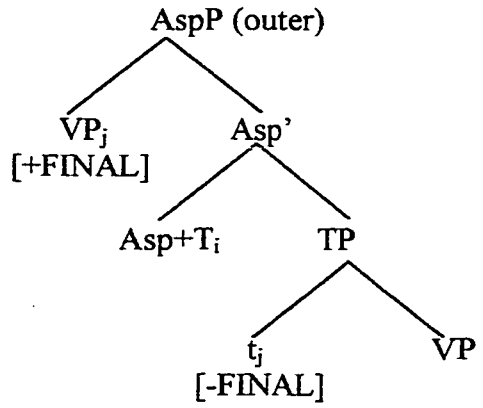


[6] Zagona states that the [+/- FINAL] features are "assigned" to the subevents. In order to be consistent with the Minimalist Program, I will argue that these features are [-interpretable] features that are checked and then deleted.

For states, the E_2-assigning capacity must be suspended. Therefore, no subevent is specified in the Spec of AspP. Finally, for processes, which do have an E_2, as well as other subevents, but lack an inherent endpoint, Zagona uses the features [+/- FINAL] to represent their atelicity. So, where E_2 is assigned, it is also assigned the feature [-FINAL], which must be checked and then deleted.

Since the interval during which an event occurs can be either telic or atelic regardless of the inherent lexical aspect, the grammatical or syntactic aspect (i.e. imperfect or preterit morphology) is necessary to determine which reading of (a)telicity is to be interpreted. Zagona (1994) proposes that T° has a subevent structure that determines the telicity of the VP. She suggests that the 'Outer Aspect' Phrase is analogous to Inner Aspect Phrase in that it serves the same function with respect to a VP object that Inner Aspect Phrase serves with a raised DP object[7]:

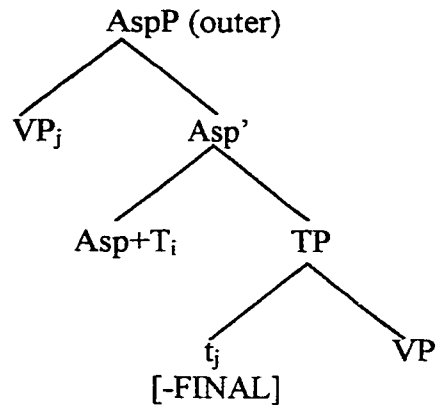
(11) Habló.
'3 s spoke'



[7] The preterit morphology marks the presence of E_2 in Inner AspP while the imperfect marks its absence (Zagona, 1994).

In the case of the preterit, which attempts a telic reading, Zagona proposes that T° assigns (checks and deletes) [-FINAL] to its Spec. Then T° raises to adjoin to the head of Outer Aspect Phrase. T + Asp then assign [+FINAL] to the Spec of Outer Aspect Phrase. In terms of the Minimalist Program, if an imperfective verb raises with its inflection and checks off the feature [+FINAL], the derivation crashes because the imperfect has only the [-FINAL] feature.

(12) Hablaba.
'3 s was speaking.'

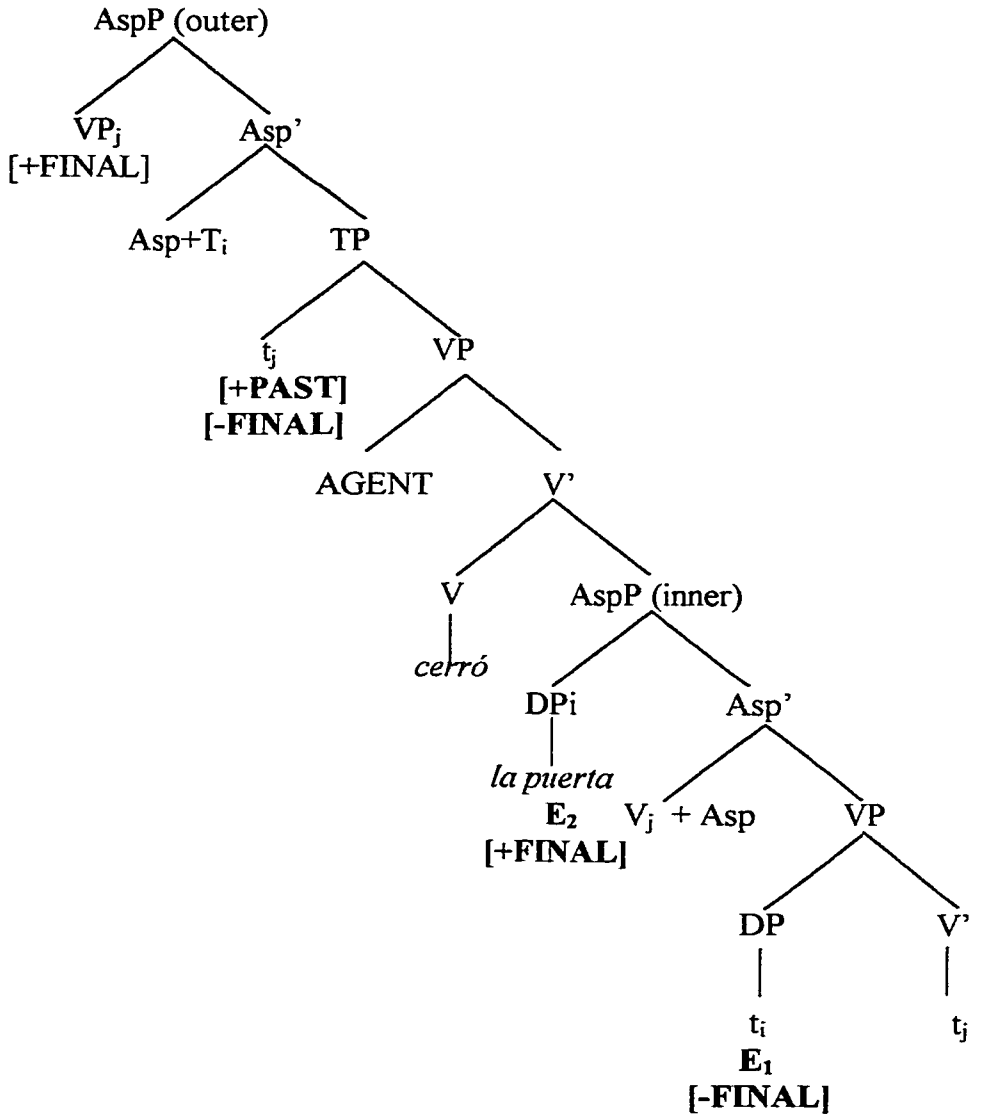


In the case of the imperfect, which attempts an atelic reading, only [-FINAL] gets assigned in the Spec of T°. No feature is assigned at the Spec of Outer Aspect Phrase. A perfective verb that raises with its inflection would crash here because the [+FINAL] feature would not be checked off. Whether the imperfect or preterit will be used depends on factors such as adjuncts within the same clause, subordinate or main clauses, or previous context that specifies a telic or atelic reading. In an isolated monoclausal sentence in which there are no adjuncts or aspectual references, the grammatical aspect

assigned will automatically match the perfectivity (or imperfectivity) of the Inner Aspect Phrase.

(13) illustrates the full structural representation of Inner AspP and Outer AspP for the perfective reading of *cerrar la puerta* "close the door":

(14) cerró la puerta
close-PRET-3rd-s the door



In this derivation, *la puerta*, which is assigned a theta role as the object of the verb, is assigned the initial subperiod E_1 and checks the temporal feature [-FINAL]. V, *cerrar*, and DP then move and V + Asp check the case of the object in the Spec of Inner AspP, where the final subperiod E_2 is assigned and is checked for the feature [+FINAL] to mark the telicity of the VP. In order to morphologically represent the telicity, [-FINAL] is first checked and then deleted at the Spec of TP. TP then raises to adjoin to the head of Outer AspP, and then T + Asp check [+FINAL] at the Spec of Outer AspP. The result, then, is the use of the preterit.

What is evident from the analysis of Inner and Outer AspP is that aspect is compositional: the determination of aspectual class is part lexical and part syntactic (Zagona, 1993). All verbs have inherent lexical aspect, but their aspectual class can be changed when combined with certain syntactic contexts. Temporal adverbs, for example, can change the telicity of an event from telic to atelic (e.g. *Mientras iba al garaje* 'while I was going to the garage') and vice versa. In addition, the interpretation of the verb's argument can influence the aspectual reading. For example, the choice of a singular versus bare plural or mass object distinguishes an accomplishment from an activity, respectively (e.g. *dibujar un círculo/ dibujar círculos* 'to draw a circle'/ 'to draw circles') (Zagona). Therefore, the way in which the duration of an event is perceived depends on a variety of factors, such as temporal and other adjuncts, previous context, stylistic conventions, and of course, the inherent lexical aspect of the event, i.e. the VP.

To summarize, lexical aspect and the distinction among predicate classes is construed in the 'Inner Aspect' Phrase, and specifically lexical perfectivity or telicity is a compositional property of verb phrases. Grammatical or syntactic aspect, which assigns the morphology for the perfective and imperfective tenses, is construed in Outer Aspect Phrase.

2.2.4 Associated features

In addition to the differences of the encoding of grammatical aspect between English and Spanish mentioned in Chapter 1, Giorgi and Pianesi argue that the verbal features associated with the morphemes in each language differ as well (1997). Unlike Spanish, which contains complex words that consist of categorically distinct lexical morphemes and inflections, English contains many words that are categorically ambiguous. For example, the following words can be either nouns or verbs: *dream, dress, fall*. Furthermore, of the lexical items that are associated with verbal features, there are many in English that express one of several values. *Eat*, for example, can be used as an infinitive, first or second person singular marker, or first, second or third person plural marker. In Spanish, on the other hand, these "naked" forms, as Giorgi and Pianesi describe them, do not exist (1997:163-4). All Spanish verbs must be inflected for person, number and tense, and in addition, there are no nouns that can be verbs, unlike in English. Giorgi and Pianesi cite this as the main difference between Romance (or in the present case, Spanish) and English; while the verb in Romance contains the inflectional features [person, number], English verbs lack these features.

In order for the derivations to converge, in both English and Spanish it is necessary to associate the categorial features with the verbal forms in order to identify verbs as verbs. The word *comemos* (we eat), for example, corresponds to the feature bundle [+V; -N; 1st Pers; Plur...], which makes it recognizable as a verb. But as Giorgi and Pianesi argue, *eat*, on the other hand, is not associated with any visible features corresponding to inflectional morphology. However, if the form *eat* alone enters the derivation without any further specification, the derivation cannot converge because the categorial features on AGR cannot be checked (1997:164).

In order to explain how the derivations of English verbs converge, Giorgi and Pianesi propose that in addition to the features [+V; -N], eventive verbs (i.e. activities, accomplishments and achievements) in English are also associated with the aspectual feature [+perfective] (164). Based on an analysis of the present tense with eventive predicates, English verbs acquire categorial features by being associated with this feature. In English, the continuous reading is not normally available in (14), but is available in the Spanish example in (15), as it describes an action in progress:

(14) #Mary reads a book right now.

(15) María lee un libro en este momento.

English requires the progressive aspect to express the continuous reading in the present (*Mary is reading a book right now*). Spanish, however, can use either the present tense, as in (15) or the present progressive (*María está leyendo un libro en este momento*) for the continuous reading. Giorgi and Pianesi argue that the particular interpretive

properties of the present tense are determined by the morphosyntactic properties of the naked form of the English verb.

During the derivation, the English verb checks its categorial features at Inner AspP, which also bears the features [+perf; +V; -N]. Since the features are checked and then erased, the derivation converges. This systematic association with [+perfective] allows verbs to acquire the categorial features that distinguish them from nouns.[8]

According to Giorgi and Pianesi, since Spanish has the grammaticalized contrast of the perfective and imperfective, unlike English, it does not require the features [+/- interpretable] as part of its feature specification of verbs as lexical items. Instead, these features are associated with the overt tense morphology. Since some of their details regarding the feature strength of the [perfective] feature are somewhat vague, Montrul and Slabakova (1999) speculate that the [+/-perfective] features are checked overtly in the Outer AspP through the preterit and imperfect morphology. English, in contrast, only checks the feature [+perfective] in Outer AspP via the simple past tense morphology. Therefore, as Montrul and Slabakova point out, the difference between English and Spanish lies in the feature composition and values of the aspect phrases.[9] The following charts summarize these differences (Montrul & Slabakova):

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[8] Giorgi and Pianesi claim that all verbs in English are assigned the value [+perfective] and that [-perfective] does not correspond to any morpheme, meaning it is never assigned in any language. Instead, they believe that it is merely a default value because all eventive verbs are [-imperfective].

[9] Further investigation is necessary on Outer AspP in English and how it reads Inner AspP to assign the imperfective morphology. What is of main concern here are the features associated with Spanish Outer Aspect Phrase.

(16) Verbal features for eventive verbs at Inner AspP

English Verbs	Spanish Verbs
+V, -N	+V, -N
+perfective	person
	number

(17) Aspect formal (F) features and morphology (M) paradigms for Outer AspP

English AspP		Spanish AspP	
F-features:	M-paradigm:	F-features:	M-paradigm:
+perfective	Simple Past	+perfective	Preterit
		-perfective	Imperfect[10]

The feature composition for states in English is difficult to determine since they must be modified using the simple past, whose feature is [+perfective] (or [+FINAL]). Despite their modification with the [+FINAL] morphology, their open interpretation is inherently [-FINAL]. Therefore, I argue that in addition to the features mentioned in (16) and (17), [-FINAL] is also checked in the English Aspect Phrases, but for states only.[11]

2.3 Summary of L2 acquisition process

The acquisition of L2 functional categories depends on two major steps: the first involves acquiring the category itself, which may or may not be found in the L1. The second involves acquiring the language particular formal features that correspond to that functional category, as well as the morphemes to which they are mapped.

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[10] Recall that Zagona (1994) uses the term [+FINAL], which is equivalent to Montrul and Slabakova's feature [+perfective]. Zagona argues that [+FINAL] is assigned with the preterit morphology at the Spec of Outer AspP. For the imperfect morphology, no feature is assigned. Only [-FINAL] is assigned at the Spec of Tense.

[11] See Footnote #8.

In the case of aspect, since English contains Inner AspP, L1 English learners of L2 Spanish already have Inner Aspect in their L1. Therefore, assuming L1 transference takes place, they do not need to establish this functional category in the L2. The next step then is to acquire the formal features associated with Inner AspP. If Giorgi and Pianesi's (1997) assumptions are correct, the L2 learners must disassociate the feature [+perfective] with English eventive verbs and acquire the features [person] and [number] associated with Spanish agreement. As in the English L1, the initial and final subevents, E_1 and E_2, are then assigned (or not assigned) according to the (a)telicity of the VP.

With respect to Outer AspP, the L2 learners must acquire the appropriate morphological distinction between the preterit and the imperfect tense morphology and how to correctly map (or check and delete) the formal features [+FINAL] at the Spec of Outer AspP and [-FINAL] at the Spec of Tense to preterit morpho-phonology or just [-FINAL] at the Spec of Tense to imperfect morpho-phonology. An incorrect mapping of these features will lead to a misreading of the (a)telicity of Inner AspP:

(18) Ayer yo *cenaba por tres horas.
yesterday I eat dinner-IMP-1st-s for three hours
'Yesterday I was eating dinner for three hours.'

The temporal adverb *ayer* 'yesterday' and the adjunct *por tres horas* 'for three hours' establish a telic event. Therefore, in order to map the preterit morphology, the verb must check the feature [+FINAL] at the Spec of Inner AspP and then first check [-FINAL] at the Spec of TP and then [+FINAL] at the Spec of Outer AspP. In (18), however, instead

of checking [+FINAL] at the Spec of Inner AspP, [-FINAL] was checked, and as a result, [+FINAL was not checked at the Spec of Outer AspP.

2.4 Conclusion

The purpose of this chapter has been to provide a syntactic analysis of aspect as a functional category, using the theoretical framework of the Minimalist Program. Section 2.1 summarized the role of functional categories within the Minimalist Program and discussed their responsibility in driving syntactic movement. Section 2.2 described the functional categories, Inner and Outer Aspect Phrases, as well as their syntactic representation. Their corresponding formal features were then summarized in order to explain the process of how Outer Aspect Phrase reads off of Inner Aspect Phrase to assign the appropriate morphology. Finally, Section 2.3 analyzed the process for English L1 learners acquiring L2 Spanish aspect.

There are a number of possible factors that determine the aspect of a given situation. The challenge for the L2 learners during the assignment of aspectual features, then, is sorting through all of the various factors and then mapping the proper morphological features at Outer Aspect Phrase. The question that remains is, are there some factors that are more persuasive than others? For example, will the L2 learners only be influenced by the inherent lexical aspect of the VP or do they take all of the factors into consideration? This will be the next topic of discussion in Chapter 3 when the past and current findings in SLA research on aspect will be presented.

Chapter 3: Past and Current SLA Theories on the Acquisition of Aspect

3.0 Introduction

The acquisition of aspect in both FLA and SLA has been a major area of investigation for the past 15 to 20 years. Specifically in SLA, researchers have been concerned with the development of tense/aspect morphology in instructed learners (Hasbún, 1995; Lafford, 1996; Liskin-Gasparro, 1997; Ramsay, 1990; Salaberry, 1997, 1999) and naturalistic learners (Andersen, 1986). The main focus of these studies has been to evaluate the Primacy of Aspect Hypothesis (Andersen, 1986), which posits that verbal morphology initially encodes lexical aspect rather than tense in developing grammars, and that the choice of grammatical aspect depends on the inherent lexical aspect of the VP.

This chapter will provide a summary of the past research involving the acquisition of L2 aspect, as well as current research, which involves the acquisition of aspect as a functional category with formal features. Section 3.1 describes the Primacy of Aspect Hypothesis (POA), the predominant hypothesis proposed for the acquisition of L1 and L2 aspect, which claims that in the initial stages of acquisition, tense/aspect markers are limited to restricted classes of verbs. The Distribution Bias Hypothesis (DBH) (Andersen, 1986c, 1988, 1993) will then be presented to explain how the POA phenomenon takes place. Andersen argues that the distributional bias in native speakers' speech influences the learners' choice of aspectual morpheme. Section 3.2 will discuss the problems with the POA and DBH for L2 acquisition. Existing data from various

studies illustrates that beginning and intermediate learners are incapable of simultaneously tending to form and meaning in the input they receive (VanPatten, 1990). Finally, Section 3.3 will summarize the most current research in SLA on the acquisition of functional categories, including the five positions on the access to functional categories and the ability to acquire their formal features: Minimal Trees (Vainikka, 1993/94; Clahsen, 1990, 1992)/ Weak Continuity (Vainikka & Young-Scholten, 1994, 1996a, 1996b) Hypotheses, Full Access/Full Transfer (Schwartz and Sprouse, 1994, 1996; Schwartz, 1996), Weak Transfer Hypothesis (Eubank, 1992, 1993/94, 1994), the Failed Functional Features Hypothesis (Hawkins and Chan, 1997), and the Missing Inflection Hypothesis (Haznedar, 1997) and defective feature mapping (Lardiere, 1998a, 1998b; Schwartz and Sprouse, 1994, 1996; Lardiere and Schwartz, 1995). Although very little research has been conducted specifically on the acquisition of L2 aspect as a functional category, as it will be seen here, the general principles of functional category acquisition easily lend themselves to the present discussion.

3.1 Previous studies on aspect in FLA and SLA

3.1.1 Primacy of Aspect Hypothesis

Studies on the acquisition of aspect in FLA have consistently observed that in the early stages of the acquisition of verbal morphology, L1 learners use tense-aspect markers selectively according to the inherent lexical aspect of the verb to which the marker is attached (Andersen, 1989, 1991). This phenomenon of limiting tense-aspect markers to a restricted class of verbs is known as the Primacy of Aspect (POA).

Andersen and Shirai summarize the descriptive claims of the POA hypothesis as follows (1996:533):

> 1. Children first use past marking (e.g., English) or perfective marking (Chinese, Spanish, etc.) on achievement and accomplishment verbs, eventually extending its use to activity and stative verbs.
>
> 2. 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 verbs, then extending to accomplishment and achievement verbs.
>
> 3. In languages that have progressive aspect, progressive marking begins with activity verbs, then extends to accomplishment or achievement verbs.
>
> 4. Progressive markings are not incorrectly overextended to stative verbs.

In order to investigate the predictions of the POA Hypothesis, studies have concentrated on the acquisition of lexical aspect using data from oral and written production. Researchers have used a variety of techniques, such as oral interviews, movie narratives, retelling of stories in role-play situations, etc. to look at the aspectual classes of the verbs produced by the subjects based on Vendler's (1967) four-way classification, and the morphology they apply to each aspectual class.

Although they cite a few studies that disagree with the POA Hypothesis, Andersen and Shirai are able to cite roughly nine cases from eight different languages, including Spanish and English, that support it for FLA (1996:535-7). They believe that many of the studies performed in general are not reliable due to various factors, such as different methodologies based on different frameworks, lack of consistency in the use of terminology when referring to different concepts related to aspect, lack of accuracy in the

classification of verbs, and interpretation problems created by the different tasks used in studies (1996:541-3).

With respect to SLA, Andersen (1991) argues that L2 learners follow a particular sequence in the development of aspectual markers: ∅ → punctual → telic → dynamic → statives. For the development of past tense verbal morphology in Spanish, he proposes the following sequence of states (1986a, 1991): the use of the imperfect extends from stative verbs to non-stative verbs, and the use of the preterit extends from punctual verbs (achievements) to non-punctual verbs (up to stative). Andersen and Shirai (1994) have expanded the framework to include such factors as distributional biases in the input (discussed below) and discursive factors.

Andersen and Shirai also summarize the studies performed on adult L2 learners (in both the naturalistic and classroom environments) and state that in general, their results support POA (1996:543). With respect to the acquisition of L2 English, the data based on L1 speakers of various languages show that past morphology is strongly associated with "durative" verbs (i.e. stative, activity and accomplishment). One main difference that was found, however, was the tendency of adult L2 learners to overextend the use of the progressive with stative verbs, which does not take place in L1 acquisition. In the studies on L2 Spanish, Ramsay (1989a, 1989b, 1990) and Andersen (1986a, 1986b, 1986c, 1991) found that the past perfective emerged first, and in order of achievements, accomplishments, activities, and then statives, while the imperfective past, which had a slower development, emerged in order of statives, activities, accomplishments, and then achievements.

3.1.2 Distributional Bias Hypothesis

In order to explain the POA phenomenon in both FLA and SLA, Andersen (1986c, 1988, 1993) claims that there is a distributional bias in the native speakers' speech addressed to L1, as well as L2 learners. Children and adult learners initially use verb morphology in accordance with the skewed distribution in the input they receive. Therefore, if native speakers use the verbal morphology in a biased manner so that it is consistent with POA, language learners will do the same.

Andersen and Shirai (1996) point out that only a few studies have been made regarding the relationship of native speaker input to POA, but they all support the DBH. They state that not only has a correlation been found between the morphology and inherent aspect in mothers' speech to their children (Shirai, 1991; Stephany, 1981; Brown, 1973; Ramsay, 1989b), there is also a similar correlation between adult native speakers in their speech and written narrative (Stephany, 1981; Ramsay, 1989b; Gonzales, 1990; Leone, 1990; Shirai, 1990; Takahashi, 1990; Takashima and Kamibayashi, 1990; Yap, 1990). Stephany emphasizes, however, that the distribution bias is more "dramatic" in child-directed speech than in adult-directed speech, and that "mothers restrict the number of grammatical categories used as well as the frequency of certain of these categories" (1981:55).

3.2 Problems with the DBH and POA for adult L2 acquisition

There are several problems regarding the application of the DBH to SLA. In the first place, there are not any studies that specifically analyze the native speaker speech directed towards adult L2 learners. The only ones involving L2 learners have all been

with children, which implies possible differences in context and conversation than with adults. For example, as Andersen and Shirai themselves admit, the restricted use of verbal morphology may be due to context or topic. In child-directed speech, mothers may unconsciously avoid certain topics, such as those that involve past habitual references, because they may be too complex, both cognitively and linguistically (1996:553). Since an adult L2 learner has already acquired the concept of aspect, those same mothers or other adult natives might not avoid habitual actions when speaking with an adult learner.

Another problem with the DBH in SLA is the fact that current studies on morpheme acquisition illustrate that many beginning and even intermediate language learners are not capable of simultaneously tending to form and meaning in input. Based on the results of a listening comprehension experiment which controlled for attention to meaning alone, as well as for simultaneous attention to meaning and verb form, VanPatten (1990) finds that grammatical morphemes "escaped" the attention of L2 learners of Spanish when their task was to process input for meaning. In the case of aspect, then, instead of listening for the perfective and imperfective morphemes, L2 learners of Spanish would first focus on the lexical stem of the verb for meaning, and then, most likely, listen for adverbs or other temporal references. If the morphemes go unnoticed, they never get associated with the lexical aspect of the stem to which they are attached. Therefore, if VanPatten's results are accurate, adult L2 learners are unable to process the biased connection between the lexical and grammatical aspect in the input they receive.

An additional problem is with the various data collected that contradicts the DBH, as well as POA. Although they do not make any reference to the input in their investigation of L1 speakers of Germanic languages learning Spanish, García and v. Putte (1988) found that the one-to-one match up of lexical aspect with the corresponding morphology does not take place during the initial, but rather the advanced stages of SLA. Salaberry (1999) also found that at the beginning stages, the use of past tense morphology in L2 Spanish is independent of the effect of inherent lexical aspect. He claims that the highest association of atelic verbs with the imperfect and telic verbs with the preterit occurs amongst the advanced students. The results of Hasbún's (1995) analysis of the written discourse of beginning and intermediate learners of L2 Spanish did not show a spread of the preterit from telic to atelic events and later to stative verbs as Andersen (1986, 1991) argues. Instead, he found that the first uses of the preterit occurred with statives, followed by accomplishments and activities at the initial stages (in this case first year Spanish). At the second year, all four classes of verbs were marked with the preterit. Statives, however, were mainly marked with the imperfect. He concluded that it was impossible to "unequivocally" place the students in any of the stages posited by Andersen.

Another counterexample to POA, which Andersen and Shirai (1994) point out is the data found by Meisel (1987) who studied L2 learners of German. Meisel states that learners do not systematically use an aspectual system and believes that the POA phenomenon has received too much attention in SLA by researchers who base their expectations on findings in L1 studies. Andersen and Shirai, however, do not consider

Meisel's study to constitute a problem because the aspect hypothesis only concerns the acquisition of morphology, and Meisel focused on the encoding of past tense in conjunction with adverbials and discourse organization. In other words, this "very different" framework is not related to the original investigation of POA. What is obvious from this argument is that Andersen and Shirai have ignored the important reality, which has already been argued here, that aspect is compositional. It does not only consist of inherent lexical aspect, but also its association with temporal references, the perspective of the speaker, discourse, etc. The lexical aspect cannot be isolated because there are simply too many factors that cannot be ignored.

Montrul and Slabakova (1999) point out that the data collected by the various studies on POA and the DBH only concentrate on production data and not interpretation data. They argue that production data cannot be used reliably to make inferences about the acquisition of other possible related factors, such as functional categories and semantic implications. Since the acquisition of a functional category entails much more than learning its morpho-phonology, production data alone is not sufficient to determine whether the formal features and the various interpretations associated with the functional category have been successfully acquired.

An important issue that the DBH makes no mention of is the fact that adult L2 learners already have a developed system of lexical aspect in their L1. As Andersen and Shirai illustrate, native speakers follow the aspect hypothesis as a "strong statistical tendency" rather than a strict absolute adherence (1994:146). Unlike early L1 learners who initially internalize the unmarked, prototypical uses, adult speakers are less

conservative because they have already acquired and also created the marked functions for tense and aspect. They therefore display a more diverse repertoire of forms and functions. Adult L2 learners also have already acquired these marked forms in their L1. In other words, they are already aware that although it is more natural to match up grammatical and lexical aspect, it is possible to mismatch them, as well. The bias may be more of the norm, but it is not a fixed rule. It is possible, then, that like the native speakers, they do not feel compelled to adhere to POA and that they transferred this relaxed adherence from their L1.

Finally, another issue that the DBH ignores is L1 transference. It is commonly seen that L2 learners depend on L1 transference as a learning strategy when acquiring an L2. Spanish uses distinct synthetic morphemes to express both imperfective and perfective aspects. Since English uses modals to express the imperfective aspect and synthetic morphemes (the simple past) to express the perfective aspect, the L1 English learners are likely to overuse the synthetic forms that are shared by both languages. Therefore, it is possible that the preterit becomes a "default" tense, regardless of the inherent lexical aspect of the verb.

3.3 Current research in SLA

Current research in language acquisition is interested in the availability of functional categories in the initial states of L1 and L2 grammar. For L1 acquisition, there are two main hypotheses regarding the availability of functional categories. The Discontinuity Hypothesis (Radford, 1990) argues that child L1 learners experience a period of "telegraphic speech" which is marked by the absence of tense, auxiliaries,

determiners, possessives, prepositions and subject. The L1 syntax therefore only contains lexical categories and will eventually acquire functional categories as the L1 learner matures and gradually acquires inflection. The Continuity Hypothesis (Weissenborn, et al., 1992; Lust et al., 1994), on the other hand, argues that instead of being totally absent from the early grammar, functional categories are underlyingly present and superficially absent. Although documented evidence demonstrates the clear absence of functional categories in L1 speech production, whether they are underlyingly present or not is not so clear.

According to cross-linguistic evidence, in the L1, the acquisition of syntactic movement is chronologically linked to the morphological phi-features (Hyams, 1986; Pierce, 1992; Lust et al., 1994). Once these features are in place, subject and verb raising can occur. This same assumption is not so clear, however, in L2 acquisition. Researchers continue to debate the relationship between the role of functional categories and morphological acquisition. While some believe there is a link between the [-interpretable] strong features and the [+interpretable] morphological features (Eubank, 1993/94; Vainikka and Young-Scholten, 1996, 1998), others claim there is no such link and that the morphology develops independently of the syntax (Schwartz and Sprouse, 1996; Lardiere, 1998a, 1998b). While linked morphosyntax is apparent for L1 acquisition, this is not so apparent for L2 acquisition.

Error production in morphological acquisition, in particular verbal inflectional morphology, is often associated with either the lack of functional categories or their lack of projections (i.e. the [-interpretable] strong F_V morphological features). In other words,

missing or defective morphology may be the result of the absence of functional categories and their feature strengths in the early L2. Parameter setting in the L2 cannot take place until the morphological features of the functional categories have been acquired. In the case of the Null Subject Parameter (discussed in Section 1.1), for example, an L1 English learner of L2 Spanish will not be able to acquire the settings for the optional subject and the *that trace* clustering effects until the features for person and number have been acquired. There are several hypotheses that make assumptions regarding the availability of functional categories and their formal features, as well as the independence of morphology and syntax. The following sections discuss five of the leading hypotheses regarding their availability in the L2.

3.3.1 Minimal Trees Hypothesis and Weak Continuity Hypothesis

One hypothesis that argues for the morphosyntactic link is the Minimal Trees Hypothesis (Vainikka & Young-Scholten, 1994, 1996a, 1996b), which incorporates the Weak Continuity Hypothesis (Vainikka, 1993/94; Clahsen, 1990, 1992). According to the Weak Continuity Hypothesis, the only categories available in the initial L1 grammar are lexical categories. Functional categories are initially absent and only emerge via positive evidence from the input. The Minimal Trees Hypothesis states similarly that in the initial L2 grammar, only the lexical categories and their projections transfer from the L1 into the L2. If their characteristics, such as headedness, do not match with those of the L2, they switch in response to L2 input. Functional categories, on the other hand, do not transfer into the L2. They are acquired gradually based on L2 input and access to

UG. Finally, once the morphology has been acquired, movement associated with specific functional categories can take place.

The evidence that supports the Minimal Trees Hypothesis comes from L2 learners of German who were native speakers of various L1s. Vainikka and Young-Scholten claim that they found no evidence for IP, CP, agreement, complementizers, verb raising or overt subjects in the initial production. They also found that L1 functional categories do not transfer from the L1 and that the lexical characteristics exhibited are the headedness characteristics of the various L1s.

The evidence that argues against the Minimal Trees Hypothesis is both theoretically- and empirically-based. First, Schwartz and Sprouse (1996) point out that the idea that only part of the L1 grammar transfers is problematic due to the modular nature of language acquisition. Language represents the interface of several modules or components that work together, such as morphology, semantics and syntax. Once they have been established in the adult L1 grammar, they cannot be separated or isolated. Prévost adds that it seems "implausible that (L2 learners) should regress to a stage where no such category is posited" (1997:80). A more obvious problem with this hypothesis is the fact that some of the early sentences from Vainikka and Young-Scholten's own data display evidence of functional categories, such as verb-movement, auxiliaries and agreement markers. As Prévost notes, even though this evidence may not be great, there is still enough to disprove the existence of a purely lexical stage (1997).

3.3.2 Full Access/ Full Transfer

Contrary to the Minimal Trees Hypothesis, the Full Access/Full Transfer Hypothesis (FA/FT) (Schwartz and Sprouse, 1994, 1996; Schwartz, 1996) claims that the entire L1 grammar initially transfers over to the L2. Instead of only having access to the lexical categories, the adult L2 learner also has access to the functional categories and feature strength, as well. In other words, while inflectional morphology does not transfer, the abstract feature specifications and syntactic consequences do. The L2 learner then has to learn how the features are realized morpho-phonologically. In addition, the L2 learner has full access to UG, which allows the restructuring of the interlanguage (IL) to take place when the input does not match the L1 values.

The FA/FT Hypothesis is more appealing than the Minimal Trees Hypothesis for various reasons. First of all, it avoids the problem of how functional categories would eventually develop in the L2 grammar. More importantly, it accounts for the appearance of functional categories and verb-movement in early production. For the FA/FT Hypothesis, the acquisition of L2 morphology is not linked to syntactic development. Therefore, the activation of functional categories is not dependent on the acquisition of morphology alone.

The problem with the FA/FT Hypothesis, however, is that it does not account for the data where no functional category appears to be involved in early L2 production, for example in the production of nonfinite verbs occurring as main verbs. In addition, it cannot explain the randomness of production in early L2 stages. For example, if the functional categories are available and there is evidence of verb raising, this movement

should systematically take place (Prévost, 1997). White (1992), however, finds that this was not the case in her study on French speakers learning English. According to the FT/FA Hypothesis, the French speakers should have initially exhibited systematic verb movement, as they do in French, because they transferred the L1 properties over to the L2. Her subjects did not consistently display this movement during their initial L2 production.

3.3.3 Weak Transfer Hypothesis

In contrast to the extremeness of the previous "all-or-nothing" hypotheses regarding the availability of functional categories, Eubank (1992, 1993/94, 1994) claims that L2 initial grammars are "defective." In his Weak Transfer Hypothesis, he proposes that both lexical and functional categories, along with their headedness are transferred from the L1, but the features associated with the functional categories do not transfer. In other words, feature strength is left either underspecified or inert in the early stages of L2 acquisition. As a result, the L2 learners will randomly select features until the L2 input and UG help guide the learner to the correct target forms. Eubank claims that features are initially underspecified because they are based on the morphology. Since the inflectional paradigms do not transfer to the L2, features do not transfer either. As soon as the morphology is acquired, functional category projections and feature specification can take place in the syntax. The example that Eubank et al. (1997) provides is of early L2 learners of English who have not yet acquired the weak English agreement paradigm that only marks nonpast 3sg verbs. Their IL contains features that may be correct and incorrect or features that do not resemble the L1 or L2 values. In terms of the Minimalist

Program, since they have not yet acquired the feature [-strong], their IL should contain sentences that equally raise and do not raise the verb to I (despite the fact that neither the L1 or the L2 permit this). Once they acquire 3sg *–s* affixation, the [inert] AGR value should be replaced with [-strong] and they will not permit verb raising. Therefore, unlike the FT/FA Hypothesis, under the Weak Transfer Hypothesis, the acquisition of morphology and syntax are linked and the L2 grammar develops both in tandem.

Eubank and Beck (1998) argue that just as children do in L1 acquisition (Wexler, 1994), adults persist in alternating root infinitives with tensed verbs even when they have mastered the inflection for a given verb. This Optional Infinitive (OI) stage represents a period of underspecification that persists until the L2 learner has received enough input to correctly assign the values of the formal features. By the end of the article, however, they reject this idea.

One of the benefits of the Weak Transfer Hypothesis is that it addresses the optionality of syntactic movement due to the lack of inflection in L2 production. In addition, as with the FT/FA Hypothesis, there is no need to explain the eventual development of functional categories in the L2.

Prévost (1997) points out, however, that Eubank's proposal is not flawless. First of all, it seems illogical that if features are an intrinsic part of the L1 grammar, they should also transfer along with the functional categories. In addition, Schwartz and Sprouse (1996) argue that feature strength is an abstract property of the grammar and not of morphology. So, the fact that the inflectional paradigm does not transfer should not interfere with the possible transfer of features. Lardiere (1998b) adds that Eubank's data

shows that the intermediate and advanced learners accepted English sentences with raised verbs, despite the fact that they had already acquired the morphology. Finally, Prévost argues that the actual data presented by Eubank can be analyzed in terms of L1 transferred features, thus contradicting the hypothesis.

3.3.4 Failed Functional Features Hypothesis

According to the Failed Functional Features Hypothesis (Hawkins and Chan, 1997), access to new parametric options for functional categories and their corresponding formal features is no longer available in L2 acquisition after a critical period, but the principles to UG are. L2 learners may be able to map features from the functional categories in their L1 to the L2 categories, but they do not have access to the L2 features. Beck (1997) and Eubank, Beck and Aboutaj (1997) argue similarly that the knowledge of feature strength becomes 'impaired,' which in the case of verb raising results in permanent optionality of verb raising in the L2 even if the morphology is eventually acquired. Like Smith and Tsimpli (1995) and Tsimpli and Roussou (1991), Hawkins and Chan argue that the presence of overt morphology in the IL production does not entail knowledge of the L2 formal features. In other words, the L2 learners are able to develop or even master the L2 morphology, but they map L1 features to those morphemes.

The evidence Hawkins and Chan provide is of advanced Chinese learners of L2 English who are able to learn CP morphology but are unable to reject subjacency violations because their mental representation does not involve wh-operator movement triggered by the features [±wh]. The intermediate learners, however, were more sensitive to subjacency violations because they were using another operation allowed by their L1.

Beck (1998) predicted that the beginning and advanced learners of L2 German, a verb raising language, in her study would not differ significantly from one another in their performance on verb raising. She believed that they would allow it but not require it, and therefore perform quite differently from the native control group. Contradictory evidence comes from Beck's own study. In reality, her predictions did not pan out. Like the native controls, the less proficient learners demonstrated a preference for the sentences with raised verbs. Interestingly, the more advanced learners indicated no preference for raised or unraised verbs.

3.3.5 Defective feature mapping and the Missing Inflection Hypothesis

A number of scholars argue that syntax and morphology develop independently of one another, and that in some cases, the knowledge of syntax may occur long before the acquisition of morphological paradigms (Lardiere, 1998a, 1998b, Gavruseva and Lardiere, 1996; Haznedar and Schwartz, 1997; Herschensohn, 2000b; Schwartz and Sprouse, 1996). Based on the data she collected from an L2 learner of English, Lardiere (1998a; 1998b) argues that morphological realization does not truly represent the types of syntactic movement and functional projections that are available. In fact, she claims that even in the cases where verbal morphology is never acquired, the learner is still able to determine the feature strength of the functional categories. In her study, the L2 learner exhibited full functional category projection despite her highly impoverished inflection. Lardiere therefore disagrees with the Minimal Trees Hypothesis and Eubank's assumption that morphology is linked to syntactic movement. What she proposes instead is that there is a deficiency in the mapping of feature to form in L2 production. In other

words, all of the categorical features are present and accessible to the L2 learner. What causes their lack of representation in the L2 input is the failure to assign the features to their corresponding morphemes, for example, verbal affixes. For Lardiere, the L2 grammar is only limited in morpholexical aspects (i.e. the complete specification of features for a given lexical item). It is not limited in syntactic aspects, meaning defective functional categories with missing or unspecified formal features. Lardiere and Prévost and White (2000) attribute defective morphology to processing difficulties, not to defective syntax. In addition, Schwartz and Sprouse (1994, 1996) and Lardiere and Schwartz (1995) argue that L1 transference initially takes place and that the eventual knowledge of formal feature values and functional categories is available.

A similar approach to Lardiere's deficiency in feature mapping is the Missing Inflection Hypothesis (Haznedar, 1997). Under this hypothesis, L2 learners have complete functional projections in their grammar but incomplete morphology. Instead of representing a mismatching of phi features in the syntax, the missing overt morphological features may be phonetically unrealizable in fossilized grammars with impoverished syntax.

Supporting evidence for Lardiere and Missing Inflection comes from Herschensohn's (2000b) data collected on two beginning L2 learners of French. In her study on the acquisition of verb morphology, the subjects displayed various infinitives for inflected forms in their oral production, as well as correctly inflected forms for both the regular and irregular verbs in the past, present and future tenses. Unlike the OI stage in L1 acquisition, their production does not demonstrate a clear stage of "bare" syntax

because of their high percentage of correct suppliance of verbal inflection in obligatory context. Herschensohn points out that even in the initial stages, the subjects use finite forms, which proves they have already established higher functional categories, such as Tense and Agreement. In addition, they displayed correct use of negation, which implies that they have learned to raise the verb. Therefore, even though they have not fully mastered the morphology, they still display syntactic movement, thus disproving the morphosyntactic link. The development of morphology instead parallels the acquisition of syntax. The defective inflection in the L2 does not imply defective or missing syntax. In other words, the link that exists between morphology and syntax acquisition (i.e. the link between phi features and strong categorical features – Chomsky, 1995), does not exist in L2 acquisition.

The following chart summarizes the claims of the five previous hypotheses regarding the access to functional categories in the L2:

(1) Access of functional categories in SLA

HYPOTHESIS	L1 TRANSFER OF FUNCTIONAL CATEGORIES	MORPHO-SYNTACTIC LINK	EVENTUAL ACCESS TO FUNCTIONAL CATEGORIES AND FEATURES
Minimal Trees/ Weak Continuity	none	yes	yes
Full Transfer/ Full Access	total L1 transfer	no	yes
Weak Transfer	categories transfer, not features	yes	yes
Failed Functional Features	total L1 transfer	no	access only to categories, not to L2 features
Defective Feature Mapping/ Missing Inflection	total L1 transfer	no	yes

3.3.6 Acquisition of aspect in terms of functional categories

The above hypotheses make different predictions with respect to the acquisition of functional categories, formal features, L1 transference and the link between morphology and syntax in L2 acquisition. Therefore, each proposal would predict different problems for the acquisition of L2 aspect and its associated morphological and semantic properties by English L1 speakers.

The Minimal Trees/ Weak Continuity Hypothesis predicts that the L2 learners would not transfer the categories Inner and Outer Aspect Phrases, nor their corresponding formal features from the L1 into their IL production. In other words, they would not carry over the feature [+perfective] associated with English verbs. Instead, once they received sufficient input from the L2 and mastered the L2 morphology, they would

associate [number] and [person] with Spanish verbs and then [-FINAL] with the imperfect and [+FINAL] with the preterit at Outer Aspect Phrase. These hypotheses would predict total access to the L2 feature strengths and categories.

The FT/FA Hypothesis predicts that the L2 learners would initially transfer both aspect phrases and their L1 formal features over to the IL. Therefore, they will be highly constrained by the L1 early on and most likely at the intermediate stages as they attempt to learn the appropriate morpho-phonology associated with the preterit and the imperfect. In the case of the feature [+perfective], the early L2 learner would associate this feature with all eventive verbs, and as a result, overuse the preterit. In addition, with stative verbs, they would only apply the preterit since states do not allow progressive morphology in English. Advanced learners, on the other hand, would be able to eventually reset the values and successfully acquire the perfective/imperfective semantic opposition.

According to the Weak Transfer Hypothesis, the L2 learners would transfer the L1 aspect phrases to the IL but would not transfer the associated features. The feature strength for the preterit and the imperfect would remain underspecified or inert in the early stages, thus causing the L2 learner to randomly inflect the verbs with both tenses. As they eventually acquire the morphology for both, they will establish the category projections for both aspect phrases and their feature specifications.

The Failed Functional Features Hypothesis would predict that the L2 learners would successfully display both the preterit and imperfect morphology in their IL production, but they would be specified with the L1 values only. In other words, they

would not be able to acquire the feature [-FINAL] associated with the imperfect. Therefore, they would not be able to acquire the semantic contrast between the two tenses. Any correct display of morphology in the given context would occur completely at random.

Finally, the Missing Inflection Hypothesis and Lardiere's proposal of defective feature mapping would predict that syntactic movement and accessibility to the aspectual categorial features is available for L2 learners. As predicted under the Full Transfer/ Full Access Hypothesis, learners would initially experience L1 transference and apply the [+perfective] value to eventive verbs. As they disassociate the L1 value throughout the intermediate stages, they would display defective forms, such as infinitives and other random non-finite morphemes, but they would still be aware of the abstract formal features [±FINAL] and their syntactic consequences. As a result, the L2 learners could randomly use the preterit or the imperfect, or even an infinitive in the cases when they are uncertain about the morphology. By the advanced level, they would successfully map the [±FINAL] features onto the past tense morphology and demonstrate target-like production.

3.4 Conclusion

This chapter explored the various theories regarding the L2 acquisition of Spanish aspect. The Primacy of Aspect Hypothesis, the most widely accepted for L1 acquisition of aspect, was presented in Section 3.1, along with the main responsible factor, the distributional bias in speech, which allows it to occur. Learners in the initial stages of

acquisition restrict tense/aspect markers to certain classes of verbs according to their inherent lexical aspect. The input the learners receive from native speakers, which also displays this distributional bias, further influences them in their use of morphology. Section 3.2 argued that POA does not appear to support or explain the acquisition of L2 aspect. The findings from various studies illustrate that early L2 learners do not assign the past tense morphology according to inherent lexical aspect. This phenomenon does not appear to occur until the learners are at the advanced stages and have had sufficient L2 input.

Section 3.3 proposed using current syntax theories to define the acquisition of aspect, the acquisition of functional categories and their associated formal feature strengths. Five hypotheses were presented which describe the different scenarios for the access to functional categories and feature strengths in the L2, as well as the importance of morphological acquisition in driving syntactic movement. Two of the five hypotheses, Minimal Trees/ Weak Continuity and Weak Transfer, posit that the acquisition of morphology is necessary in order for the categorical projections to take place. The FT/FA, Failed Functional Features and defective feature mapping/ Missing Inflection hypotheses argue that morphology and syntax operate independently of one another. Of the five hypotheses mentioned, only the Minimal Trees/ Weak Continuity claim that L1 transference does not take place in the L2. All of the hypotheses, except for the Failed Functional Features Hypothesis, propose that the L2 functional categories and feature specifications may be accessible in the L2.

Since no data was collected on the initial L2 grammar, I will focus attention in this present study primarily on the notion of feature underspecification. Therefore, I will limit the discussion of the data to the three hypotheses that treat the acquisition of formal features: Weak Transfer, Failed Functional Features and Defective Feature Mapping. The choice of using these three will determine three important factors: is there a link between morphology and syntax, does L1 transfer take place, and are the categories and their formal feature strengths accessible in the L2. The data presented in Chapter 4 (which will be analyzed in Chapter 5) will support Lardiere's proposal of defective feature mapping.

Chapter 4: Experiment and Data Results

4.0 Introduction

This chapter presents data obtained from a longitudinal study of five university students during a nine-month study abroad program in Cádiz, Spain. Their progress with the acquisition of Spanish aspect was monitored at five different stages throughout the scholastic year in order to observe their development. The students were asked to provide the correct past tense forms for the infinitives given in three two-page worksheets. In addition, four writing samples were collected approximately every two months in which the students recounted a recent event or story using the past tense.

Section 4.1 explains the experimental design and how the data was collected and interpreted. It then continues with a description of the students who participated in the study, as well as their L2 background prior to and during the study abroad program. The two sections that follow discuss the experimental results. Section 4.2 describes the morphology for the intermediate students and then the advanced students. Their use of person, number and verbal morpheme will be analyzed to determine whether or not they had acquired the past tense morphology. Sections 4.2.3 and 4.2.4 present the development of aspect at each stage for the intermediate and advanced students. In addition to the correct usage of aspectual opposition (i.e. completed event, action in progress, habitual action and future/intention event – see 1.1), the choice of aspectual morpheme will be analyzed using Vendler's (1967) four-way classification to determine whether or not the subjects adhere to Andersen's POA (1989, 1991).

4.1 Experiment and subjects

4.1.1 Experimental design

In order to investigate the POA Hypothesis and the functional category debate and to examine the development of IL aspect during the nine-month program, the study abroad participants were given three two-page fill-in-the-blank worksheets (Appendices 1-3) in which they had to give the correct past tense form of the infinitive provided. In addition to the three worksheets, four original writing samples were collected approximately every two months in which the students had to either recount a recent event that took place or tell some sort of story using the past tense. They were asked not to simply list a series of events, but rather provide some description and supporting detail. For both the worksheets and the writing samples, the students were asked not to consult any dictionaries or reference materials, and also not to ask for any help from other students or native speakers. The purpose of this second instrument was twofold. First of all, it allowed for original L2 production, which would reveal whether or not the students had other functional category projections, such as Tense and Agreement, and most importantly, if they could use the correct aspect in spontaneous production without being prompted. Second, this additional instrument would counteract the bias of a single measurement and provide further evidence regarding L2 acquisition. The worksheets serve as the main source of data, and the main function of the writing samples is to "triangulate" and corroborate the conclusions from the worksheets.

For the worksheets, no mention was made of any particular aspect to be used. The experiments were designed to contain habitual events (e.g. *I used to watch "Sesame*

Street" every day as a kid), events in progress (e.g. *I was taking a shower when the phone rang*) and future/intention events (e.g. *I was going to go to the party, but I had to study*), which required the imperfect, as well as completed events (e.g. *I slept three hours last night)*, which required the preterit. The specific verbs used for each worksheet were chosen based on their inherent lexical aspect. The three worksheets had a match up of 93%, 64% and 82% of inherent lexical aspect to grammatical aspect, respectively. The first worksheet had a deliberately high percentage in order to reflect the Distribution Bias Hypothesis that Andersen (1986c, 1988, 1993) argue to exist in native speaker speech (Appendix 1):

(1) Cuando yo estaba en la secundaria, mis amigos y yo salíamos mucho. Nosotros íbamos al centro comercial, jugábamos a los videojuegos, y de vez en cuando hacíamos fiestas.

when I be-IMP-1st-s in the high school my friends and I go out-IMP-1st-pl a lot we go-IMP-1st-pl to the mall play-IMP-1st-pl the videogames and of time and when make-IMP-1st-pl parties

'When I was in high school, my friends and I used to go out a lot. We would go to the mall, play videogames and every once in a while we would have parties.'

In this example, all of the verbs are inherently imperfect (*estar* is stative while *salir*, *ir*, *jugar* and *hacer fiestas* are activities). All of these events require the imperfect tense (*estar en la secundaria* is an event in progress while *salir mucho, ir al centro comercial, jugar a los videojuegos* and *hacer fiestas* are habitual events). The second worksheet had a much lower match up to determine if the subjects could be influenced by the inherent

lexical aspect despite the contradictory context that required the opposing grammatical aspect (Appendix 2):

(2) El primer año que yo estuve en la universidad fue un año inolvidable. Yo conocí a mucha gente, tomé muchos cursos interesantes e hice muchas cosas nuevas.

the first year that I be-PRET-1st-s en the university be-PRET-3rd-s a year unforgettable I know-PRET-1st-s a lot of people take-PRET-1st-s many courses interesting and do-PRET-1st-s many things new

'The first year that I was in college was an unforgettable year. I met a lot of people, took many interesting courses and did many new things.'

In this example, all of the events refer to completed events and therefore require the preterit. The verbs *estar* and *ser* are inherently stative, while *conocer a mucha gente*, *tomar muchos cursos* and *hacer muchas cosas nuevas* are inherently activities due to the complements *mucha gente* (mass noun) and the *muchos cursos* and *muchas cosas nuevas* (plurals). The final percentage at 82% was an intermediary percentage of match up that reflected a less extreme distributional bias than Worksheet #1, but higher than Worksheet #2 (Appendix 3):

(3) Cuando yo era niña, miraba mucho la televisión. Me fascinaban los dibujos animados más que todo. En la mañana salía de mi cuarto y los veía hasta que me dormía en la noche.

when I be-IMP-1st-s girl watch-IMP-1st-s a lot the television me fascinate-IMP-3rd-pl the drawings animated more than all in the morning leave-IMP-1st-s my room and them see-IMP-1st-s until me-reflexive pron. sleep-IMP-1st-s in the night

'When I was a girl I used to watch television a lot. I loved cartoons more than anything. In the morning I would go out of my room and watch them until I fell asleep at night.'

In this example, the narrarator describes what she loved as a little girl (*fascinar los dibujos animados* and *ser niña*, both events in progress). The habitual actions of watching t.v. (*mirar* and *ver*) are both inherently activities, while to leave (*salir*) and to fall asleep (*dormirse*) are inherently achievements. One-third of all the verbs in each worksheet were irregular in order to determine if the subjects had acquired both regular and irregular morphology. Of the irregular verbs, no obscure or uncommon verbs were used (i.e. in general, they were high frequency irregular verbs).

4.1.2 Subjects

One of the focuses of this study is to analyze the influence of informal, out-of-class contact with the target language on the development of L2 aspect. Spada (1985, 1986) and Freed (1990) classify two types of out-of-class contact: *interactive* refers to time spent speaking with native speakers, and *non-interactive* refers to time spent alone reading books, watching television, listening to music, studying the target language, etc. Both Freed and Spada find that intermediate-level learners, for example, whose classroom instruction is typically based on a combination of grammar and communicative approaches, benefit more from interactive out-of-class contact. Advanced or upper-level learners, on the other hand, benefit more from non-interactive out-of-class contact. Because of this distinction found between the benefits of out-of-class contact for each level of learner, the subjects here were deliberately chosen to represent both the intermediate and advanced levels.

There were a total of 57 students who participated in the study abroad program at the University of Cádiz. The students were required to have studied at least two years of

university level Spanish prior to participating in the program, so they were either at the third year or fourth year level upon arrival. During the program, students took a minimum of four classes per semester (one of which was a required grammar course). Other classes included Spanish history, the European Union, art history, Spanish literature, geography and civilization. These classes were reserved for program students only and were taught by locally hired instructors. All of the classes were conducted in Spanish. The program participants lived in university residences with Spanish university students. During their free time outside of the classroom, many of the students traveled in and outside of Spain, attended monthly program excursions around Southern Spain, participated in extracurricular activities, such as dance, ceramics and guitar, and had conversation exchanges with local students and university staff. Of those 57, only 15 studied all nine months. The remaining students participated in either the first semester or the second semester only.

The five students for this study were chosen based on their consistent participation throughout the study, the seriousness with which they took the experiment and their studies, and their overall attitude towards learning Spanish. All five students spent considerably more time interacting with the native Spanish speakers from their residences than the other ten year long students, who interacted more with the other American students on the program.

Of the five students chosen for the experiment, two were at the intermediate level Spanish (Kate and Alice), and three were at the advanced level (Mitch, Tim and Beth).[1] Their levels were determined by two main factors: their level of Spanish at their

[1] The names used here have been changed to protect the real identity of the program participants.

American universities, and their placement into the two grammar sections at the University of Cádiz. Two program instructors evaluated their L2 production based on their conversational skills during a brief oral interview, a listening comprehension test and an hour-long grammar exam that tested various constructions.

(4) Subjects' background in Spanish

Student	University level of Spanish completed	Total years studying Spanish	Time abroad
Alice	second year	4.25	-
Kate	second year	6	-
Mitch	third year	8	-
Tim	third year	5	2 weeks
Beth	third year	6	8 months

At the intermediate level, both Alice and Kate had just finished the second year of university level Spanish upon their arrival to Spain. Alice had also studied Spanish for one year during high school and one and a half years in junior high, for a total of 4.25 years of study. Prior to going to Spain, she had never lived abroad or participated in any type of language exchange or special tutoring. Kate studied Spanish in high school for three years and two years in junior high school for a total of six years of study. Like Alice, Kate had never lived in a Spanish-speaking country or participated in special programs before living in Spain.

At the advanced level, Mitch, Tim and Beth had all finished third-year Spanish and were about to enter fourth-year. In addition to the three years he studied during college, Mitch had also studied Spanish for three years in high school and two years in

junior high, for a total of eight years. He had never lived abroad before living in Spain. Tim had been studying university Spanish for one and a half years and had also studied it in high school for three and a half years and one month in junior high school, for a total of five years. Prior to living in Spain, he had lived with a family in Tijuana, Mexico for two weeks where he translated for his church group. Beth had studied Spanish at the university level for two years before the program began. She also studied it during high school for three years and junior high for one year, for a total of six years. In addition, during high school, she lived in Argentina for eight months where she attended classes all in Spanish and lived with a Spanish-speaking family.

The five students lived in university residences with other American students from the program and Spanish university students. Every two months, they were given a questionnaire that asked them to average the number of hours they spent a day speaking Spanish and to describe how they spent that time. Their L2 daily use generally consisted of four hours of classroom instruction, interaction with residence staff and residents, and listening to the radio and watching television. The only explicit grammar instruction the students received was during a grammar/conversation class that met for one hour three days a week. In general, they received little or no grammatical feedback in other classes. Alice claims to have practiced her Spanish for an average of five hours a day throughout the entire year. When she was not in class, she generally spent her time watching television, listening to music in Spanish, and participating in a conversation exchange with two Spanish students in which they met twice a week to speak only English on the first day and only Spanish on the other. Kate averaged around eight hours a day

speaking, listening to and studying Spanish. Like Alice, she typically watched television and listened to Spanish music. She also read the Spanish newspaper frequently. At the advanced level, Mitch practiced his Spanish for an average of five hours a day during the year. He admits that most of that time was during class. Outside of class, he frequently read Spanish newspapers, watched television and movies and consulted reference books to polish his skills. Like Alice, he had a conversation partner with whom he met once a week. He confessed that from around two-thirds of the way through the program until the end of the year, he mainly spoke English while his conversation partner spoke Spanish. Tim was one of the most dedicated students on the program who interacted the least with the American program students. Consistently throughout the entire year, he practiced his Spanish around 12 hours a day. He spent most of his free time with this Spanish dormmates and girlfriend watching television and playing sports, and on his own he read the daily newspaper and consulted Spanish reference and grammar books. At the beginning of the program, Beth averaged around nine hours a day practicing Spanish. Around five to six months into the program, she began spending more time with her American classmates and her average dropped to 5.5 hours a day. She typically watched television, read the newspaper and met twice a week with a Spanish conversation partner.

4.2 Experimental results

The results of the three worksheets were calculated based on the pre-tested responses of six native speakers of various dialects of Spanish (Nicaraguan, Spanish, Mexican and Argentinean) who had been residing in Seattle, Washington for four to nine

years. All six speakers agreed on the choice of aspect for all of the test items. Any item that elicited both the preterit and the imperfect tenses was eliminated.

In order to test the experimental design of the three worksheets, a pilot study was conducted with three university students of second year Spanish over a three-day period. None of the students had any difficulty with the design or the content and they each responded consistently for every worksheet.

The following data was collected at five different time periods, beginning at 0.0 months when the students first arrived in Spain, and ending at 9.0 months when they left. The three worksheets were given at 0.0 months, 3.5 months and 9.0 months. The four writing samples were taken at 2.0 months, 3.5 months, 7.0 months, and 9.0 months:

(5) Instrument administration

STAGE 1	Worksheet #1	0.0 months	(August, 1997)
STAGE 2	Writing Sample #1	2.0 months	(October, 1997)
STAGE 3	Worksheet #2 Writing Sample #2	3.5 months	(December, 1997)
STAGE 4	Writing Sample #3	7.0 months	(March, 1998)
STAGE 5	Worksheet #3 Writing Sample #4	9.0 months	(May, 1998)

Sections 4.2.1 and 4.2.2 will present the results of the morphology at each stage in chronological order for the intermediate and advanced students starting with the worksheets and then the writing samples. Their use of person and number will be analyzed to determine whether or not they had acquired the regular and irregular past

tense morphology. This acquisition will indicate the availability of functional categories for Tense and Agreement in their IL. Sections 4.2.3 and 4.2.4 will discuss the results of aspect at each stage. First the percentages of use of the preterit and the imperfect for the subjects and the native speakers will be compared to determine if the L2 learners demonstrate a preference for one aspect over the other. In addition to the correct use of aspectual oppositions, their choice of aspectual morpheme will be analyzed according to the inherent lexical aspect of the verbs to which they are attached. If the POA Hypothesis is correct, as a result of the lingering effects from the initial stages of L2 acquisition, the intermediate subjects will display a preference for the preterit with perfective verbs and the imperfect with imperfective verbs. This data will be particularly decisive because according to POA, the intermediate learners would have already demonstrated this match up earlier at the beginning stages of acquisition, so their IL should continue to display this preference.

The results of the morphology and aspect will then be compared to determine if they are linked or if they operate independently of one another. If the two components are linked, then in accordance with the Weak Transfer Hypothesis, the morphology must be acquired before the aspectual features [+/- FINAL] can be correctly checked. The preterit and the imperfect will be randomly assigned until the morphological paradigms have been established. If the two components are not linked, then even though there may be some nonfinite forms or incorrect number and person with finite forms, there will also be examples of the preterit and the imperfect with their appropriate feature specification.

4.2.1 Intermediate morphology results

TABLE 1: Percentages of Overall Accuracy – Morphology

STUDENT	WORKSHEET #1	WORKSHEET #2	WORKSHEET #3	OVERALL IMPROVEMENT
Alice	45%	85%	92%	**+47%**
Kate	88%	92%	85%	**-3%**

At the first stage of the experiment (Worksheet #1 – see Appendix 1), there is a huge discrepancy between the morphological production of the two intermediate students. While Alice only produced 45% of the forms accurately, Kate's accuracy was much higher at 88%. Based on her error production, it is clear that Alice had acquired the morphology for the imperfect but not the morphology for the regular or irregular preterit (Appendix 4). She often confused the third person singular preterit for the first person singular (ex. **tuvo* 'have-PRET-3rd -sg' for *tuve* 'have-PRET-1st-sg'), used '*-er*' morphology for '*-ar*' verbs (ex. **llorió* for *lloró* 'cry-PRET-3rd-sg'), and produced other miscellaneous forms, such as the present subjunctive, past participles and infinitives for both the preterit and the imperfect. In six cases, she used the present tense as a default for when she did not know either the verbal aspect or the correct inflection. Kate, on the other hand, only displayed a few errors in number where she confused singular for plural subjects (e.g. *todo el mundo *bailaban* 'everyone dance-IMP-3rd-pl' for *bailaba* 'dance-IMP-3rd-sg'; **llegué mis amigos* 'arrive-PRET-1st-sg my friends' for *llegaron* 'arrive-PRET-3rd-pl') (Appendix 4).

At the mid-way point of the experiment at 3.5 months (Worksheet #2 - Appendix #2), Alice and Kate's accuracy was much more similar. While Alice produced 85% of the forms accurately, Kate had an accuracy rate of 92%, for an improvement of 40% and 4%, respectively, since the first stage (Table 1). Alice no longer confused the '*-er*' and '*-ar*' morphology, nor did she confuse the third person singular preterit for the first person singular (Appendix 4). The errors she did make were two instances where she confused the singular for plural (**fue las 8:31* 'be-PRET-3rd-sg' for *eran* 'be-IMP-3rd-pl' and **me llevé al campus* 'me take-PRET-1st-sg to campus' for *llevaron* 'take-PRET-3rd-pl'), and two errors in orthography (**querrí* for *quise* 'want-PRET-1st-sg' and **venieron* for *vinieron* 'come-PRET-3rd-pl'). Kate made one error in person (*me puso* 'reflexive become-PRET-3rd-sg' for *me puse* 'reflexive become-PRET-1st-sg') and two errors in number (*era* 'be-IMP-3rd-sg' for *eran* 'be-IMP-3rd-pl' and *tenía* 'have-IMP-1st-sg' for *teníamos* 'have-IMP-1st-pl') (Appendix 4).

At the final stage of the experiment at 9.0 months (Appendix #3), Alice and Kate continued to display similar levels of morphological acquisition. Alice produced 92% of the forms accurately, for an overall improvement of 47%, and Kate produced 85% of the forms accurately, for a decrease of 3% since the first stage (Table 1). Kate had difficulty in identifying the subject when it followed the verb and therefore incorrectly marked for number (e.g. *Se me iba a caer los ojos* reflexive me-possessive go-IMP-3rd-sg to fall-INF the eyes 'My eyes were going to fall out' for *iban* 'go-IMP-3rd-pl' and *me fascinaba los dibujos animados* me fascinate-IMP-3rd-sg the drawings animated 'cartoons fascinated me' for *fascinaban* fascinate-IMP-3rd-pl) (Appendix 4).

In the three writing samples taken at 2.0 months, 3.5 months and 7.0 months, both Alice and Kate produced very few errors in the morphology for both the preterit and the imperfect (Appendix 5). Alice only displayed errors in orthography for a few irregular preterit forms and Kate only made one error in number. They therefore made fewer errors in spontaneous, controlled production than with the infinitives they were given in the worksheets.

4.2.2 Advanced morphology results

TABLE 2: Percentages of Overall Accuracy – Morphology

STUDENT	WORKSHEET #1	WORKSHEET #2	WORKSHEET #3	OVERALL IMPROVEMENT
Mitch	95%	97%	92%	**-3%**
Tim	90%	91%	100%	**+10%**
Beth	83%	94%	92%	**+9%**

For Worksheet #1, the advanced students displayed some discrepancy in their production in morphology (Table 2). Mitch and Tim had clearly acquired the regular and irregular morphology for both the preterit and the imperfect (Appendix 4), at 95% and 90% accuracy, respectively, but Beth had more difficulty as she performed at 83% accuracy. Interestingly, her errors were not with the preterit, but rather the imperfect, which only has three irregular verbs. Her error production illustrates that she was confusing the morphology of the imperfect subjunctive with the imperfect indicative (e.g. *fuera* 'go-IMP SUBJ-3rd-sg for *iba* 'go-IMP INDIC-3rd-sg' and *tuviera* 'have-IMP SUBJ-1st-sg' for *tenía* 'have-IMP INDIC-1st-sg') (Appendix 4).

For Worksheet #2, the advanced students performed similarly. Mitch had an accuracy rate of 97%, Tim, 91% and Beth, 94%, for an overall improvement of 2%, 1% and 11%, respectively (Appendix 4). The few errors they displayed involved number marking (e.g. *era* 'be-IMP-3rd-sg' for *eran* 'be-IMP-3rd-pl' and *vino* 'come-PRET-3rd-sg' for *vinieron* 'come-PRET-3rd-pl') (Appendix 4).

At the final stage (Worksheet #3), the advanced students' accuracy remained relatively unchanged. Mitch produced the morphology at an accuracy rate of 92%, Tim at 100%, and Beth at 92%, for an overall improvement of –3%, 10%, and 9%, respectively. Like the intermediate students, both Mitch and Beth had trouble marking number for the same examples where subject-verb inversion took place (*iba a caer* for *iban* and *fascinaba* for *fascinaban*) (Appendix 4).

Of all the writing samples taken at 2.0 months, 3.5 months and 7.0 months, Beth was the only advanced student who made any errors in morphology. In one of the two samples she provided, at 2.0 months, she produced a number of orthographical errors and there were two instances where she used the infinitive after adverbial conjunctions, and also two instances where she used the present tense for actions that were still on-going in the present, despite their narration in the past tense (Appendix 5).

Although the five subjects displayed errors in person and number agreement and even applied non-past tense morphemes, such as the present indicative and subjunctive, past participles and infinitives, they still produced the same number (in the case of Alice in Worksheet #1) or generally more correct uses of person and number in both the preterit and the imperfect. Therefore, the percentages of correct usage demonstrate that they

have access to functional categories and feature strength in the L2. The morphological data illustrates that the subjects have acquired Tense and Agreement, as well as the morphology for aspect (but obviously some earlier on and more accurately than others). The production from the writing samples confirms their access to these categories. When they had control over the context and the verbs they used in their compositions, however, their performance was much higher than in the task where they were required to furnish specific forms.

4.2.3 Intermediate aspect results

The subjects' choice of the preterit and the imperfect was evaluated based on the responses of the native speakers. Only those responses that clearly demonstrate one particular aspect over the other are calculated here. Non-past tense and non-finite forms, such as the present tense, the present subjunctive, infinitives and past participles were thrown out. Errors in spelling, person and number typically did not impede the recognition of aspect, so they were not thrown out.

4.2.3.1 Overall usage and accuracy of the preterit and imperfect

TABLE 3: Percentage of Preterit and Imperfect Usage[2]

	Worksheet #1		Worksheet #2		Worksheet #3	
	I	P	I	P	I	P
Native Speakers	**60%**	**40%**	**47%**	**53%**	**49%**	**51%**
Alice	37%	63%	35%	65%	46%	54%
Kate	37%	63%	50%	50%	56%	44%

[2] Table 3 demonstrates the overall usage of the preterit and the imperfect to determine whether a default aspect exists at the various stages. For this table, I am not concerned with the correct aspect of the individual items, but rather the tendency to overuse a particular aspect.

At the first stage of the experiment (Worksheet #1), while the native speakers used the imperfect for 60% of the items and the preterit for 40%, Alice and Kate both used the imperfect for 37% of the items and the preterit for 63% (Table 3).

TABLE 4: Percentages of Overall Accuracy – Aspect

STUDENT	WORKSHEET #1	WORKSHEET #2	WORKSHEET #3	OVERALL IMPROVEMENT
Alice	45%	53%	82%	**+37%**
Kate	73%	85%	87%	**+14%**

Both Alice and Kate had low accuracy rates for aspect for Worksheet #1 (45% and 73%, respectively). Based on Table 3, their error production is the result of the overuse of the preterit.

For Worksheet #2, the native speakers used the imperfect in 47% of the items and the preterit in 53% (Table 3). Kate used both equally while Alice used the imperfect in 35% of the items and the preterit in 65%. Kate obviously did not display a preference for one grammatical aspect over the other, but Alice, on the other hand, still preferred the preterit over the imperfect. Both intermediate students demonstrated more target-like production for aspect (Table 4). Alice improved 8% from Worksheet #1, but her level of accuracy remained low at 53%. Kate improved 12% for a score of 85%.

At the final stage (Worksheet #3), while the native speakers used the imperfect for 49% of the items and the preterit for 51%, Alice used the imperfect for 56% of the items and the preterit 44% (Table 3). Both intermediate students performed fairly similarly to the native speakers. Alice had an accuracy rate of 82% for her production in aspect, for

an overall improvement of 37%, and Kate had an accuracy rate of 87%, for an overall improvement of 14% (Table 4).

4.2.3.2 Accuracy with aspectual oppositions

TABLE 5: Percentages of Correct Uses of Aspectual Oppositions

	WORKSHEET #1				WORKSHEET #2				WORKSHEET #3			
	*C	P	H	F/I	C	P	H	F/I	C	P	H	F/I
Alice	81	25	25	25	55	22	100	0	85	66	100	50
Kate	94	63	100	0	83	79	80	100	80	89	100	100

***C=Completed; P=Progress; H=Habitual; F/I=Future/Intention**

Table 5 presents the percentages of the correct usage of the four aspectual oppositions (Completed, Progressive, Habitual and Future/Intention). In general, the most difficult areas for the intermediate students were the future/intention and events in progress. For Worksheet #1, Alice was only able to perform relatively well on the completed actions, most likely due to her overuse of the preterit. In addition to performing well on the completed actions, Kate had 100% accuracy on the habitual actions.

For Worksheet #2, both Alice and Kate were able to correctly identify almost all of the habitual actions (100% and 80% accuracy, respectively) (Table 5). Of the remaining three aspects, Alice was only able to correctly identify less than one-fourth of the events in progress and half of the completed actions for a 26% drop in accuracy from the previous worksheet, and she was not able to identify any of the future/intention

events. Kate, on the other hand, was able to identify all of the future/intention events and around three-fourths of the completed events and events in progress.

For Worksheet #3, both Alice and Kate continued to accurately identify the habitual events (both at 100% accuracy) (Table 5). Alice was able to identify half of the future/intention events and improved significantly in her identification of the completed events and events in progress. Kate continued to correctly identify the future/intention events, and she identified more of the events in progress, but did not show any improvement with the completed events.

4.2.3.3 Lexical and grammatical aspectual match up

TABLE 6: Lexical and Grammatical Aspectual Match Up for All Test Items[3]

	WORKSHEET #1	WORKSHEET#2	WORKSHEET#3
Native Speakers	**93%**	**64%**	**82%**
Alice	40%	44%	70%
Kate	75%	74%	74%

Table 6 represents the percentages with which the students matched the inherent lexical aspect of the verb to the grammatical aspect (i.e. the morphology). Worksheet #1 contained a high percentage of match up in which the native speakers applied the preterit to perfective verbs (accomplishments and achievements) and the imperfect to imperfective verbs (activities and states) to 93% of all the items. Despite this high distributional bias, Alice displayed a match up of 40% and Kate, 75%.

[3] Table 6 reflects the overall match up of lexical to grammatical aspect. I am not concerned here with accuracy of the individual items, but rather the frequency of this match up.

Worksheet #2 did not display as high a distributional bias as Worksheet #1. While the native speakers displayed a match up of 64% of all the items, Alice only displayed 44% and Kate displayed 74% (Table 6).

Finally, for the lexical and grammatical match up for Worksheet #3, while the native speakers displayed a match up of 82%, Alice had a 70% match up and Kate had a 74% match up (Table 6).

TABLE 7: Specific Categorial and Grammatical Match Up

	States		**Activities**		**Accomplishments**		**Achievements**	
WORKSHEET #1	***I (8)**	**P (2)**	**I (13)**	**P (0)**	**I (0)**	**P (0)**	**I (1)**	**P (15)**
Alice	2	5	5	8	0	0	2	11
Kate	4	6	10	3	0	0	1	14
	States		**Activities**		**Accomplishments**		**Achievements**	
WORKSHEET #2	**I (8)**	**P (3)**	**I (5)**	**P (0)**	**I (0)**	**P (2)**	**I (3)**	**P (13)**
Alice	1	10	3	2	2	0	6	10
Kate	9	2	4	1	2	0	3	13
	States		**Activities**		**Accomplishments**		**Achievements**	
WORKSHEET #3	**I (12)**	**P (3)**	**I (3)**	**P (1)**	**I (0)**	**P (0)**	**I (4)**	**P (16)**
Alice	10	5	2	2	0	0	5	15
Kate	13	2	2	2	0	0	7	13

* Numbers in parentheses represent native speaker usage.

Table 7 illustrates the preference of grammatical aspect for each lexical class of verb. For Worksheet #1, both students randomly inflected the stative events with both the preterit and the imperfect (although Alice showed more of a preference for the preterit), but they both inflected the achievement events predominately with the preterit,

thus favoring the lexical matchup. While Kate also preferred the match up of the imperfect with activity events, Alice almost equally inflected them with both grammatical aspects (see Appendix 6 for the itemized list of errors for all three worksheets).

For Worksheet #2, Alice appeared to randomly identify the activities, accomplishments and achievements with either grammatical aspect, but displayed a preference of the preterit with states (she only identified one state with the imperfect) (Table 7). Kate, however, displayed an even match up of morphology to lexical aspect with the states, activities and achievements. She used the imperfect for both accomplishment events (Appendix 6).

In general for Worksheet #3, both preferred a match up for states and achievements but randomly identified the activities with both the imperfect and the preterit. In other words, the intermediate learners preferred a match up of lexical to grammatical aspect for some of the lexical classes but not all of them (Table 7 and Appendix 6).

The intermediate writing samples were quite different from one another. Alice described mostly completed events and only made 7 attempts to use the imperfect throughout her four samples. Kate, on the other hand, attempted both perfective and imperfective readings by describing completed events and events in progress. Neither student had any examples of habitual or future/intention events (see Appendix 7 for the itemized list of errors for all four writing samples).

Since Alice tended to overuse the preterit, she often identified actions in progress as being completed events. The following example was taken at 3.5 months:

(6) A las cinco y media yo *estuve muy borracha.

at the five and half I am-PRET-1st-sg very drunk

'At 5:30 I was very drunk.'

The state of being drunk did not start or stop at 5:30 but rather began before and continued on indefinitely afterwards, thus requiring the imperfect. Kate, on the other hand, overused the imperfect and therefore interpreted completed events as being in progress. The following sample was taken at 2.0 months:

(7) Todo el tiempo él me *molestaba

entire the time he me bother-IMP-3rd-sg

'He bothered me the entire time.'

In this sentence, Kate, after the fact, was referring to the totality of a trip in which her friend had annoyed her, which requires the preterit. The adverbial expression, "the entire time," also enforces the fact that this is a completed action.

With respect to the lexical and grammatical match up, both Alice and Kate applied the preterit to achievements, accomplishments and activities during all four stages. Alice consistently applied the preterit to states (more so than the imperfect), but Kate only used the preterit for four stative events. She clearly preferred the imperfect for stative events. Since Alice used the imperfect so infrequently, it is difficult to determine whether this was due to a lexical bias. Of the ten times she used the imperfect, nine verbs were inherently stative while only one was an achievement. As previously mentioned,

Kate demonstrated a lexical bias for states and also activities by using the imperfect, but she also modified a few accomplishments and achievements with the imperfect. As it was found in their morphological production, Kate and Alice are much more target-like in spontaneous production when they can choose the verbs and discourse.

Even though the POA Hypothesis makes predictions for the initial IL stages, it is still relevant for this study because the IL at the intermediate level, especially at the low intermediate level (represented by Alice), typically reflects remnants from the beginning stages. In other words, the match up of grammatical to lexical aspect predicted by POA that supposedly emerges at the initial stages should still be somewhat apparent even at the intermediate stage. The results from both the worksheets and the writing samples, however, demonstrate that the early intermediate L2 learners do not adhere to the predictions made by the POA Hypothesis. Instead of consistently applying the preterit to achievements and accomplishments and the imperfect to states and activities, they either display a random use of both aspects, as in the case of Alice, or a preference of lexical to grammatical aspectual match up for some lexical classes of verbs, but not all, as in the case of Kate. Kate's performance during the worksheets and writing samples, as well as her overall language skills (witnessed by the author) were somewhat higher than Alice's, thus placing her at a mid to high intermediate stage. The fact that she did not begin to consistently match the lexical to grammatical aspect until later on in the experiment implies that this match up does not occur in the initial stages, but rather the more advanced stages. The differences between the levels of the subject will be further discussed in Chapter 5.

4.2.4 Advanced aspect results

4.2.4.1 Overall usage and accuracy of the preterit and imperfect

TABLE 8: Percentage of Imperfect and Preterit Usage

	Worksheet #1		Worksheet #2		Worksheet #3	
	I	P	I	P	I	P
Native Speakers	**60%**	**40%**	**47%**	**53%**	**49%**	**51%**
Mitch	25%	75%	41%	59%	46%	54%
Tim	45%	55%	29%	71%	49%	51%
Beth	65%	35%	44%	56%	49%	51%

For Worksheet #1, the advanced students displayed different preferences for grammatical aspect (Table 8). While Mitch obviously preferred the preterit (which he used for 75% of the total items), Tim only had a slight preference for the preterit at 55%, and Beth showed a preference for the imperfect, which she used for 65% of the total items.

For Worksheet #2, Tim displayed a much higher overuse of the preterit than in the first worksheet (71%), while Mitch and Beth's use of the preterit more closely resembled native speaker accuracy at 59% and 56%, respectively (Table 8).

At the final stage (Worksheet #3), none of the advanced students displayed such a drastic preference for one grammatical aspect over the other, as they did during the initial stages (Table 8).

TABLE 9: Percentages of Overall Accuracy – Aspect

STUDENT	WORKSHEET #1	WORKSHEET #2	WORKSHEET #3	OVERALL IMPROVEMENT
Mitch	58%	76%	97%	**+39%**
Tim	85%	79%	95%	**+10%**
Beth	73%	85%	100%	**+27%**

For Worksheet #1, the advanced students performed at quite different rates of accuracy (Table 9). Mitch scored the lowest at an accuracy rate of 58%, then Beth at 73% and finally Tim at 85%.

For Worksheet #2, with the exception of Tim, the accuracy levels increased significantly (Table 9), with Mitch at 76%, for an improvement of 19%, and Beth at 85%, for an improvement of 12%. Tim scored 6% lower at 79%.

For Worksheet #3, all three performed within 5% of native accuracy for aspect (Table 9). Mitch scored 97% for an overall improvement of 39%, Tim scored 95% for an overall improvement of 10%, and Beth scored 100% for an overall improvement of 27%.

4.2.4.2 Accuracy with aspectual oppositions

TABLE 10: Percentages of Correct Uses of Aspectual Oppositions

	WORKSHEET #1				WORKSHEET #2				WORKSHEET #3			
	*C	P	H	F/I	C	P	H	F/I	C	P	H	F/I
Mitch	100	19	100	0	83	67	100	0	100	89	100	100
Tim	100	81	75	50	95	77	80	50	100	78	100	100
Beth	63	100	50	50	89	78	100	50	100	100	100	100

***C=Completed; P=Progress; H=Habitual; F/I=Future/Intention**

With respect to the various aspectual oppositions for Worksheet #1, as to be expected, the results were not consistent amongst the learners (Table 10). The one area, though, that all three had difficulty with was in identifying the future/intention events. Mitch and Tim correctly identified all of the completed events, but Beth was only able to identify 63% of them. Beth, on the other hand, was able to identify all of the events in progress, while Tim could only identify 81% and Mitch, 19%. Despite his preference for the preterit, Mitch was able to correctly identify all of the habitual actions, while Tim identified 75% and Beth, 50%.

For Worksheet #2, all three advanced students again had difficulty correctly identifying the future/intention events and all three also had trouble with the events in progress (Table 10). This time, they were able to identify almost all of the habitual actions, and while Tim did not have any difficulty, both Beth and Mitch had some difficulty identifying the completed actions.

For Worksheet #3, all three students correctly identified all of the completed, habitual and future/intention events (Table 10). Only Mitch and Tim had relative difficulty with the events in progress.

4.2.4.3 Lexical and grammatical aspectual match up

TABLE 11: Lexical and Grammatical Aspectual Match Up for All Test Items

	WORKSHEET #1	WORKSHEET #2	WORKSHEET #3
Native Speakers	**93%**	**64%**	**82%**
Mitch	55%	54%	78%
Tim	83%	56%	74%
Beth	78%	71%	82%

In general, the advanced students displayed slightly higher percentages of lexical and grammatical aspectual match up than the intermediate students (Table 11). Except for Mitch during Worksheets #1 and #2, their percentages of lexical to grammatical match up were fairly similar to those of the native speakers throughout the entire experiment (Table 11).

TABLE 12: Specific Categorial and Grammatical Match Up

	States		**Activities**		**Accomplishments**		**Achievements**	
WORKSHEET #1	***I (8)**	**P (2)**	**I (13)**	**P (0)**	**I (0)**	**P (0)**	**I (1)**	**P (15)**
Mitch	2	8	5	7	0	0	0	16
Tim	8	2	10	3	0	0	0	16
Beth	10	0	9	4	0	0	6	10
	States		**Activities**		**Accomplishments**		**Achievements**	
WORKSHEET #2	**I (8)**	**P (3)**	**I (5)**	**P (0)**	**I (0)**	**P (2)**	**I (3)**	**P (13)**
Mitch	8	3	3	2	0	2	3	13
Tim	7	4	0	5	0	2	3	13
Beth	6	5	5	0	0	2	3	13
	States		**Activities**		**Accomplishments**		**Achievements**	
WORKSHEET #3	**I (12)**	**P (3)**	**I (3)**	**P (1)**	**I (0)**	**P (0)**	**I (4)**	**P (16)**
Mitch	11	4	3	1	0	0	4	16
Tim	10	5	3	1	0	0	4	16
Beth	12	3	3	1	0	0	4	16

* Numbers in parentheses represent native speaker usage.

With respect to the specific lexical categorial to grammatical match up, in Worksheet #1, Mitch only preferred a direct match up with achievements (Table 12). He randomly identified the activities and displayed a preference for the preterit with states.

Beth, on the other hand, preferred the states entirely with the imperfect, but randomly inflected the activities and the achievements. Overall, Tim matched the majority of the states and activities and all of the achievements with their corresponding morphology (see Appendix 6 for the itemized list of errors for all three worksheets).

For Worksheet #2, all three preferred the achievements and accomplishments with the preterit, but differed with respect to the states and activities (Table 12). Mitch continued to randomly inflect the activities but this time preferred the states with the imperfect instead of the preterit, as he did earlier. Tim also preferred the states with the imperfect, but oddly chose the preterit for all of the activities. Beth, however, randomly inflected the states but chose the imperfect for all of the activities (Appendix 6).

Finally, for Worksheet #3, all three advanced students clearly preferred a match up for activities and achievements (Table 12). In general, they preferred the imperfect with states, but Tim still chose the preterit for one-third of them (Appendix 6).

The advanced writing samples did not contain as many lists of completed events as did the intermediate samples, but rather more descriptions of events in progress. Mitch was the only student who included habitual actions throughout the experiment, all of which he used correctly. Tim and Beth provided some examples of future/intention events, which they modified incorrectly (see Appendix 7 for the itemized list of errors for all four writing samples).

In general, all three students were able to correctly identify completed events and events in progress. One problem that Mitch in particular had at 2.0 months and 9.0 months was a lack of continuity in the descriptions of certain events. For example, he

would establish the totality of a completed event and list the completed actions that took place within that totality and then suddenly modify the next event using the imperfect:

(8) Muchas cosas ocurrieron. Conocí *con [a] muchos amigos y pasé el mejor tiempo de mi vida. Lo que me *gustaba hacer más *era tomar cervezas y charlar con mis nuevos amigos en mi nuevo idioma.

Many things occur-PRET-3rd-pl know-PRET-1st-sg with many friends and spend-PRET-1st-sg the best time of my life what me like-IMP-3rd-sg do-INF be-IMP-3rd-sg take-INF beers and chat-INF with my new friends in my new language

'Many things occurred. I met a lot of friends and I spent the best time of my life. What I liked to do more was drink beer and chat with my new friends in my new language.'

In this example, Mitch had set up a definite timeframe in which a number of events were completed in reference to speech time. After he describes how he had met many people and spent the best time of his life while in Spain, he then described what he liked doing best during that time, drinking beer and chatting with his new friends. Instead of maintaining consistency with the preterit, he modified these last two actions using the imperfect (probably to due their habitual nature during the year abroad). Even though these actions were iterative during that set period, the preterit is necessary here because of the bounded nature of the overall timeframe to the speech time he had previously established.

The problem that both Tim and Beth had was in modifying future/intention events. They would begin describing an event from the point of view before it was realized, but since the event was eventually completed later on, which they knew from

the vantage point of the present, they used the preterit instead of the imperfect. The following sample is taken from Beth's writing sample at 2.0 months. Here she describes how she and a friend had to send some documents for which they had to plan a trip:

(9) Pero *tuvimos que mandar algunos papeles a EEUU y necesitaban llegar muy pronto.

but have-PRET-1st-pl to send some papers to U.S. and need-IMP-3rd-pl to arrive very soon.

'But we had to send some papers to the U.S. and they needed to arrive very soon.'

Beth focused on the perspective of an intention and described what needed to take place before she and her friend actually set out to perform the event. Since she knew from the speech time that she and her friend eventually sent the papers (which she states later on), she chose the preterit.

All of the advanced students freely applied the preterit to all four lexical aspects throughout the experiment. With few exceptions, they limited the imperfect, however, to stative events. Tim and Mike used it with a few achievements and actions in the first two samples at 2.0 and 3.5 months. In the following example taken from Tim's writing sample at 3.5 months, Tim is describing a man who began to bother him and his friends:

(10) Después de una hora y pico, <u>estabamos</u> completamente hartos de él, *<u>empezábamos</u> a usar tacos porque no ?<u>podíamos</u> sorportar su comportamiento y no ?<u>podíamos</u> aguantarlo más.

after an hour and a little be-IMP-1st-pl completely tired of he begin-IMP-1st-pl to use-INF swear words because no be able-IMP-1st-pl stand-INF his behavior and no be able-IMP-1st-pl tolerate him more

'A little after an hour we were completely tired of him, we began to use swear words because we could not tolerate his behavior and we could not stand him more.'

Tim uses the imperfect for the inherently stative verbs, *estar* and *poder*, and interestingly also the achievement *empezar*. *Estar* describes the feelings in progress while Tim and his friends were dealing with the annoying man. *Empezar* is incorrectly modified by the imperfect, which is not the result of the lexical to grammatical aspectual match up. It refers to a completed action and should therefore be used in the preterit. The two examples with *poder* are questionable. The result of the subjects' not being able to tolerate the man was to begin swearing at him. Since this action took place, the tolerance ended, which then implies a completed action (and requires the preterit tense). In this next example from Mitch's writing sample at 3.5 months, Mitch is describing a recurring dream:

(11) Aunque podía ver *a mi casa, no podía encontrar una senda que llegaba allí.

even though be able-IMP-1st-s see-INF my house no be able-IMP-1st-s find-IMF a path que arrive-IMP-3rd-s there

'Even though I was able to see my house, I could not find a path that led there.'

Here Mitch modifies the stative verb *poder* and the achievement *llegar* with the imperfect. In his dream, Mitch would always find himself in the same forest staring at his house from a far. The actions of being able to see his house (*poder ver*) and being able to find a path (*poder encontrar*) and the description of the path leading to his house (*llegar*) are all events in progress taking place while he was in the forest. He modified all

three events correctly using the imperfect. By 9.0 months, Tim and Mitch used the imperfect almost exclusively with states and rarely with any other lexical class, as did Beth during the entire experiment.

With respect to the POA Hypothesis, the match up of lexical to grammatical aspect increased with time at the advanced level. Both the worksheets and the writing samples demonstrate higher percentages of match up of accomplishments and achievements with the preterit and states and activities with the imperfect. As it was found at the intermediate level, the L2 level appears to be directly proportionate to the percentage of lexical to grammatical match up.

4.3 Summary and conclusion

The data presented here from the three worksheets and the four writing samples reflects the progress of the acquisition of Spanish L2 aspect for the intermediate and advanced learners during a scholastic year in a natural environment. As seen in Tables 1, 2, 4 and 9, all five students improved either slightly or significantly in their accuracy with morphology and choice of grammatical aspect.

Section 4.1 described the two instruments implemented to collect the written production data. The main instrument, the three fill-in-the-blank worksheets were administered at 0.0 months when the students first arrived to Spain, at 3.5 months after the first semester ended and then finally at 9.0 months upon their departure. The four writing samples that contained past tense narratives were collected during the year at 2.0 months, 3.5 months, 7.0 months and 9.0 months. This section also provided the

background information on the education and the Spanish L2 experience each of the subjects had prior to living in Spain. The intermediate students had completed second year Spanish at the university level, while the advanced students had completed third year Spanish. Only one student had lived abroad before living in Spain.

Sections 4.21 and 4.22 provided the data on the morphological acquisition for both the intermediate and advanced levels. Both the worksheets and the writing samples confirm that despite the various errors in person and number agreement, the subjects have acquired Tense and Agreement, thus proving that they have access to functional categories and their features in the L2. By the end of the year, the accuracy rates of 85 to 100 percent demonstrate that all five subjects had basically acquired the morphology for the preterit and the imperfect.

Sections 4.23 and 4.24 presented the data on the facility in using the perfective and imperfective aspect for the intermediate and advanced subjects. First, the usage of each aspect was considered to determine whether the subjects had a preference for the preterit over the imperfect, or vice versa. The less advanced students initially displayed a significant overuse of the preterit. The four writing samples also reflect a higher usage of the preterit, but this was mainly due to the fact that the stories contained more completed actions and few descriptions of imperfective events. As the year progressed, all of the subjects eventually displayed no preference for one aspect over the other.

These sections continued with an error analysis of the four aspectual oppositions: completed events, events in progress, habitual events and future/intention events. By the end of the scholastic year, it is obvious that all five subjects learned to identify habitual

events and correctly apply the feature [-FINAL]. All of the subjects had difficulty identifying the future/intention events in the first two worksheets (except for Kate in Worksheet #2). By the end of the year, only Alice continued to have trouble in identifying them. The one opposition that persisted in being difficult for everyone, except Beth, in the end was the events in progress.

Finally, the match up of lexical to grammatical aspect was calculated to determine whether or not the L2 learners adhere to the POA Hypothesis. In general, the data illustrates that the lower level subjects matched the lexical to the grammatical aspect at lower rates than the more advanced subjects. As more time passed, they gradually displayed higher rates of match up. Therefore, contradictory to the POA Hypothesis, the match up of lexical to grammatical aspect does not take place initially or even at the early intermediate stages, but rather at the late intermediate to early advanced stages.

In sum, despite the defective morphology that exists at various stages, the data collected here illustrates examples of the features [+/- FINAL] that are correctly mapped to the preterit and imperfect morphology at both the intermediate and advanced levels, which thus implies that the L2 learners do have access to L2 functional categories and their corresponding feature values. The link between syntax and morphology and the access to L2 functional categories will be further discussed in Chapter 5 during the data analysis. In addition, a new framework will be proposed to account for the data that the POA Hypothesis cannot explain.

Chapter 5: Discussion of data and new proposals

5.0 Introduction

Chapters 3 and 4 argued that the POA Hypothesis does not accurately predict the acquisition of L2 aspect. The production of the L2 learners does not display a matching of lexical to grammatical aspect at the early stages (or in the case here, at the early intermediate stages), but rather at the late intermediate to early advanced stages of learning. Therefore, a new explanation is necessary to account for the stages of acquisition found here.

This chapter will present an analysis of the data found in Chapter 4 in terms of the POA Hypothesis and the three hypotheses discussed at the end of Chapter 3: the Weak Transfer Hypothesis, the Failed Functional Features Hypothesis and the defective mapping and Missing Inflection Hypothesis. Section 5.1 will discuss the data in terms of the POA Hypothesis. The data collected here clearly illustrates that the L2 learners do not match the lexical to grammatical aspect until the later stages. Section 5.2 will discuss the morphological acquisition of the five students and its relation to the acquisition of the formal features [+/- FINAL] associated with Outer Aspect Phrase. Since the intermediate students in particular are able to infer both imperfective and perfective aspect in their production, despite the fact that the regular and irregular morphology has not been completely mastered, it will be argued that the morphology and syntax operate independently of one another. Therefore, the Weak Transfer Hypothesis will be ruled out as a possibility for the L2 acquisition of functional categories.

Section 5.3 explores in detail the longitudinal data of Alice, the lowest ranked subject and Beth, the highest ranked subject. Alice's production is of particular importance because it demonstrates clear examples of L1 interference, especially with stative events. Throughout the year, she eventually loses this L1 interference and enters into a period of underspecification for the features associated with aspect. Since Beth and the other advanced students are able to apply the formal features [+/- FINAL] correctly to both the preterit and the imperfect morphology, it will be argued that the formal features are obtainable in L2 acquisition. Therefore, the defective mapping and the Missing Inflection hypotheses, not the Failed Functional Features Hypothesis, account for the native-like production of the advanced students and the random production of the intermediate students.

Finally, Section 5.4 will present a recent theory to account for all of the stages in the acquisition of functional categories, Constructionism (Herschensohn, 1998a, 2000a). The L2 learners experience three major stages of acquisition: first, a period of L1 transference at the beginning levels; next, the unsetting of L1 values and gradual resetting to L2 values which results in a period of underspecification; and finally, the completion of parameter setting and the target specification of the formal features. This theory will then be applied to the acquisition of L2 aspect to provide a new framework for investigation. I propose that during the initial to early intermediate stages of the acquisition of L2 aspect, L2 learners experience L1 transference in which the abstract formal feature of the English verb, [+perfective], assigned at Inner Aspect Phrase and the feature [+FINAL] associated with the English simple past tense are transferred to the IL.

By the late intermediate stage, the L1 feature values are unset, but the L2 values are still not specified, which results in a random identification of aspect by L2 learners. As these feature strengths remain unset, the IL Outer Aspect Phrase, which assigns the morphology in accordance with the (a)telicity of the VP, apparently mismaps the features [+/-FINAL]. In the meantime, the L2 learners rely on different strategies, in particular the matching of lexical to grammatical aspect, class by class, in order to acquire the L2 settings. By the advanced stages, the feature values at Inner Aspect Phrase become specified as L2 learners master the lexical aspect of most verbs. Furthermore, they gain the ability to recognize appropriate features of Outer Aspect Phrase when assigning the morphology.

5.1 Evidence against the POA

In accordance with García and v. Putte (1988), Salaberry (1999) and Hasbún (1995), the data collected here does not support the POA Hypothesis. Recall that Andersen (1989, 1991) argues that the match up of lexical to grammatical aspect occurs at the beginning of L2 acquisition. If this were the case, then the intermediate learners, who often still experience some effects from the beginning stages, should demonstrate the match up in their production throughout all of the stages of this study. In other words, they should not be beyond the stage at which POA would be applicable.

In order to further comprehend the data, the ranking of the five subjects is necessary. Based on the production data collected here from both the worksheets and the writing samples, and also the individual L2 performance in and outside of the classroom

(i.e. their original ranking at the beginning of the scholastic year), the following division describes the L2 learners at the beginning of the study at 0.0 months:[1]

(1) Ranking of five subjects

Alice: low intermediate
Kate: high intermediate
Mitch: high intermediate/ low advanced
Tim: low advanced
Beth: mid advanced

5.1.1 Results of lexical to grammatical match up for the intermediate level

TABLE 13: Specific Categorical and Grammatical Match Up

	States		Activities		Accomplishments		Achievements	
WORKSHEET #1	***I (8)**	**P (2)**	**I (13)**	**P (0)**	**I (0)**	**P (0)**	**I (1)**	**P (15)**
Alice	2	5	5	8	0	0	2	11
Kate	4	6	10	3	0	0	1	14

* Numbers in parentheses represent native speaker usage.

For the first worksheet given at the beginning of the study at 0.0 months, Alice and Kate were not influenced by the lexical aspect of the predicate in all four lexical classes, despite the high distributional bias it contained (Table 13). The only class for which both students preferred a match up was with achievements. Their high percentage of achievements inflected with the preterit, however, may have been the result of their overall overuse of the preterit found in this worksheet. Both students inflected the states

[1] The ranking here was more influenced by the students' overall L2 abilities (i.e. speaking ability, classroom performance, general grammar knowledge, etc.). While Kate, in particular, was placed at the intermediate level, her knowledge of aspect may have surpassed her other L2 skills. In order to be consistent with her classroom ranking and general knowledge, she will be continue to be ranked at the intermediate level.

more often with the preterit than the imperfect, even though 80% of the states required the imperfect. The one lexical class that distinguished the production of the two learners was with activities. While Alice exhibited random inflection with the activities, Kate showed a much higher preference for them with the imperfect. This higher sensitivity to the inherent lexical aspect and also her target-like morphological production reflect Kate's higher level of Spanish, high intermediate, as opposed to Alice's lower level at low intermediate, which was clearly apparent at the following stages, as well.

TABLE 14: Specific Categorical and Grammatical Match Up

	States		Activities		Accomplishments		Achievements	
WORKSHEET #2	***I (8)**	**P (3)**	**I (5)**	**P (0)**	**I (0)**	**P (2)**	**I (3)**	**P (13)**
Alice	1	10	3	2	2	0	6	10
Kate	9	2	4	1	2	0	3	13

* Numbers in parentheses represent native speaker usage.

After three and a half months for Worksheet #2, Alice continued to randomly inflect the activities with both grammatical aspects, and now also with achievements (unlike before when she demonstrated a preference for the preterit) (Table 14). For the accomplishments and states, she chose their opposing grammatical aspects in almost all of the items in those classes. Kate, on the other hand, clearly demonstrated a much higher matching of lexical to grammatical aspect for all of the verb classes except achievements. In fact, her percentage of match up was 10% higher than that of the native speakers. Her writing sample taken a month and a half earlier also reflected this higher

percentage of match up. In her correct and also incorrect spontaneous production, she modified states and activities, in particular, consistently with the imperfect.

TABLE 15: Specific Categorical and Grammatical Match Up

	States		Activities		Accomplishments		Achievements	
WORKSHEET #3	***I (12)**	**P (3)**	**I (3)**	**P (1)**	**I (0)**	**P (0)**	**I (4)**	**P (16)**
Alice	10	5	2	2	0	0	5	15
Kate	13	2	2	2	0	0	7	13

*Numbers in parentheses represent native speaker usage.

After living in the natural environment for nine months, as did Kate, Alice finally began to show increased sensitivity to the lexical aspect of the various lexical classes (Table 15). Although the match up she displayed was 12% off of that of the native speakers, her lexical to grammatical aspectual match up had increased 30% from the first stage at 0.0 months.

5.1.2 Results of lexical to grammatical match up for the advanced level

TABLE 16: Specific Categorial and Grammatical Match Up

	States		Activities		Accomplishments		Achievements	
WORKSHEET #1	***I (8)**	**P (2)**	**I (13)**	**P (0)**	**I (0)**	**P (0)**	**I (1)**	**P (15)**
Mitch	2	8	5	7	0	0	0	16
Tim	8	2	10	3	0	0	0	16
Beth	10	0	9	4	0	0	6	10
	States		**Activities**		**Accomplishments**		**Achievements**	
WORKSHEET #2	**I (8)**	**P (3)**	**I (5)**	**P (0)**	**I (0)**	**P (2)**	**I (3)**	**P (13)**
Mitch	8	3	3	2	0	2	3	13
Tim	7	4	0	5	0	2	3	13
Beth	6	5	5	0	0	2	3	13
	States		**Activities**		**Accomplishments**		**Achievements**	
WORKSHEET #3	**I (12)**	**P (3)**	**I (3)**	**P (1)**	**I (0)**	**P (0)**	**I (4)**	**P (16)**
Mitch	11	4	3	1	0	0	4	16
Tim	10	5	3	1	0	0	4	16
Beth	12	3	3	1	0	0	4	16

* Numbers in parentheses represent native speaker usage.

The production at the advanced level in general reflects a direct proportion of experience to the percentage of lexical to grammatical aspectual match up (Table 16). As the level of study or amount of exposure to L2 input increases, so does the percentage of lexical to grammatical match up. Throughout the nine months, all three students were sensitive to the inherent perfective aspect of achievements, which is illustrated through their predominant inflection in the preterit. The next class for which the advanced students appeared to match the lexical to grammatical aspect was with states. As their

level and exposure increased, they inflected the states increasingly with the imperfect. Activities were the final category for which they match the lexical to grammatical aspect.[2]

In sum, the POA Hypothesis does not influence the choice of L2 grammatical aspect at the beginning or early intermediate stages of acquisition. Instead, the match up of lexical to grammatical aspect does not take place until the L2 learner has had adequate exposure to the L2. In addition, the sensitivity to the inherent lexical aspect of all four classes of verbs does not take place simultaneously. I propose that the sensitivity to each class emerges at different levels of performance and in the following order:

(2) Order of emergence of sensitivity to lexical classes

achievements > accomplishments[3] > states > activities

The emergence of achievements with the preterit at earlier stages is most likely due to the saliency of the aspect of achievements. Since achievements have no duration and have an inherent, built-in endpoint, the preterit represents a clear reflection of their completedness. States have the next most salient aspect because of their lack of internal structure and built-in endpoint. Since the imperfect modifies incomplete, unbounded events, it naturally lends itself to modify the incompleteness of states. Activities are somewhat ambiguous because although they have no inherent endpoint, the speaker

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[2] Because of the limited use of accomplishments in the experimental design, it is difficult to speculate at what point their modification would reflect the influence of the lexical to grammatical match up. Since the advanced learners modified them all with the imperfect and the intermediate learners modified them all using the imperfect, it is possible that this match up does not occur consistently until the late intermediate, early advanced stages. More examples are necessary, however, before this can be determined.

[3] See Footnote #2

knows that they will eventually have to end (but just not specifically when) because they require energy or volition in order to continue. This knowledge may influence the L2 learner to modify them with the preterit and imperfect until they have understood the unbounded ([-FINAL]) nature of activities.

The preterit and imperfect are used to modify the aspectual duration of an event, regardless of the inherent lexical class of the verb, so the goal of the L2 learner is not to uniformly match the lexical to grammatical aspect. However, because of the high distributional bias that appears to exist in native speaker output in which the preterit is most likely to be applied to achievements and accomplishments and the imperfect is most likely applied to states and activities, it seems that the L2 learners at more advanced levels eventually perceive the distributional bias as they adjust their IL grammar in the input their receive. As their experience and L2 level increase, they gradually become more aware of the correlation between lexical and grammatical aspect, and as a result try to relate the two. Therefore, in agreement with VanPatten (1990), earlier L2 learners are not able to process the relation between lexical and grammatical aspect because they are not able to simultaneously tend to form and meaning. Only at the more advanced levels are they likely to notice the distributional bias in the input they receive. Prévost (1997) explains that the processing load involved with certain principles is too heavy for initial grammars to handle. In the case of aspect, once the grammar system has reached a level of complexity that allows it to handle the correlation of lexical to grammatical aspect, the L2 production will more consistently mimic the native speaker use of the two aspects.

5.2 Evidence against a morphosyntactic link

The three hypotheses of interest here regarding the acquisition of functional categories are the Weak Transfer Hypothesis (Eubank, 1992, 1993/94, 1994), the Failed Functional Features Hypothesis (Hawkins and Chan, 1997) and the defective features mapping (Lardiere, 1998)/ Missing Inflection hypotheses (Haznedar, 1997). The Weak Transfer Hypothesis argues that L1 functional categories are transferred to the IL without their feature specifications. It proposes a morphosyntactic link in which once the L2 morphology is acquired, L2 feature specification takes place. The Failed Functional Features Hypothesis, on the other hand, argues that the functional categories and the feature specifications for the L1 are transferred to the IL. It claims that even if the L2 learners master the morphology, they never acquire the correct L2 feature specifications because they persist in using the L1 values. Therefore, there is no link between the morphology and syntax. Like the Failed Functional Features Hypothesis, Lardiere and the Missing Inflection Hypothesis argue that both the L1 functional categories and their feature values transfer to the L2, and also that the syntax and morphology operate independently of one another. Unlike the former hypothesis but like the Weak Transfer Hypothesis, they argue that L2 learners do have access to the L2 functional categories and feature specifications.

In terms of aspect, there are two main issues of interest. The first is the relation between the acquisition of the morphological paradigms for the preterit and the imperfect and the correct use of aspect. If the L2 learners are able to correctly identify the perfective and imperfective events despite defective or missing morphology, an

independent morphology and syntax will be supported. If the L2 learners are not able to correctly identify aspect until the morphological paradigms are in place, a morphosyntactic link will be claimed. The second issue is the success rate of the advanced students. If they persist in incorrectly identifying the aspect of various events, this will prove that they do not have access to the L2 feature values. If they are able to correctly identify aspect, in particular in more subtle contexts, they do have access to the L2 feature specifications.

Although all five subjects consistently demonstrated higher morphological than aspectual accuracy, the data collected here does not support a link between morphology and syntax. In other words, the two components appear to operate independently of one another. In the case of aspect, the morphology for the preterit and the imperfect does not have to be in place before the features [+/- FINAL] are present.

At the low intermediate level, Alice's morphological production (45% accuracy), contained numerous errors with non-finite forms, incorrect tenses and incorrect person and number. Despite her low accuracy rate, her production illustrates that she has access to the formal features [+/- FINAL] associated with the past tense morphology. For Worksheet #1, she was able to identify more than three-fourths of the completed events (thus proving the existence of [+FINAL] for the preterit) and one-fourth of the habitual and future/intention events and events in progress (thus proving the existence of [-FINAL] for the imperfect). Furthermore, her spontaneous production at 2.0 months demonstrates correctly modified examples of [+/- FINAL] events:

(3) *Estaba [Era][4] muy interesante mirar porque todo la gente estaba en ropa original de Andalucía con flores en sus manos.

'It was (IMP) very interesting to watch because all of the people were (IMP) in original clothing from Andalusia with flowers in their hands.

(4) En vez, yo compré (PRET) tarjetas postales y fuimos (PRET) a casa comer almuerzo.

'Instead, I bought postcards and we went home to eat lunch.'

In example (3), Alice described a religious procession she attended in which the participants were wearing traditional clothing, an obvious action in progress that took place while she watched. In example (4), she described what she did right after the procession, two completed events of buying postcards and then going home. Both of these examples demonstrate the access to the formal features associated with aspect. As found in Lardiere (1998) and Herschensohn (2000b), the fact that Alice displayed defective morphology in the worksheets does not imply that she does not have access to the features associated with aspect.

In order to explain why morphological competence is often much higher than syntactic competence, Bardovi-Harlig (1992) investigates the differences between instructed and uninstructed learners. She found that while instructed and uninstructed learners experience the same developmental stages, instructed learners outperform uninstructed learners with the use of morphology at later stages. Bardovi-Harlig argues that since tense/aspect morphology is a major topic in any language curriculum, the L2 classroom learners typically receive intensive drilling and extensive instruction on the

[4] Alice confused the copulative verb *estar* 'to be,' which is used with temporal conditions and location, with the copulative *ser* 'to be,' which is used with non-temporal descriptions or characteristics.

verbal conjugations (1992). As a result, the development of form often precedes appropriate use. This, however, does not provide enough evidence to argue that the morphology must be in place in order to be able to access the related formal features. As in the case of Mitch for Worksheet #1 where he displayed almost total accuracy with the morphology but only had an accuracy rate of 58% with aspect, it can be argued that fully grammatical forms emerge and are used by the learners before they consistently carry target-like meaning. This would then support the morphosyntactic link. Since more emphasis is placed on the accuracy of form in the classroom, the morphology will logically be acquired before the syntactic formal features. Therefore, the fact that the morphology precedes the syntax here is merely coincidental, and it cannot be argued that they are linked.

In light of the influence of instructed learning on morphology and also the data at the intermediate level that reflects examples of appropriate uses of verbs with the formal features [+/- FINAL] alongside missing or incorrect inflection, there is not sufficient evidence to argue that the acquisition of functional categories and their formal features is dependent on the acquisition of the morphological paradigm. Therefore, the Weak Transfer Hypothesis, which posits that the morphology and syntax are linked as they develop in tandem, is not supported here. Syntactic movement and access to formal features is possible with defective inflection.

There are two possible explanations for why the L2 learners experience difficulty in associating the features [+/- FINAL] to the appropriate morphemes. Lardiere (1998a) suggests that the problem lies in the morphology or PF component where the mapping

between morphology and syntax takes place. The phi features associated with the syntax are mismatched with the morphology until their appropriate corresponding features have been fully interpreted. The Missing Inflection Hypothesis, however, does not argue for this mismatching of phi features with the morphology. Instead, it states that the missing morphological features may be phonetically unrealized in fossilized grammars with defective or impoverished morphology. In other words, the L2 learners make errors that are unable to be corrected. Since the subjects here are able to eventually acquire the morphological paradigms for both the preterit and the imperfect, Lardiere's proposal is the more logical explanation.

5.3 Longitudinal findings

This section discusses the longitudinal data collected specifically on Alice and Beth. The findings for Alice are important both because she had the lowest level of L2 competence, hence the most difficulty in acquiring aspect, and because she experienced the highest percentage of improvement throughout the year. The findings for Beth are important for the opposite reasons. Since Beth had already lived in the target environment for eight months prior to living in Spain and was also placed at the advanced level, her L2 competence level was fairly high and she therefore had little room left for improvement. Her production level reflects the fine-tuning she experienced in the acquisition of aspect.

5.3.1 Alice

At the first stage of the study (0.0. months), Alice performed at less that 50% accuracy for both the morphology and aspect. She clearly overused the preterit, which made it difficult for her to identify the events in progress and the habitual and future/intention events, which required the imperfect and the feature value [-FINAL]. Since Alice was able to correctly identify some of the habitual and future/intention events and some of the events in progress, she did initially have access to this value (which she correctly applied to a number of items). She had not, however, fully specified it for the imperfect and the aspectual oppositions it modifies.

Based on her preference for the preterit with achievements and states, it appears that the reason why Alice was exhibiting this period of lack of specification is because of L1 transference. Recall from section 1.1 that in English, progressive [-FINAL] morphology can only be applied to activities, accomplishments and achievements. It cannot be applied to states. Instead, the simple past must be used:

(5) *I was loving you.

I loved you.

Even though the simple past allows for an open [-FINAL] interpretation with states in English, Alice appeared to be transferring the value [+FINAL] associated with the English morphology to her L2 production. She did not seem to be influenced by the [+FINAL] value associated with the Spanish preterit with all lexical classes of verbs. It is possible, then, that for the intermediate L2 learners, states modified by the preterit have

both an open (imperfective) and closed (perfective) interpretation. Taking Alice's low intermediate rank into account, it is not surprising that she is still influenced by the L1.

By Worksheet #2 at 3.5 months, Alice continued to display an overall preference for the preterit. Interestingly, the L1 transfer effects persisted in her choice of grammatical aspect for states (of which 90% were modified in the preterit), but not for achievements, which she randomly modified in both the preterit and the imperfect. Therefore, it appears that Alice had dissociated or unspecified the value [+FINAL] associated with the Spanish preterit but was still influenced by the [+FINAL] value associated with the English morphology, which she applied to states.

By the final stage at 9.0 months, Alice's 37% overall improvement in aspect at 82% accuracy reflects a number of changes that took place since the beginning of the study. First of all, she applies the imperfect morphology to more events and as a result no longer overuses the preterit, which appears to have acted as the default tense for her in the earlier stages. She was able to correctly identify more of the imperfective events, such as the actions in progress and the future/intention events, which illustrates that she was gradually learning to apply the correct values for the preterit and the imperfect. Since she modified the achievements and now the states still somewhat randomly with both tenses, it appears that L1 transference is no longer affecting her production. She no longer preferred the preterit for states, as would be required in English. The values for [+/- FINAL], though, have obviously still not been completely set or specified for the morphology.

With respect to the aspectual oppositions, by the end of the experiment, Alice was able to consistently identify the habitual events and many of the completed events. The one problem area that persisted throughout the entire experiment was with future/intention events. It appears that she had difficulty in relating different times in the past with one another without including the speech time or present:

(6) ...que su novio no *fue a ir a la fiesta y que ya no *quiere salir con ella.

That her boyfriend no go-PRET-3rd-sg to go-INF and that already no want-PRES-3rd-sg go out-INF with her

'...that her boyfriend did not go to go to the party and that he no longer wants to go out with her.'

Alice assumed with the first event that the boyfriend did not go to the party, so she modified it using the preterit (which is ungrammatical). With the second event, she assumed that the boyfriend still did not want to go out with his girlfriend at the moment of speech as well as the reference time of the sentence, so she chose the present to represent its current nature.

5.3.2 Beth

At the advanced level, Beth's usage of the preterit and the imperfect were almost the exact opposite of Alice's during Stage 1. Instead of overusing the preterit, she overused the imperfect. Her higher percentage of adherence to the POA (78%) illustrates that she is much more sensitive to the inherent lexical aspect of the verbs. In addition, unlike Alice, she does not appear to be influenced by the L1, which is seen in her

preference of the imperfect for all of the states. Her use of the imperfect and the correct identification of many of the imperfective events demonstrates that she was further along in her specification of the aspectual values than the learners at the intermediate stage. At this point, however, she still had not yet fleshed out the proper aspectual specifications, as she identified 63% of the completed actions.

By Worksheet #2, Beth demonstrated almost total match up of lexical to grammatical aspect for the activities, accomplishments and achievements. Instead of only using the imperfect for states, she now modified them equally in the preterit and imperfect. This does not, however, appear to reflect a sudden 'despecification' of values. Beth modified six of the eleven states using the imperfect, which was only two fewer than the native speakers (recall the low distributional bias built into this worksheet). It seems that unlike the previous stage where she preferred the lexical and grammatical aspectual match up for states with the imperfect regardless of the context, at this stage she had realized that this match up does not always occur. Therefore, she was willing to apply the opposing grammatical aspect to states.

By the final stage at 9.0 months, Beth appeared to have completely specified the features for [+/- FINAL]. Although this worksheet displayed a fairly high distributional bias for the lexical to grammatical aspectual match up, Beth was able to correctly identify all of the items that violated this lexical and grammatical match up. Her writing sample taken two months earlier at 7.0 months also demonstrated her ability to manipulate the grammatical aspect according to the (im)perfectivity of the events despite their lexical aspect.

(7) Estaba muy agradecida a la persona que hizo la decision para mí, pero al mismo tiempo estaba un poco triste de que Karyn no iba a llevarme al médico en sus brazos para que no me cansara en camino.

be-IMP-1st-sg very grateful to the person who make-PRET-3rd-sg the decision for me, but at the same time be-IMP-1st-sg a little sad that Karyn no go-IMP-3rd-sg to carry-INF me to the doctor in her arms so that no get tired-IMP SUBJ-1st-sg on the way

'I was very grateful to the person who made the decision for me, but at the same time I was a little sad that Karyn was not going to carry me to the doctor in her arms so that I didn't get tired on the way.'

In this example, Beth was describing the day she was sick and went to get help from the program office. Using the imperfect, she explained the two simultaneous events in progress of how she was grateful for the person who made the decision and how she was sad that she would not be carried to the doctor. She correctly modified the completed event of making the decision with the preterit and also the future/intention event with the imperfect, which she was not able to successfully identify during the first stages of the experiment.

5.3.3 Data from other subjects

TABLE 17: Specific Categorial and Grammatical Match Up (other subjects)

	States		Activities		Accomplishments		Achievements	
WORKSHEET #1	***I (8)**	**P (2)**	**I (13)**	**P (0)**	**I (0)**	**P (0)**	**I (1)**	**P (15)**
Kate	4	6	10	3	0	0	1	14
Mitch	2	8	5	7	0	0	0	16
Tim	10	0	9	4	0	0	6	10
	States		**Activities**		**Accomplishments**		**Achievements**	
WORKSHEET #2	**I (8)**	**P (3)**	**I (5)**	**P (0)**	**I (0)**	**P (2)**	**I (3)**	**P (13)**
Kate	9	2	4	1	2	0	3	13
Mitch	8	3	3	2	0	2	3	13
Tim	7	4	0	5	0	2	3	13
	States		**Activities**		**Accomplishments**		**Achievements**	
WORKSHEET #3	**I (12)**	**P (3)**	**I (3)**	**P (1)**	**I (0)**	**P (0)**	**I (4)**	**P (16)**
Kate	13	2	2	2	0	0	7	13
Mitch	11	4	3	1	0	0	4	16
Tim	10	5	3	1	0	0	4	16

* Numbers in parentheses represent native speaker usage.

The other three subjects appear to follow the same stages as Alice and Beth (Table 17). For Worksheet #1, despite his more advanced level, Mitch, like Alice, seems to have experienced L1 transference, which is seen is his high use of the preterit with achievements and states. He therefore had not yet completely relinquished the L1 aspectual values. Kate, on the other hand, did not seem to be influenced as much by the L1. She preferred the imperfect for activities, but for states, she used the preterit and the imperfect almost equally. Like Beth, Tim preferred the imperfect for both states and activities. Because of his higher level, he was more sensitive to lexical aspect. It appears

then, that he had already lost the L1 values for the aspectual features but had not yet completely reset them for the L2 values.

For Worksheet #2, Kate and Mitch seemed to be at the same stage as Beth was for Worksheet #1 (Table 17). Their preference for the preterit with the achievements and the imperfect for states indicates that they were more aware of the inherent lexical aspect and were trying to match it with its corresponding grammatical aspect. With respect to the activities, Kate continued to modify them predominantly with the imperfect while Mitch randomly inflected them. Despite her overall high match up of lexical to grammatical aspect, however, Kate incorrectly modified the accomplishments with the imperfect while Mitch correctly modified them with the preterit.

Tim's production for Worksheet #2 was quite different from the previous worksheet (Table 17). He displayed a much higher preference for the preterit and did not use the imperfect for any of the activities (which all required the imperfect), thus illustrating his persisting lack of specification for [-FINAL]. He only made one error with the states in which he used the imperfect for a completed action. He was able to identify all of the other uses where the states referred to completed events. He continued his lexical to grammatical aspectual match up with achievements and also with accomplishments.

For Worksheet #3, Kate continues to match the lexical to grammatical aspect, but not as much as she did for the previous worksheet (Table 17). She accepted the possible mismatching of lexical to grammatical aspect and correctly identified many of the

mismatches in the experimental design. She was still under the process of determining the correct feature specification.

Mitch and Tim's production fell short behind Beth's (Table 17). They both appeared to have specified the values for the preterit and the imperfect and also accepted a mismatch of lexical and grammatical aspect. The very few errors they made involved imperfect events with states for which they used the preterit.

With respect to the aspectual oppositions, all three subjects were consistently able to identify the habitual and future/intention events, and most or all of the completed events. The opposition with which all three still had difficulty at the end of the nine months was events in progress. Like Alice, most likely due to the narration of the stories taking place in the past, they interpreted the events as being completed and bound to the reference time. They did not consider that the focus of the event was not from the speech time, but rather the moment at which the event took place in the past:

(8) Un día yo estaba viendo mi programa favorito cuando me di cuenta de que ya no podía ver la pantalla desde muy lejos.

One day I be-IMP-1st-sg see-GER my program favorite when realize-1sr-sg that already no be able-IMP-1st-sg see-INF the screen from far away

'One day I was watching my favorite program when I realized that I could not see the screen from far away.'

In this example from Worksheet #3, the author is describing the moment when he realized that he was no longer able to see the television set from far away. The use of the imperfect here illustrates that this was an event already in progress that continued on after the day being described. Two of the subjects modified *poder*, however, in the preterit,

which would imply that the moment the author could no longer see the screen began at that very same moment, which is logically not the case. They failed to see the point of view from within the reference time.

To summarize, the L2 learners eventually have access to the L2 functional categories and feature values. Beth, above all, and Mitch and Tim consistently produce verbs that are correctly modified with both [+/- FINAL] values. Therefore, the Failed Functional Features Hypothesis is incorrect in its assumption that these values are not accessible to the L2 learner.

5.4 New proposal for L2 acquisition: Constructionism

5.4.1 Definition and stages of Constructionism

It is clear that the acquisition of L2 aspect takes place over a number of stages and that the L2 learners' choice of grammatical aspect changes from stage to stage. The POA Hypothesis, however, does not acknowledge any of these stages for L2 acquisition. Therefore, a new framework is necessary to account for the differences that occur.

Herschensohn (2000a) analyzes the L2 learning process and describes how L2 parameter setting takes place. She states the following:

> "...L2 learning is substantially a matter of vocabulary and morphology acquisition with progressive fleshing out of [+/- interpretable] features to gain the correct value for a given parameter...L2 parameter setting... is not an all-at-once phenomenon, but progressive learning, construction by construction. Eventually, this constructionist acquisition may result for expert L2ers in a virtually complete setting of a given parameter to the L2 value...The intermediate L2er does not have the correct value across the board, but is approaching the L2 in a "constructional" way, gaining the parametric building blocks by setting the correct value in a particular type of morpholexical construction." (109-10)

As the Minimalist Program predicts, Herschensohn (1998, 2000a) argues that morphology and the lexicon are more crucial to L2 acquisition than is syntax. Constructionism adopts the Minimalist position that cross-linguistic variation is morpholexical, and similar to the Lexical Learning Hypothesis (Clahsen et al., 1994, 1996; Müller, 1994, 1996), it posits that the acquisition of grammar consists of learning the lexical and morphological items and their associated properties.

The main premise of Constructionism is that the L2 competence at the early and intermediate stages is not homogeneous, as many hypotheses predict. It therefore proposes that an adequate treatment of L2 production data "must be heterogeneous in considering all the factors that may contribute to faulty production due to competence and performance deficits" (Herschensohn, 2000a:110). In order to account for the different stages and the variability found in the L2 data, Constructionism adopts the following hypotheses: Full Transfer (Schwartz and Sprouse, 1996), modified underspecification (Eubank, 1996) and morphological processing deficits (Lardiere, 1998).

(9) Stages of Constructionism (Herschensohn, 2000a)

1. *Initial state*:

   L1 values persist

2. *Intermediate state: Underspecification of [+/- interpretable] features*

   a. L1 value is unset

   b. L2 constructions are progressively gained

   c. [+interpretable] morphology is gradually acquired

3. *Final expert state*

   L2 values for syntax and mastery of morpholexicon

According to Constructionism, the L2 learner progresses from the construction of individual lexical items to a single morpholexical class to all relevant morpholexical classes. There are then three specific stages that take place during L2 parameter setting. Initially, L2 learners transfer L1 values of syntactic and morphological properties (i.e. the abstract features that determine syntactic movement) over to the L2. Since they already exist in the L1, functional categories are initially available to the L2 learner, but they are underspecified for the L2 (Eubank, 1996) and have the option of projecting or not (Grimshaw, 1994). As argued by Lardiere (1998) and the Missing Inflection Hypothesis (Haznedar, 1997), cases of defective morphology or bare lexicon do not imply that categories do not project. Due to the limited morphology and lexicon of the early L2 learners, the realization of functional projections is limited. The acquisition of syntax gradually takes place as the L2 learner masters the specific lexical patterns. L2 learners depend on formulaic speech, specific chunks of set phrases that are pieces of the lexicon.

Once these chunks have been mastered, the L2 learners then deconstruct them to delineate the syntax (Myles, et al., 1998, 1999).

Herschensohn (2000a) points out that it is difficult or "virtually impossible" to isolate the initial L2 state, mainly because it is not possible to determine at what point the L2 learner can be considered as possessing the L2 grammar. In addition, it is impossible to determine if the L2 grammar has been restructured from the very initial state and is then at the "Initial $^{+1}$" state. Finally, competence and performance issues can complicate the interpretation of the production data.

The second stage of Constructionism involves an "extended period of interlanguage development that includes an undoing of L1 values accompanied by the learning of L2 vocabulary and morphosyntax" (2000a:204). The period of underspecification that originated in the initial stage persists throughout this intermediate stage. Based on the Coalition Approach (Hirsh-Pasek and Golinkoff, 1995), which states that L1 acquisition takes place as a child draws on the coalition of resources, such as prosodic input and social interaction, Constructionism poses that L2 learners also depend on a "coalition of resources" as they gradually acquire the L2 lexical classes. These resources consist of L1 transfer, access to UG from the L1, primary linguistic data in the classroom or natural environment, instructional bootstrapping and processing and problem solving strategies involving cognitive learning strategies. With these resources, the L2 learner tests various hypotheses regarding the L2 grammar, which then results in extensive variability or randomness in their IL production as the morphological values are underspecified (Eubank, 1996). The IL during this stage therefore demonstrates

evidence of target-like constructions (i.e. sentences that are equal to those of native speakers) accompanied by numerous errors. The L2 learners often depend on specific constructions to "scaffold" or facilitate their L2 acquisition. As soon as the structure of the L2 is complete, they no longer need to depend on scaffolding as a learning strategy because they have acquired most of the L2 values. The areas that remain to be mastered are those in more peripheral (as opposed to core) aspects, which will be gradually refined to include the correct feature specifications as the vocabulary and morphology are acquired.

At the final expert stage, Constructionism posits that the near native L2 speaker has a "virtually complete L2 grammar and morphology with residual incompleteness of peripheral characteristics" (Herschensohn, 2000a:221). In other words, the L2 learners have acquired the major L2 parametric values and are able to use them in production and grammar judgements. The residual incompleteness is due to Critical Period deficiencies that result from the slower processing L2 learners experience from that of native speakers. Their final state demonstrates that they have acquired many of the subtle features and many of the lexical idiosyncrasies of the L2 and have achieved native-like competence.

Sorace (1993) further argues that the judgements L2 near native speakers make regarding the L2 indicate that they make use of positive evidence to assist acquisition, but the degree to which they are able to do so is restricted by the L1. In her study on the L2 acquisition of Italian unaccusatives by L1 speakers of English and French, she found the English speakers did not notice the positive evidence because their L1 does not share

many of the same properties as the L2. The French speakers, on the other hand, did notice the positive evidence but made divergent judgements based on the similar but different properties in their L1. As a result, they are capable of native-like performance despite the fact that their L2 representations are significantly different from those of the native speakers.

Herschensohn's analysis is based on the data collected on verb raising and adverb placement in L2 French (1998). In French, the verb must raise to I, so adverbs and negation are found in between the inflected verb and the verbal complement. In English, however, the V cannot raise to I, so it remains in situ following adverbs and negation ('not'). Herschensohn found that the early L2 learners display errors such as neg-V and A-V order, which are the result of L1 interference. At the next stage, the L2 learners raise the French verb above the negation and inflect the thematic verb, which represents an intermediate period where the weak feature for English verbs has been lost. In another study with very advanced L2 learners in which the subjects had to rate a number of sentences with adverbs and negation in order of grammaticality, Herschensohn (1997) found that the L2 learners displayed native-like judgements and were thus able to acquire the L2 feature values.

5.4.2 Constructionism applied to L2 aspect

(10) Stages of aspect in terms of Constructionism

1. *Initial state*:

   L1 value [+perfective] persists

2. *Intermediate state:* underspecification of [+/- interpretable] features

   a. L1 [+perfective] unset

   b. L2 constructions progressively gained as L2 learner depends on inherent lexical aspect to flesh out the features [+/- FINAL] associated with the preterit and imperfect

   c. [+interpretable] morphology is gradually acquired

3. *Final expert state*:

   L2 values for perfective and imperfective aspect and mastery of morpholexicon

(10) illustrates the various stages of L2 aspect incorporated into Herschensohn's (2000a) model. At the early intermediate, and for some learners most likely on through the late intermediate stage of Spanish, the Anglophone L2 learners transfer the abstract feature value [+perfective] associated with the English eventive verbs to the L2 at Inner Aspect Phrase. Since Outer Aspect checks Inner Aspect Phrase when checking the morphology, the result, then, is the overuse of the preterit, as seen in Alice's production during the first half of the experiment and Kate's (somewhat) and Tim's initial performance. Even though the states are not associated with the abstract feature [+perfective] in English, they must be expressed using the simple past morphology,

which does. Therefore, the high frequency of the preterit with states is due to the transfer of [+FINAL] from the English morphology used to modify them in the L1, as seen in example (11):

(11) *Fue [Eran] las 8:31 cuando nosotros llegamos.
Be-PRET-3rd-sg the 8:31 when we arrive-PRET-1st-pl
'It was 8:31 when we arrived.'

In this example from Alice's second worksheet, she used the preterit to express the hour, which always requires the imperfect. It is possible that she interpreted the moment at "8:31" as being a completed event, but the fact that she used the singular form to match the expletive "it" instead of the plural, which agrees in number with the hour "eight," seems to indicate that this was a direct translation from English. The feature [+FINAL] associated with the English morphology is more salient than the feature [-FINAL] associated with the inherent aspect of states, which is why the morphology is transferred. [-FINAL], however, does appear to be transferred over to the L2 along with [+FINAL], since it is initially available to the L2 learners for other lexical classes.

From the mid to late intermediate stage, which is where the second stage of Constructionism appears to begin, the L1 interference with the overuse of the preterit is no longer evident. This is particularly noticeable through the preference for the imperfect with states. The L2 learners have begun to unset the L1 value [+perfective] and accept the feature [-FINAL] of the imperfect for states. At this stage, for the first time the learners become sensitive to the lexical-grammatical aspectual bias that exists in native input, but they are not completely swayed by it. The L2 learners progress from acquiring

individual items to single morpholexical classes and then finally to all relevant morpholexical classes. So while they are able to access the [-FINAL] nature of states and the [+FINAL] nature of achievements, they are still uncertain about the inherent aspect of activities, which then remain underspecified.

From the late intermediate to early advanced level of Spanish (i.e. later on during the second state of Constructionism), once the L2 learners are aware of lexical aspect and begin to match it with its corresponding grammatical aspect, most likely based on primary linguistic data, they realize that the grammatical aspect can be applied to any lexical class of verb. At this point, however, the feature values do not appear to be completely specified as the L2 learners persist in applying the incorrect morphology. While there is an overall adherence to the POA for an individual lexical class of verbs, random feature checking still seems to exist in the IL. For example, for Worksheet #1, Beth modified six of the achievements with the imperfect when only one was [-FINAL]. Assuming that she had already passed through the L1 transference period and then through adherence to the POA for achievements, it appears that she had accepted both tenses for achievements, although she still preferred to modify them overall with the preterit. Kate's progress parallels this idea. For Worksheets 1 and 2, she clearly preferred the preterit for achievements, which matched the native speaker responses. By Worksheet #3, however, she suddenly modified more of them with the imperfect regardless of the context. She therefore did not yet have the feature [+FINAL] completely specified.

By the final stage of L2 acquisition of aspect, the advanced learners are no longer dependent on particular resources to determine the appropriate choice of grammatical aspect. Whereas during the first stage, the L2 learners relied on L1 transference and at the second stage they relied on the inherent lexical aspect of the verb, the advanced learners are capable of seeing the compositionality of aspect and take all of the various factors in consideration, such as the overall situation or context in which the event takes place, adverbs or other adjuncts that provide aspectual information, and the aspectual opposition of the event. The persisting errors that exist at this stage are events that do not have the lexical-grammatical bias or events in which the choice of grammatical aspect depends on the point of view or even the stylistic preference of the speaker, as in example (12):

(12) Yo sabía que ella estaba muy enojada y yo decidí que era mejor no decirle nada.

I know-IMP-1st-sg that she be-IMP-3rd-sg very angry and I decide-PRET-1st-sg that be-IMP-3rd-sg better no say-INF her nothing.

'I knew she was very angry so I decided it was better to not say anything to her.'

In this example from Worksheet #3, the author is describing the best way to deal with his angry mother and decided to not say anything to her. In this case, the author is pinpointing a specific moment during his decision-making and also the mother's angry state in which the idea of speaking to her was better left unrealized. In other words, the speaker is focusing on the unbounded nature of this event, and opted for the imperfect. While Beth was able to see this interpretation, Tim and Mitch modified the event using

the preterit, thus interpreting the author's point of view as coming from the present or moment of speech, implying that the event was completed and bound to that moment in the past. In another example from Worksheet #3, however, all three students correctly interpreted the author's perspective:

(13) No fue su intención castigarme por ser miope.
No be-PRET-3rd-sg her intention punish-INF me for be-INF near-sighted.
'It wasn't her intention to punish me for being near-sighted.'

In this example, which describes the author's reconciliation with his mother after being sent to his room and then allowed to come out, the author refers to the mother's intention as being completed as his punishment had already ended by this moment during the discourse. Therefore, the choice of the preterit reflects the bounded nature at the reference time, as well, as the speech time. Although the advanced learners have some difficulty in interpreting the actual aspect of a given event, they are able to comprehend many subtleties and have in general achieved L2 parameter setting for aspect.

In order to account for the lingering difficulties in interpreting aspect at the advanced and near-native stages, Sorace (1997) discusses the differences between the core and periphery in terms of lexico-semantic features. In her study on Italian and French unaccusative verbs, she finds differences between the features that determine the auxiliary selection for the past tense with certain participles. Unaccusatives, which have theme-like arguments, require the verb *essere* 'to be', while unergatives, which have agentive arguments, require the verb *avere* 'to have.' Based on the systematic ranking of

syntactic acceptability of auxiliaries by native speakers, Sorace claims that there are various dimensions that determine core unaccusatives from peripheral unaccusatives. Core unaccusatives are dynamic/telic/concrete, while peripheral unaccusatives have varying degrees of the opposite values (static/atelic/abstract). Core unaccusatives clearly take *essere*, but peripheral unaccusatives can accept *avere*. French marks the unaccusative/unergative distinction similarly using *être* 'to be' for unaccusatives and *avoir* 'to have' for unergatives. In French, however, only a handful of unaccusatives takes the verb *être*, which makes it much more variable than Italian.

In her (1993) comparison of L2 learners of Italian and French (whose L1 was the opposite language), Sorace finds that the semantic hierarchy in Italian influences both groups of L2 learners. She argues that since Italian is syntactically more systematic than French, French L2 learners of L2 Italian can more easily and successfully link the semantic features to the syntax. Italian learners of L2 French experience more difficulty with this linking because according to Sorace, French does not provide as many syntactic clues with respect to auxiliary selection. In both cases, the very advanced speakers demonstrate indeterminacy with respect to the peripheral unaccusatives. Herschensohn (2000a) points out that these resulting difficulties are not due to deficient parameter resetting, but rather "the incomplete mastery of semantic features of lexical items" (158). The more universal, core features are simply more thoroughly acquired than the lexical items, whose features may be more subtle.

With respect to the acquisition of L2 Spanish, certain lexical items may be inherently more (a)telic in one language than the other. It is possible, then, that the

inherent lexical (a)telicity is so strong that regardless of the context or temporal adjuncts, it cannot accept the opposing grammatical aspect. In the following example taken from Worksheet #1 (Appendix 1), both achievements were marked with the preterit by all of the native speakers of the control group:

(14) Cuando yo salí de la casa, llegaron unos amigos.
when I leave-PRET-1st-s from the house, arrive-PRET-3rd-pl some friends
'When I left the house, some friends arrived.'

Llegar 'to arrive' marks a bounded action with no duration, thus requiring the preterit. *Salir* 'to leave', however, follows the temporal adverb *cuando* 'when,' which accepts both a bounded and unbounded (progressive) interpretation. In English, this sentence could also be interpreted as "when I was leaving the house" (i.e. in the process of getting my things, putting on my coat, or walking out the door). A couple of the native speakers from the control specifically stated that they did not accept this progressive interpretation with *salir* (most likely due to its inherent lack of duration). Therefore, lexical subtleties such as these and other cross-linguistic semantic differences must be learned on an item-by-item basis and with continuous exposure to the target language.

In terms of feature checking at Inner and Outer Aspect Phrase, due to the variability in the assignment of aspectual morphemes and the lack of lexical to grammatical aspectual match up, I propose that, in accordance with Constructionism, the difficulties involved in the acquisition of Spanish L2 aspect involve the acquisition of the

functional categories, Inner and Outer Aspect Phrases, where the preterit and imperfect morphology is assigned in accordance with the (a)telicity of the VP or other temporal adjuncts. The intermediate level production reflects the incorrect mapping of features assigned by the Outer Aspect Phrase to their corresponding aspectual morphemes. In other words, the L2 learners do not realize which feature corresponds to the perfective inflections and which feature corresponds to the imperfective inflections (i.e. Outer Aspect Phrase has either failed to check [+FINAL] for the preterit or no feature at all for the imperfect at its Spec).

There are two possible explanations for the errors in feature mapping. The first is that source of errors lies in Outer Aspect Phrase where the preterit and imperfect morphology is checked in accordance with the (a)telicity of the VP or other temporal adjuncts. The incorrect use of grammatical aspect is then the result of the misreading by Outer Aspect Phrase of the features checked at the Spec of Inner Aspect Phrase. The other possibility is that the L2 learners incorrectly check the features for the subevents in the Inner Aspect Phrase. For example, if the E_2 of a perfective transition is assigned the feature [-FINAL], Outer Aspect Phrase will interpret an imperfective reading and then check no feature at the Spec of Outer Aspect Phrase for the imperfect tense. If the E_2 of an imperfective process is assigned the feature [+FINAL], Outer Aspect Phrase will interpret a perfective reading and then check [+FINAL] at its Spec for the preterit tense. Although it is difficult to determine exactly which Aspect Phrase is the culprit, it is clear that a mismapping in either phrase, or possibly both, is taking place.

In addition to the difficulties with the feature mapping at Inner and Outer Aspect Phrases, there are other plausible explanations that add to the difficulties in L2 aspect. García and v. Putte (1988) find differences in the way L1 and L2 speakers analyze each verbal action. The L1 Spanish speakers focus on the general aspect that was being established in the particular scene or passage and continued with that same aspect until there was an obvious interruption or change of scene. The L2 learners tended to focus on an individual phrase or sentence and did not consider the entire scene. The experimental design here with the fill-in-the-blank exercises easily lends itself to the line-by-line analysis that García and v. Putte find. In example (15), taken from Worksheet #1, all five subjects responded to the three future/intention events with the preterit:

(15) Hay un día en particular que recuerdo muy bien. Yo *tuve que estudiar, mi mejor amigo Ricardo *necesitó cuidar a su hermano, y mis primos Juan y Alfredo no *fueron a hacer nada, pero al final decidimos ir a una fiesta.

there is one day in particular that remember-PRES-1st-sg very well I have-PRET-1st-sg to study-INF my best friend Richard need-PRET-3rd-sg take care-INF of his brother and my cousins John and Alfred no go-PRET-3rd-pl to do-INF nothing but in the end decide-PRET-1st-pl go-INF to a party

'There is one day in particular that I remember very well. I had to study, my best friend Richard had to take care of his brother, and my cousins John and Alfred were not going to do anything, but in the end we decided to go to a party.'

This sentence describes a number of things that the author and his friend and cousins had to or were going to do on a particular day, but in the end they decided to do something else instead. Since the paragraph opened with the temporal reference, "There is one day in particular," the subjects interpreted this as a change of scene in which the main events

were about to be presented. If they had finished reading the entire sentence, they would have seen that none of these events took place and were therefore unrealized intentions that required the imperfect. The native speakers, on the other hand, took the entire situation into account and chose the imperfect.

Another example, which is seen in example (6), is the influence of the present or speech time on the past tense narration. Since the events that took place are being described or narrated in the past tense, the L2 learners want to automatically interpret them as being completed. They fail to see the perspective from within the event or reference times and depend more on their vantage point at the present. As a result, they are often not able to correctly identify the events in progress.

Constructionism is an attractive framework to describe the various stages of the acquisition of L2 aspect for several reasons. First of all, it explains that because of L1 transfer, beginning and intermediate L2 learners do not apply the proper morphology to imperfective or perfective situations. The strong tendency of modifying states in the preterit and rarely in the imperfect appears to be due to the fact that in English, they cannot be modified using progressive tenses. The L2 learners are transferring the L1 value [+perfective] over to the L2.

Another benefit of Constructionism is that it accounts for the variability that occurs at times in intermediate L2 production. Although the intermediate learners matched the lexical to grammatical aspect, they overall appeared to inconsistently and randomly inflect the various lexical classes of verbs. During this stage of underspecification, the L2 learners are losing the value [+perfective] associated with all

English verbs and beginning to map it to perfective situations exclusively. Instead of depending on the L1 to specify the feature values, they begin to focus on the inherent lexical aspect of the verb to help guide them with the assignment of grammatical aspect.

Finally, Constructionism accounts for how advanced learners eventually adhere to the distributional bias that native speakers demonstrate in the use of morphemes with specific lexical classes of verbs. Based on Andersen's (1986c, 1988, 1993) studies and the analyzed speech, it is highly logical that this bias exists in native speaker speech, as the perfective and imperfective inherent lexical aspect naturally accepts the corresponding grammatical aspect. However, adult L2 learners are initially not capable of processing the morphological features involved with the preterit and imperfect tenses, let alone those of the inherent lexical aspect of the Spanish verbs. In spite of the lexical bias they may hear in the native speaker input, they cannot simultaneously tend to form and meaning. After enough exposure to the natural environment and/or instruction, they are finally able to associate the grammatical morphemes with the aspect of any given situation and replicate the production of native speakers. Eventually, they are able to see that the inherent lexical aspect does not always determine the overall aspect of an event and that they must weigh all other possible factors.

5.5 Conclusion

This chapter analyzed the data presented in Chapter 4 in terms of the most widely investigated hypothesis for the acquisition of L2 aspect, the Primacy of Aspect Hypothesis. Section 5.1 presented the data that illustrated that the POA does not

adequately account for the early stages of L2 aspect, nor does it explain the variability found in intermediate L2 production. As VanPatten discovered, adult L2 learners cannot simultaneously focus on form and content in early stages of acquisition. Therefore, it seems highly illogical that the early to intermediate L2 learners of Spanish are able to associate inflectional morphemes with lexical aspect.

Section 5.2 discussed the link between morphology and syntax and how they interact during L2 acquisition. Since the early learners were found to produce both the formal features [+/- FINAL] associated with the aspectual morphology even when they had not completely acquired the morphological paradigms, it was argued that morphology and syntax operate independently of one another in L2 acquisition.

Section 5.3 analyzed in detail the production data of Alice, the lowest ranked subject at the low intermediate level, and Beth, the highest ranked subject at the advanced level, to further trace the development of L2 aspect. Alice experienced several stages throughout the nine months abroad, beginning with the overuse of the preterit, then continuing with a period of underspecification in which she appeared to randomly inflect the verbs with either aspect in the worksheets as well as in her spontaneous production. At the last stage of the experiment, she began to display an adherence to the POA with some of the lexical classes of verbs. Beth, on the other hand, did not display an overuse of the preterit but rather the imperfect at the beginning of the experiment. As the year progressed, she displayed a greater adherence to the POA for all of the lexical classes of verbs as she continued to specify the features [+/- FINAL] for the preterit and imperfect

morphology. By the end of the experiment, both formal features were fully specified in her L2 production and she was able to identify even the subtle uses of aspect.

Section 5.4 presented a recent theory to explain the data on L2 aspect, Constructionism. At the first stage of L2 acquisition, the L1 is transferred over to the L2. During the second stage, the L1 feature specifications are unset, which results in a period of underspecification for the L2 values. At the final stage, the feature values are specified for the L2 and complete parameter setting takes place. In the first acquisition stage of aspect, the L2 learners transfer the feature [+perfective] associated with English eventive verbs and the feature [+FINAL] associated with the simple past tense morphology. At the second stage, they lose the L1 [+perfective] value but are not yet able to set the L2 values of [+FINAL] for the preterit and [-FINAL] for the imperfect. In the meantime, they rely on the inherent lexical aspect of the verbs to assign the grammatical morphology. The POA, therefore, becomes a guide that aids them in determining the aspectual feature specification. At the final stage, they have completely set the L2 values and are able to weigh all of the responsible factors for determining the aspect of the event, such as adverbs and adjuncts, stylistic preference, context and aspectual opposition. In the end, their L2 competence parallels the competence of native speakers.

The overall improvement of –3% to +47% in morphological accuracy and +10% to +39% in aspect accuracy prove that all five subjects benefited from learning in the target environment. The various stages they passed through indicate that their ILs were constantly changing, and most likely due to the primary linguistic data they received. In

Alice's case, upon arrival, her heavy reliance on the L1 feature values and lack of adherence to the POA support Prévost's (1997) claim that her grammar system was not able to handle the processing load of simultaneously tending to the inherent lexical aspect of the verbs and their form. After living in the natural environment and receiving native input, her grammar eventually reached the level of complexity that enabled her to match the lexical to grammatical aspect to help guide the aspectual feature specification. In addition, Beth's ability to fine-tune the exceptions and subtleties of L2 aspect at a higher rate than the other advanced students is most likely the result of the eight months she spent in Argentina along with the nine months in Spain.

Chapter 6: Conclusion

6.1 Summary of previous chapters

The data collected here in this study, as well as various others (García and v. Putte, 1988; Salaberry, 1999; Hasbún, 1995), indicate that the acquisition of L2 Spanish aspect consists of a series of stages in which L2 learners rely on different factors in order to approximate the L2 values for the preterit and imperfect tenses. Past investigations have focused on the emergence of the perfective and imperfective aspects in accordance with the lexical aspect of the verb classes. For example, based on the Primacy of Aspect Hypothesis, the Distributional Bias Hypothesis claims that as in L1 acquisition, adult L2 learners initially restrict their use of grammatical aspect to specific lexical classes and then eventually expand the grammatical aspect to all verbal classes. The production data collected here illustrates that this restriction of grammatical aspect does not take place until late stages of acquisition, and that not all categories are restricted at once.

Chapter 1 provided the background information on aspect as a functional category, as well as its definition and its main characteristics, the four aspectual oppositions and the four Vendlerian classes of inherent lexical aspect. In addition, the role of functional categories in first and second language acquisition was presented. Not only are they crucial for driving syntactic movement, but they are also the source of variability between languages.

Chapter 2 further explored Aspect as a functional category in order to provide the theoretical framework on its structural representation. Aspect consists of two functional

categories, Inner and Outer Aspect Phrase, which interpret both lexical and syntactic aspect. Lexical aspect is construed in Inner Aspect Phrase, which intervenes between a lower and a higher projection of VP. Syntactic aspect is construed in Outer Aspect Phrase, which is located above TP. Outer Aspect Phrase checks and deletes the features [+/-FINAL] associated with the preterit and imperfect morphology in accordance with the (a)telicity of Inner Aspect Phrase. If the subperiod E_2 at the Spec of Inner Aspect Phrase is [+FINAL], [-FINAL] is checked and deleted at the Spec of TP and [+FINAL] is checked and deleted at the head of Outer Aspect Phrase in order to map the preterit. If the E_2 at the Spec of Inner Aspect Phrase is [-FINAL] or has not been assigned at all (as in the case with states), only [-FINAL] is checked and deleted at the Spec of TP to map the imperfect.

Chapter 3 presented the leading hypothesis regarding the acquisition of L2 aspect, Primacy of Aspect. Anderson and many other scholars argue that as in L1 acquisition, during the initial stages of L2 acquisition, the use of grammatical aspect is dependent on the inherent lexical aspect of the verb. Contradictory evidence (Salaberry, 1999; García and v. Putte, 1988; Hasbún, 1995; Meisel, 1987), however, does not support this restriction of grammatical aspect to lexical aspect. According to VanPatten (1990), the reason is that early adult L2 learners are incapable of simultaneously tending to form and meaning. Instead of focusing on the morphological features associated with the preterit and imperfect, they are concerned with the meaning associated with the lexical stem.

A summary of current research on the acquisition of functional categories was then provided to introduce a new framework for the acquisition of L2 aspect. The

treatment of aspect as a functional category with corresponding language particular formal features more accurately describes the L2 acquisition process. Parameter setting in either the L1 or the L2 cannot take place until the morphological features of the functional categories have been acquired.

In the case of SLA, there are several issues that influence the eventual acquisition of functional categories and their formal features, mainly the possible link between morphology and syntax, L1 transference of the categories and/or their corresponding features, and the ability to reset the L2 parameter with the L2 values. The Weak Transfer Hypothesis argues that the L1 functional categories are transferred to the IL without their feature specifications. Since it posits a morphosyntactic link, it claims that as the L2 morphology is acquired, L2 feature specification takes place. The Failed Functional Features Hypothesis does not argue for this morphosyntactic link. It posits instead that even if the L2 morphology is completely mastered, the L2 feature specifications are never acquired because the L1 values that were transferred persist throughout L2 acquisition. Unlike the Failed Functional Features Hypothesis, the defective feature mapping and Missing Inflection Hypothesis argue for an independent morphology and syntax, but like the Weak Transfer Hypothesis, they state that the L2 feature specifications are accessible to the L2 learner. After unsetting the L1 values transferred to the Il, the L2 learners are eventually able to apply the correct L2 values.

In terms of aspect, the issues for L2 acquisition are the transference of [+perfective] associated with the L1 English eventive verbs and then the dissociation or unsetting of this feature with the L2 Spanish verbs, the eventual acquisition of the

features [+FINAL] and [-FINAL] associated with the L2 preterit and imperfect, respectively, and whether or not the morphology must be in place in order for these features to be acquired.

The data presented in Chapter 4 revealed two major findings. First of all, despite their defective morphology, the L2 subjects at both the intermediate and the advanced levels had access to the functional categories, Inner and Outer Aspect Phrase, as well as the feature [+FINAL] associated with the preterit and [-FINAL] associated with the imperfect, which are checked and deleted at Outer Aspect Phrase. The production of the two intermediate subjects and Mitch's initial performance at the advanced level demonstrate that the preterit is used with a much higher frequency than the imperfect at the lower levels of study. The more advanced learners appear to use both aspects with the same level of frequency. Despite the lower percentages of usage of the imperfect at the lower levels, however, the worksheets and the spontaneous writing samples contained enough examples to argue that the feature [-FINAL] is accessible early on. The morphology does not need to be mastered in order for the formal aspectual features to emerge on the IL production. Therefore, no morphosyntactic link appears to exist in L2 acquisition.

The other major finding from Chapter 4 was that the POA Hypothesis and the Distributional Bias Hypothesis do not accurately represent the stages of acquisition for L2 aspect. The restriction of grammatical aspect according to all four lexical classes of verbs does not occur during the initial stages of acquisition, nor does it occur uniformly in an all-at-once manner. The subjects from this study did not start matching the lexical

to grammatical aspect until the mid to late intermediate level, and this took place class by class, beginning with achievements and then continuing with accomplishments, states and finally activities. Therefore, the lower the level, the lower the percentage of lexical to grammatical aspectual match up.

Chapter 5 presented a new framework to account for the acquisition of Spanish L2 aspect by L1 English adult learners, Constructionism. Previous research and theories do not consider the multiple stages that take place during the acquisition of Spanish L1 aspect. Constructionism, however, acknowledges the variability found at the different levels and attempts to explain why this variability arises.

During the initial stages of acquisition, English L1 learners of L2 Spanish transfer the feature [-interpretable] [+perfective] associated with English eventive verbs to the IL, which therefore results in the overuse of the preterit. Stative verbs in English are inherently [-perfective] but must be modified using the simple past, whose morphology has the temporal feature [+FINAL]. Instead of transferring the [-interpretable] feature [-perfective], L2 learners transfer the more salient feature [+FINAL] associated with the phonetic realization. As a result, states are also over modified in the preterit.

By the intermediate stage of Constructionism, the L2 learners unset the L1 values and begin to gradually acquire the features [+/-FINAL] for the preterit and imperfect. During the first half of this stage, the L2 learners display random inflection of the preterit and imperfect, which does not reflect temporal adjuncts or a matching with the inherent lexical aspect of the verbs. As they move on to the latter half of the intermediate stage, they begin to focus on the inherent lexical aspect of the verbs to help guide them in

determining the grammatical aspect. This match up, however, does not occur uniformly with all four lexical classes of verbs. It begins with achievements, whose inherent telicity appears to be the most salient, and then eventually continues with accomplishments, states and finally activities.

By the end of the intermediate stage and upon entering the final expert stage, the L2 learners have acquired the features [+/-FINAL] associated with the perfective and imperfective morphology. The difficulty that remains is the fine-tuning involved in sorting out all of the possible factors that determine the aspectual contour and also the semantic subtleties in particular expressions or circumstances that are not obvious to a non-native speaker.

6.2 Further investigation for L2 aspect

In agreement with Freed (1990) and Spada (1985, 1986), the intermediate learners displayed higher overall percentages of improvement than the advanced learners in both the morphology and usage of aspect. This, however, is most likely due to their lower levels of competence, which left them more room for improvement. Although it is apparent that IL competence of all of the subjects improved during their study abroad, further investigation is necessary to isolate the influence of out-of-class contact. The longitudinal progress of classroom only learners is important to determine how beneficial learning in the target environment is. A detailed analysis of the classroom development of L2 aspect compared to the development of the study abroad participants would demonstrate any differences between the two learning environments.

Further investigation is also necessary to examine the initial stages of the acquisition of L2 aspect. Because of the high percentage of L1 transfer at the early intermediate levels of study, it is logical that this percentage would be significantly higher at the beginning levels. The production of first and second year university students of Spanish needs to be analyzed in detail to verify the claims posited by the initial stage of Constructionism.

Similar to previous investigations, this study has focused on the influence of study abroad at the intermediate and advanced levels. Little research has explored the benefits of out-of-class contact on the beginning levels. Most universities require a two-year minimum of foreign language study prior to participating in study abroad programs. Therefore, very few beginning students have the opportunity to experience the initial stages of learning in the target environment. An interesting study would be to compare the development of IL aspect between beginning students who have classroom contact only to beginning students in the target environment. Such a study could determine if native speaker input in out-of-class contact has any influence on the acquisition of L2 aspect.

Finally, very little mention is made in the Spanish language classroom regarding inherent lexical aspect and its influence on grammatical aspect. Some advanced classes at the third and fourth year do dedicate time to lexical aspect and other factors that determine grammatical aspect, but this is usually towards the end of foreign language study. Linguistic "training" on inherent lexical aspect could be provided earlier on, for example by the second year of study, to help initiate the strategy of matching lexical to

grammatical aspect earlier on, which would otherwise not occur until the mid to late intermediate stages of learning. This type of training could possibly facilitate the arduous task of acquiring L2 aspect.

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APPENDIX 1: Worksheet #1

Using the infinitives provided, fill in the spaces using the appropriate conjugation and form of the PAST TENSE:

UNA FIESTA NO TAN ESPECIAL

Cuando yo **ESTABA** (ESTAR) en la secundaria, mis amigos y yo **SALÍAMOS** (SALIR) mucho. Nosotros **ÍBAMOS** (IR) al centro comercial, **JUGÁBAMOS** (JUGAR) a los videojuegos, y de vez en cuando **HACÍAMOS** (HACER) fiestas.

Hay un día en particular que recuerdo muy bien. Yo **TENÍA** (TENER) que estudiar, mi mejor amigo Ricardo **NECESITABA** (NECESITAR) cuidar a su hermana, y mis primos Juan y Alfredo no **IBAN** (IR) a hacer nada, pero al final nosotros **DECIDIMOS** (DECIDIR) ir a una fiesta.

La fiesta **FUE** (SER) en la casa de una amiga mía, la cual **SE LLAMABA** Raquel, y **EMPEZÓ** (EMPEZAR) a las 8:00. Cuando yo **LLEGUÉ** (LLEGAR) allí, **HABÍA** (HABER) mucha gente. Todo el mundo **BAILABA** (BAILAR), **TOMABA** (TOMAR) y **SE DIVERTÍA** (DIVERTIRSE). Inmediatamente yo **VI** (VER) a Raquel en la cocina y **FUI** (IR) allí para hablar con ella. **SUPE** (SABER) que ella **SE SENTÍA** (SENTIRSE) muy deprimida y que ella **INTENTABA CONTROLARSE** (INTENTAR CONTROLARSE) para no llorar. Yo le **PREGUNTÉ** (PREGUNTAR) que le había pasado y me **DIJO** (DECIR) que su novio no **IBA A IR** (IR A IR) a la fiesta y que ya no **QUERÍA SALIR** (QUERER SALIR) con ella. Mientras nosotros **CHARLÁBAMOS** (CHARLAR) Raquel **LLORABA** (LLORAR), y por fin después de una hora, ella **DEJÓ DE LLORAR** (DEJAR DE LLORAR).

ERA (SER) tarde y **HACÍA** (HACER) mucho calor en la casa cuando yo **DECIDÍ IRME** (DECIDIR IRSE). No **ME DIVERTÍA** (DIVERTIRSE) y ya no **TENÍA** (TENER) ganas de quedarme. Cuando yo **SALÍ** (SALIR) de la casa, **LLEGARON** (LLEGAR) mis amigos. Yo les **EXPLIQUÉ** (EXPLICAR) que la fiesta **ERA** (SER) mala, y entonces todos nosotros **FUIMOS** (IR) a mi casa e **HICIMOS** (HACER) nuestra propia fiesta.

Appendix 1 – Gloss

a party not so special

when I be-IMP-1st-s in high school, my friends and I go out-IMP-1st-pl a lot we go-IMP-1st-pl to the mall play-IMP-1st-pl videogames and every once in a while do-IMP-1st parties

there be-PRES-3rd-s one day in particular that I remember-PRES-1st-s very well I have-IMP-1st to study-INF my friend Richard need-IMP-3rd-s to take care-INF of his sister and my cousins John and Alfred no go-IMP-3rd-pl to do-INF nothing but in the end we decide-PRET-1st go-INF to a party

the party be-PRET-3rd-s at the house of a friend who reflex-3rd call-IMP-3rd-s Raquel and begin-PRET-3rd-s at 8:00 when I arrive-PRET-1st-s there be-IMP-3rd-s a lot of people everyone dance-IMP-3rd-s drink-IMP-3rd-s and reflex-3rd have fun-IMP-3rd-s immediately I see-PRET-1st-s Raquel in the kitchen and go-PRET-1st-s there in order to speak-INF with her know-PRET-1st-s that she reflex-3rd feel-IMP-3rd-s very depressed and that she try-IMP-3rd-s control-INF herself in order to not cry-INF I her ask-PRET-1st-s what her happened-PAST PERF-3rd-s and me tell-PRET-3rd-s that her boyfriend no go-IMP-3rd- to go-INF to the party and that no longer want-IMP-3rd-s go out-INF with her while we chat-IMP-1st-pl Raquel cry-IMP-3rd-s y finally after one hour she stop-PRET-3rd-s cry-INF

be-IMP-3rd-s late and do-IMP-3rd-s a lot heat in the house when I decide-PRET-1st-s leave reflex-INF no reflex-1st have fun-IMP-1st-s and no longer feel like-IMP-1st-s stay-reflex-INF when I leave-PRET-1st-s the house, arrive-PRET-3rd-pl my friends I them explain-PRET-1st-s that the party be-IMP-3rd-s bad and then all we go-PRET-1st-pl to my house and do-PRET-1st-pl our own party

APPENDIX 2: Worksheet #2

Using the infinitives provided, fill in the spaces using the appropriate conjugation and form of the PAST TENSE:

EL PRIMER DIA DE CLASE

El primer año que yo **ESTUVE** (ESTAR) en la universidad **FUE** (SER) un año inolvidable. Yo **CONOCÍ** (CONOCER) a mucha gente, **TOMÉ** (TOMAR) muchos cursos interesantes e **HICE** (HACER) muchas cosas nuevas.

Ahora ya no pero antes en situaciones nuevas, yo **ME PONÍA** (PONERSE) muy nervioso. Por ejemplo, no **DORMÍA** (DORMIR) ni **COMÍA** (COMER) y **TENÍA** (TENER) que tomar unas pastillas para los nervios. Me acuerdo muy bien del primer día de clase, el cual no **IBA A SER** (IR A SER) muy fácil para mí. Yo **ME SENTÍA** (SENTIRSE) muy nervioso y **TENÍA** (TENER) un poco de nauseas. Mi primera clase **EMPEZÓ** (EMPEZAR) a las 8:30 de la mañana y yo **QUERÍA** (QUERER) llegar al campus un poco temprano para encontrar el aula. Desde niño yo **TENÍA** (TENER) la tendencia de llegar 15 minutos tarde, así que **DECIDÍ** (DECIDIR) ir en bicicleta para llegar a tiempo.

Cuando **ME MONTÉ** (MONTARSE) en la bicicleta **ME DI CUENTA** (DARSE CUENTA) de que **ESTABA** (ESTAR) descompuesta. Entonces **IBA A TENER** (IR A TENER) que tomar el autobús. Mientras **SALÍA** (SALIR) de mi apartamento, el autobús **PASÓ** (PASAR) por mi parada. Yo **COMENCÉ** (COMENZAR) a correr pero no lo **PUDE** (PODER) alcanzar. **ME SENTÍ** (SENTIRSE) muy frustrado. Afortunadamente, de repente **VINIERON** (VENIR) unos amigos míos en su coche y me **LLEVARON** (LLEVAR) al campus.

ERAN (SER) las 8:31 cuando nosotros **LLEGAMOS** (LLEGAR). El profesor ya **HABLABA** (HABLAR) del curso y los estudiantes **TOMABAN** (TOMAR) apuntes. No **HABÍA** (HABER) ningún lugar donde sentarnos, así que **TUVIMOS** (TENER) que sentarnos en el pasillo. A partir de ese momento, yo nunca **VOLVÍ** (VOLVER) a llegar tarde a clase.

Appendix 2 – Gloss

the first day of class

the first year that I be-PRET-1st-s in the university be-PRET-3rd-s a year unforgettable I knew-PRET-1st-s a lot people took-PRET-1st-s many course interesting and do-PRET-1st-s many things new

now no longer but before in situations new I reflex-1st become-IMP-1st-s very nervous for example no sleep-IMP-1st-s nor eat-IMP-1st-s and have-IMP-1st-s take-INF some pills for the nerves reflex-1st remember-PRES-1st-s very well of first day of class which no go-IMP-3rd-s to be-INF very easy for me I reflex-1st feel-IMP-1st-s very nervous and have-IMP-1st-s a little nausea My first class begin-PRET-3rd-s at 8:30 in the morning and I want-IMP-1st-s arrive-INF to campus a little early in order to find-INF the classroom Since child I have-IMP-1st-s the tendency of arrive-INF 15 minutes late, so decide-PRET-1st go-INF en bicycle in order to arrive-INF on time

when reflex-1st mount-PRET-1st-s on the bicycle reflex-1st realize-PRET-1st-s that be-IMP-3rd-s broken then go-IMP-1st-s to have-INF to take-INF the bus while leave-IMP-1st-s apartment the bus pass-PRET-3rd-s by my stop I begin-PRET-1st-s to run-INF but no it be able-PRET-1st-s reach-INF reflex-1st feel-PRET-1st-s very frustrated fortunately suddenly come-PRET-3rd-pl some friends mine en their car and me take-PRET-3rd-pl to campus

be-IMP-3rd-pl 8:31 when we arrive-PRET-1st-pl the professor already speak-IMP-3rd-s about the course and the students take-IMP-3rd-pl notes no be-IMP-3rd-s no place where sit-INF-reflex so have-PRET-1st-pl to sit-INF- reflex in the aisle after that moment I never return-PRET-1st-s to arrive-INF late to class

APPENDIX 3: Worksheet #3

Using the infinitives provided, fill in the spaces using the appropriate conjugation and form of the PAST TENSE:

DEMASIADA TELEVISION

Cuando yo **ERA** (SER) niña, **MIRABA** (MIRAR) mucho la televisión. Me **FASCINABAN** (FASCINAR) los dibujos animados más que todo. En la mañana **SALÍA** (SALIR) de mi cuarto y los **VEÍA** (VER) hasta que **ME DORMÍA** (DORMIRSE) en la noche.

A mi mamá no le **GUSTABA** (GUSTAR) que yo viera tanta televisión. Ella **SE PREOCUPABA** (PREOCUPARSE) mucho y **PENSABA** (PENSAR) que se me **IBAN A CAER** (IR A CAER) los ojos. Un día yo **ESTABA** (ESTAR) viendo mi programa favorito cuando **ME DI CUENTA** (DARSE CUENTA) de que ya no **PODÍA** (PODER) ver la pantalla desde muy lejos. **TUVE QUE ACERCARME** (TENER QUE ACERCARSE) más al televisor para poderlo ver bien. Cuando mi mamá me **VIO** (VER) así, ella **SE ENOJÓ** (ENOJARSE) y me **GRITÓ** (GRITAR), "¡Ya no quiero que veas más televisión! Ya se te han puesto malos los ojos!" y me **DIJO** (DECIR) que nosotras **ÍBAMOS A IR** (IR A IR) al oculista.

El oculista me **EXAMINÓ** (EXAMINAR) y le **EXPLICÓ** (EXPLICAR) a mi mamá que yo **TENÍA** (TENER) miopía. Mi mamá **SE TRANQUILIZÓ** (TRANQUILIZARSE) un poco pero a mí me **ECHÓ** (ECHAR) la culpa por ver demasiada televisión.

Cuando nosotras **VOLVIMOS** (VOLVER) a casa, mi mamá me **MANDÓ** (MANDAR) a mi cuarto y no me **DEJÓ** (DEJAR) salir hasta la noche. Yo **SABÍA** (SABER) que ella **ESTABA** (ESTAR) muy enojada y yo **DECIDÍ** (DECIDIR) que **ERA** (SER) mejor no decirle nada. Cuando ella me **PERMITIÓ** (PERMITIR) salir, me **EMPEZÓ** (EMPEZAR) a hablar. Me **EXPRESÓ** (EXPRESAR) que puesto que me **QUERÍA** (QUERER) tanto, sólo **DESEABA** (DESEAR) lo mejor para mí y para mi salud. No **FUE** (SER) su intención castigarme por ser miope. Nosotras **NOS ABRAZAMOS** (ABRAZARSE) y todo **QUEDÓ** (QUEDAR) resuelto.

Appendix 3 – Gloss

too much television

when I be-IMP-1st-s girl watch-IMP-1st-s a lot the television me fascinate-IMP-3rd-pl the cartoons more than anything en the morning leave-IMP-3rd-s from my room and them see-IMP-1st-s until reflex-1st sleep-IMP-1st-s in the night

my mom no her like-IMP-3rd-s that I see-IMP SUBJ-1st-s so much television she reflex-3rd worry-IMP-3rd-s a lot y think-IMP-3rd-s that reflex-3rd my go-IMP-3rd-pl to fall-INF the eyes one day I be-IMP-1st-s see-GER my favorite program when reflex-1st realize-PRET-1st-s that no longer be able-IMP-1st-s see-INF the screen from very far have-PRET-1st-s to approach-INF-reflex more the television set in order to it see-INF well when my mom me see-PRET-3rd-s like that she reflex-3rd get angry-PRET-3rd-s and me shout-PRET-3rd-s no longer want-PRES-1st-s that see-PRES SUBJ-2nd-s more television already reflex-3rd your become-PRES PERF-3rd-pl bad the eyes and me say-PRET-3rd-s that we go-IMP-1st-pl to go-INF to the eye doctor

the eye doctor me examine-PRET-3rd-s and her explain-PRET-3rd-s to my mom that I have-IMP-1st-s nearsightedness my mom reflex-3rd calm-PRET-3rd-s a little but to me she throw-PRET-3rd-s the blame for see-INF too much television

when we return-PRET-1st-pl to house my mom me send-PRET-3rd-s to my room and no me allow-PRET-3rd-s leave-INF until the night I know-IMP-1st-s that she be-IMP-3rd-s very angry and I decide-PRET-1st-s that be-IMP-3rd-s better no say-INF her nothing when she me permit-PRET-3rd-s leave me begin-PRET-3rd-s to speak-INF me express-PRET-3rd-s that since me love-IMP-3rd-s so much only desire-IMP-3rd-s the best for me and for my health no be-PRET-3rd-s her intention punish-INF me for be-INF nearsighted we reflex-1st hug-PRET-1st-pl and everything remain-PRET-3rd-s resolved

APPENDIX 4: Individual Summaries of Error Production – Morphology from the Worksheets

ALICE: Worksheet #1

Person

Elicited Form	Gloss	Correct Form	Gloss
divertó	have fun-PRET-3rd-s	divertí	have fun-PRET-1st-s
estuvo	be-PRET-3rd-s	estuve	be-PRET-1st-s
tuvo	have-PRET-3rd-s	tuve	have-PRET-1st-s
fue	be-PRET-3rd-s	fui	be-PRET-1st-s
decidió irse	decide-PRET-3rd-s go-INF-reflex.	decidí irme	decide-PRET-1st-s go-INF-reflex.

Number

Elicited Form	Gloss	Correct Form	Gloss
bailaban	dance-IMP-3rd-pl	bailaba	dance-IMP-3rd-s
tomaban	drink-IMP-3rd-pl	tomaba	drink-IMP-3rd-s
se divertiban	have fun-IMP-3rd-pl	se divertía	have fun-IMP-3rd-s

Morpheme

Elicited Form	Gloss	Correct Form	Gloss	Error
dejió	leave-PRET-3rd-s	dejó	leave-PRET-3rd-s	*-er* for *-ar* morph
preguntió	ask-PRET-3rd-s	preguntó	ask-PRET-3rd-s	*-er* for *-ar* morph
intentió	try-PRET-3rd-s	intentó	try-PRET-3rd-s	*-er* for *-ar* morph
llorió	cry-PRET-3rd-s	lloró	cry-PRET-3rd-s	*-er* for *-ar* morph
necesitío	need-PRET-3rd-s	necesitó	need-PRET-3rd-s	*-er* for *-ar* morph
divertó	have fun-PRET-3rd-s	me divertí	have fun-PRET-3rd-s	*-ar* for *-ir* morph
hacemos	do-PRES-1st-pl	hacíamos	do-IMP-1st-pl	incorrect tense
divertiban	have fun-IMP-3rd-pl	se divertía	have fun-IMP-3rd-s	*-ar* for *-ir* morph
llamarse	call reflex-INF	se llamaba	call reflex-IMP-3rd-s	nonfinite form
sé	know-PRES-1st-s	supe	know-IMP-1st-s	incorrect tense
se siente	feel reflex-PRES-3rd-s	se sentía	feel reflex-IMP-3rd-s	incorrect tense
digo	say-PRES-1st-s	dije	say-PRET-1st-s	incorrect tense
quiere	want-PRES-3rd-s	quería	want-IMP-3rd-s	incorrect tense
hacer	do-INF	hacía	do-IMP-3rd-s	nonfinite form
haya	do-PRES SUBJ-3rd-s	había	do-IMP-3rd-s	incorrect mood, tense
lleguen	leave PRES SUBJ-3rd-pl	llegaron	leave PRET-3rd-pl	incorrect mood, tense
visto	see-PARTICIPLE	vi	see-PRET-1st-s	nonfinite form

Worksheet #2

Person

Elicited Form	Gloss	Correct Form	Gloss
llevé	take-PRET-1st-s	llevaron	take-PRET-3rd-pl

Number

Elicited Form	Gloss	Correct Form	Gloss
fue	be-PRET-3rd-s	eran	be-PRET-3rd-pl
llevé	take-PRET-1st-s	llevaron	take-PRET-3rd-pl

Orthography

Elicited Form	Gloss	Correct Form	Gloss
querrí	want-PRET-1st-s	quise	want-PRET-1st-s
venieron	come-PRET-3rd-pl	vinieron	come-PRET-3rd-pl

Worksheet #3

Person

Elicited Form	Gloss	Correct Form	Gloss
empezó	begin-PRET-3rd-s	empecé	begin-PRET-1st-s

Number

Elicited Form	Gloss	Correct Form	Gloss
fue a caer	go-PRET-3rd-s to fall-INF	iban a caer	go-IMP-3rd-pl to fall-INF
fascinaba	fascinate-IMP-3rd-s	fascinaban	fascinate-IMP-3rd-pl

KATE: Worksheet #1

Person

Elicited Form	Gloss	Correct Form	Gloss
llegué	arrive-PRET-1st-s	llegaron	arrive-PRET-3rd-pl

Number

Elicited Form	Gloss	Correct Form	Gloss
bailaban	dance-IMP-3rd-pl	bailaba	dance-IMP-3rd-s
tomaban	drink-IMP-3rd-pl	tomaba	drink-IMP-3rd-s
se divertiban	have fun-IMP-3rd-pl	se divertía	have fun-IMP-3rd-s
llegué	arrive-PRET-1st-s	llegaron	arrive-PRET-3rd-pl

Orthography

Elicited Form	Gloss	Correct Form	Gloss
hacimos	do-PRET-1st-pl	hicimos	do-PRET-1st-pl

Worksheet #2

Person

Elicited Form	Gloss	Correct Form	Gloss
me puso	reflex become-PRET-3rd-s	me puse	reflex become-PRET-1st-s

Number

Elicited Form	Gloss	Correct Form	Gloss
era	be-IMP-3rd-s	eran	be-IMP-3rd-pl
tenía	have-IMP-1st-s	teníamos	have-IMP-1st-pl

Worksheet #3

Person

Elicited Form	Gloss	Correct Form	Gloss
estuvo	be-PRET-3rd-s	estuve	be-PRET-3rd-s
quedé	remain-PRET-1st-s	quedó	remain-PRET-3rd-s

Number

Elicited Form	Gloss	Correct Form	Gloss
iba a caer	go-IMP-3rd-s to fall-INF	iban a caer	go-IMP-3rd-pl to fall-INF
fascinaba	fascinate-IMP-3rd-s	fascinaban	fascinate-IMP-3rd-pl
iba a ir	go-IMP-1st-s to go-INF	íbamos a ir	go-IMP-1st-pl to go-INF

MITCH: Worksheet #1

Person

Elicited Form	Gloss	Correct Form	Gloss
decidí irse	decide-PRET-1st-s reflex-3rd	decidí irme	decide-PRET-1st-s reflex-1st

Orthography

Elicited Form	Gloss	Correct Form	Gloss
se sentó	feel reflex PRET-3rd-s	se sentía	feel reflex IMP-3rd-s

Morpheme

Elicited Form	Gloss	Correct Form	Gloss	Error
se llama	call reflex-PRES-3rd-s	se llamaba	call reflex-IMP-3rd-s	incorrect tense

Worksheet #2

Number

Elicited Form	Gloss	Correct Form	Gloss
fue	be-PRET-3rd-s	eran	be-IMP-3rd-pl

Worksheet #3

Person

Elicited Form	Gloss	Correct Form	Gloss
me dio cuenta		me di cuenta	

Number

Elicited Form	Gloss	Correct Form	Gloss
fue	be-PRET-3rd-s	eran	be-PRET-3rd-pl

Orthography

Elicited Form	Gloss	Correct Form	Gloss
iba a caer	go-IMP-3rd-s to fall-INF	iban a caer	go-IMP-3rd-pl to fall-INF
fascinaba	fascinate-IMP-3rd-s	fascinaban	fascinate-IMP-3rd-pl

TIM: Worksheet #1

Person

Elicited Form	Gloss	Correct Form	Gloss
preguntó	ask-PRET-3rd-s	pregunté	ask-PRET-1st-s
decidió irse	decide-PRET-3rd-s leave reflex-INF	decidí irme	decide-PRET-1st-s leave reflex-INF
salió	leave-PRET-3rd-s	salí	leave-PRET-1st-s
fueron	go-PRET-3rd-pl	fui	go-PRET-1st-s

Worksheet #2

Person

Elicited Form	Gloss	Correct Form	Gloss
me dio cuenta	realize reflex-1st-PRET-3rd-s	me di cuenta	realize reflex-1st-PRET-1st-s

Number

Elicited Form	Gloss	Correct Form	Gloss
vino		vinieron	
llevó		llevaron	

Worksheet #3

No errors

BETH: Worksheet #1

Person

Elicited Form	Gloss	Correct Form	Gloss
decidió	decide-PRET-3rd-s	decidí	decide-PRET-1st-s

Orthography

Elicited Form	Gloss	Correct Form	Gloss
hizimos	do-PRET-1st-pl	hicimos	do-PRET-1st-pl

Morpheme

Elicited Form	Gloss	Correct Form	Gloss	Error
fuera	go-IMP SUBJ-3rd-s	iba	go-IMP IND-3rd-s	incorrect mood
fuera	go-IMP SUBJ-3rd-s	iba	go-IMP IND-3rd-s	incorrect mood
fuera	go-IMP SUBJ-3rd-s	iba	go-IMP IND-3rd-s	incorrect mood
quisiera	want-IMP SUBJ-3rd-s	quería	want-IMP IND-3rd-s	incorrect mood
tuviera	have-IMP SUBJ-3rd-s	tenía	have-IMP IND-3rd-s	incorrect mood

Worksheet #2

Number

Elicited Form	Gloss	Correct Form	Gloss
era	be-IMP-3rd-s	eran	be-IMP-3rd-pl

Orthography

Elicited Form	Gloss	Correct Form	Gloss
comenzé	begin-PRET-3rd-s	comencé	begin-PRET-3rd-s

Worksheet #3

Person

Elicited Form	Gloss	Correct Form	Gloss
me dio cuenta	realize reflex-1st-PRET-3rd-s	me di cuenta	realize reflex-1st-PRET-1st-s

Number

Elicited Form	Gloss	Correct Form	Gloss
iba a cacr	go-IMP-3rd-s to fall-INF	iban a caer	go-IMP-3rd-pl to fall-INF
fascinaba	fascinate-IMP-3rd-s	fascinaban	fascinate-IMP-3rd-pl

APPENDIX 5: Individual Summaries of Error Production – Morphology from the Writing Samples

ALICE: Sample #1

Morpheme

Elicited Form	Gloss	Correct Form	Gloss	Error
estuvaron	be-PRET-3rd-pl	estuvieron	be-PRET-3rd-pl	*-er* for *-ar* morph

Sample #2

Morpheme

Elicited Form	Gloss	Correct Form	Gloss	Error
andamos		anduvimos		incorrect tense

Sample #3

No errors

Sample #4

No errors

KATE: Sample #1

Number

Elicited Form	Gloss	Correct Form	Gloss
gustaba	like-IMP-3rd-s	gustaban	like-IMP-3rd-pl

Sample #2

No errors

Sample #3

No errors

Sample #4

No errors

MITCH: Samples 1-4

No errors

TIM: Sample #1

Orthography

Elicited Form	Gloss	Correct Form	Gloss
leemos	read-PRET-1st-pl	leímos	read-PRET-1st-pl

Sample #2

Morpheme

Elicited Form	Gloss	Correct Form	Gloss	Error
fuera	be-IMP SUBJ-3rd-s	era	be-IMP IND-3rd-s	incorrect mood

Sample #3

No errors

Sample #4

No errors

BETH: Sample #1

Person

Elicited Form	Gloss	Correct Form	Gloss
hizo	do-PRE-3rd-s	hice	do-PRE-1st-s

Number

Elicited Form	Gloss	Correct Form	Gloss
era	be-IMP-3rd-s	eran	be-IMP-3rd-pl

Orthography

Elicited Form	Gloss	Correct Form	Gloss
pidimos	ask for-PRET-1st-pl	pedimos	ask for-PRET-1st-pl

Morpheme

Elicited Form	Gloss	Correct Form	Gloss	Error
esperar	wait-INF	esperaba	wait-IMP-1st-s	nonfinite form
importa	matter-PRES-3rd-s	importaba	matter-IMP-3rd-s	incorrect tense

NO SAMPLE #2

Sample #3

Person

Elicited Form	Gloss	Correct Form	Gloss
me aburrió	get bored reflex-1st PRET-3rd-s	me aburrí	get bored reflex-1st PRET-1st-s

NO SAMPLE #4

APPENDIX 6: Individual Summaries of Error Production – Aspect from Worksheets

ALICE: Worksheet #1

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
estuvo	be-PRET-3rd-s	estaba	be-IMP-3rd-s	state	mismatch
salimos	leave-PRET-1st-pl	salíamos	leave-IMP-1st-pl	activity	mismatch
jugamos	play-PRET-1st-pl	jugábamos	play-IMP-1st-pl	activity	mismatch
hacemos	do-PRES-1st-pl	hacíamos	do-IMP-1st-pl	activity	mismatch
tuvo	have-PRET-3rd-s	tenía	have-IMP-3rd-s	activity	mismatch
necesitío	need-PRET-3rd-s	necesitaba	need-IMP-3rd-s	activity	mismatch
intentío	try-PRET-3rd-s	intentaba	try-IMP-3rd-s	achievement	match
fue a ir	go-PRET-3rd-s to go-INF	iba a ir	go-IMP-3rd-s to go-INF	achievement	match
charlamos	chat-PRET-1st-pl	charlábamos	chat-IMP-1st-pl	activity	mismatch
llorío	cry-PRET-3rd-s	lloraba	cry-IMP-3rd-s	activity	mismatch
fue	be-PRET-3rd-s	era	be-IMP-3rd-s	state	mismatch
me diverto	have fun-PRET-3rd-s	me divertía	have fun-IMP-1st-s	activity	mismatch
explicaba	explain-IMP-1st-s	expliqué	explain-PRET-1st-s	achievement	mismatch
fue	be-PRET-3rd-s	era	be-IMP-3rd-s	state	mismatch
ibamos	go-IMP-1st-pl	fuimos	go-PRET-1st-pl	achievement	mismatch

Worksheet #2

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
tomaba	take-IMP-1st-s	tome	take-PRET-1st-s	accomplishment	mismatch
hacía	do-IMP-1st-s	hice	do-PRET-1st-s	accomplishment	mismatch
fue a ser	be-PRET-3rd-s to be-INF	iba a ser	be-IMP-3rd-s to be-INF	state	mismatch
me sentí	feel reflex-1st PRET-1st-s	me sentía	feel reflex-1st IMP-1st-s	state	mismatch
tuve	have-PRET-1st-s	tenía	have-IMP-1st-s	state	mismatch
querrí	want-PRET-1st-s	quería	want-IMP-1st-s	state	mismatch
decidía ir	decide-IMP-1st-s go-INF	decidí ir	decide-PRET-1st-s go-INF	achievement	mismatch
estuvo	be-PRET-3rd-s	estaba	be-IMP-3rd-s	state	mismatch
fui a tener que tomar	go-PRET-1st-s to have-INF to take-INF	iba a tener que tomar	go-IMP-1st-s to have-INF to take-INF	achievement	match
comenzaba	begin-IMP-3rd-s	comencé	begin-PRET-3rd-s	achievement	mismatch
podía	be able-IMP-1st-s	pude	be able-PRET-1st-s	state	match
fue	be-PRET-3rd-s	eran	be-IMP-3rd-pl	state	mismatch
había hablado	speak-PAST PERF-3rd-s	hablaba	speak-IMP-3rd-s	activity	mismatch
habían tomado	take-PAST PERF-3rd-s	tomaban	speak-IMP-3rd-s	activity	mismatch
volvía a llegar	return-IMP-1st-s to arrive-INF	volví a llegar	return-PRET-1st-s to arrive- INF	achievement	mismatch

Worksheet #3

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
estuve viendo	be-PRET-1st-s see-GER	estaba viendo	be-IMP-1st-s see-GER	activity	mismatch
pude	be able-PRET-1st-s	podía	be able-IMP-1st-s	state	mismatch
fuimos a ir	go-PRET-1st-pl to go-INF	íbamos a ir	go-IMP-1st-pl to go-INF	achievement	match
tuve	have-PRET-1st-s	tenía	have-IMP-1st-s	state	mismatch
decidía	decide-IMP-1st-s	decidí	decide-PRET-1st-s	achievement	mismatch
expresaba	express-IMP-3rd-s	expresó	express-PRET-3rd-s	achievement	mismatch
era	be-IMP-3rd-s	fue	be-PRET-3rd-s	state	match

KATE: Worksheet #1

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
tuve	have-PRET-1st-s	tenía	have-IMP-1st-s	activity	mismatch
necesitó estudiar	need-PRET-3rd-s study-INF	necesitaba estudiar	need-IMP-3rd-s study-INF	activity	mismatch
fueron a hacer	go-PRET-3rd-pl to do-INF	iban a hacer	go-IMP-3rd-pl to do-INF	activity	mismatch
hubo	be-PRET-3rd-s	había	be-IMP-3rd-s	state	mismatch
sabía	know-IMP-1st-s	supe	know-PRET-1st-s	achievement	mismatch
intentó controlarse	try-PRET-3rd-s control-INF	intentaba controlarse	try-PRET-3rd-s control-INF	achievement	match
fue a ir	go-PRET-3rd-s to go-INF	iba a ir	go-IMP-3rd-s to go-INF	state	mismatch
fue	go-PRET-3rd-s	era	go-IMP-3rd-s	state	mismatch
quise salir	want-PRET-1st-s leave-INF	quería salir	want-IMP-1st-s leave-INF	activity	mismatch
me divertí	reflex-1st have fun-PRET-1st	me divertía	reflex-1st have funIMP-1st	state	mismatch
fue	be-PRET-3rd-s	era	be-PRET-3rd-s	state	mismatch

Worksheet #2

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
me puso	reflex-1st-become-PRET- 3rd-s	me ponía	reflex-1st-become-IMP-3rd-s	achievement	match
pasaba	pass-IMP-3rd-s	pasó	pass-PRET-3rd-s	achievement	
me sentía	feel reflex-1st-IMP-1st-s	me sentí	feel reflex-1st-PRET-1st-s	state	mismatch
habló	speak-PRET-3rd-s	habalaba	speak-IMP-3rd-s	activity	match
teníamos que	have-IMP-1st-pl to sit reflex-	tuvimos que	have-PRET-1st-pl to sit reflex-	achievement	mismatch
sentarnos	INF	sentarnos	INF		mismatch

Worksheet #3

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
Estuvo viendo	be-PRET-1st-s see-GER	estaba viendo	be-IMP-1st-s see-GER	activity	Mismatch
tenía que acercarme	have-IMP-1st-s to approach-INF reflex-1st	tuve que acercarme	have-PRET-1st-s to approach-INF reflex-1st	achievement	mismatch
se tranquilizaba	calm down-reflex-3rd-IMP-3rd-s	se tranquilizó	calm down-reflex-3rd-PRET-3rd-s	achievement	mismatch
echaba la culpa	throw-IMP-3rd-s the blame	echo la culpa	throw-PRET-3rd-s the blame	achievement	mismatch
era	be-IMP-3rd-s	fue	be-PRET-3rd-s	state	mismatch

MITCH: Worksheet #1

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
tuvo que estudiar	have-PRET-3rd-s to study-INF	tenía que estudiar	have-IMP-3rd-s to study-INF	activity	mismatch
necesitó estudiar	need-PRET-3rd-s study-INF	necesitaba estudiar	need-IMP-3rd-s study-INF	activity	mismatch
fueron a hacer	go-PRET-3rd-pl to do-INF	iban a hacer	go-IMP-3rd-pl to do-INF	activity	mismatch
hubo	be-PRET-3rd-s	había	be-IMP-3rd-s	state	mismatch
bailó	dance-PRET-3rd-s	bailaba	dance-IMP-3rd-s	activity	mismatch
tomó	drink-PRET-3rd-s	tomaba	drink-IMP-3rd-s	activity	mismatch
se divertó	reflex-3rd have fun-PRET-3rd-s	se divertía	reflex-3rd have fun-IMP-3rd-s	activity	mismatch
se sientó	reflex-3rd feel-PRET-3rd-s	se sentía	reflex-3rd feel-IMP-3rd-s	state	mismatch
intentó controlarse	try-PRET-3rd-s control-INF	intentaba controlarse	try-IMP-3rd-s control-INF	achievement	match
no response		iba a ir	go-IMP-3rd-s to go-INF	achievement	*no response*
quiso salir	want-PRET-3rd-s leave-INF	quería salir	want-IMP-3rd-s leave-INF	state	mismatch
lloró	cry-PRET-3rd-s	lloraba	cry-IMP-3rd-s	activity	mismatch
fue	be-PRET-3rd-s	era	be-IMP-3rd-s	state	mismatch
hizo	do-PRET-3rd-s	hacía	do-IMP-3rd-s	state	mismatch
me diverté	reflex-1st have fun-PRET-1st-s	me divertía	reflex-1st have fun-IMP-1st-s	activity	mismatch
fue	be-PRET-3rd-s	era	be-IMP-3rd-s	state	mismatch

Worksheet #2

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
estaba	be-IMP-1st-s	Estuve	be-PRET-1st-s	state	mismatch
fue a ser	be-PRET-3rd-s to be-INF	iba a ser	be-IMP-3rd-s to be-INF	state	mismatch
fui a tener que tomar	go-PRET-1st-s to have-INF to take-INF	iba a tener que tomar	go-IMP-1st-s to have-INF to take-INF	achievement	match
me sentía	reflex-1st feel-IMP-1st-s	me sentí	reflex-1st feel-PRET-1st-s	state	match
fue	be-PRET-3rd-s	eran	be-IMP-3rd-pl	state	mismatch
habló	speak-PRET-3rd-s	hablaba	speak-IMP-3rd-s	activity	mismatch
tomaron	take-PRET-3rd-pl	tomaba	take-IMP-3rd-pl	activity	mismatch
volvía	return-IMP-1st-s	volví	return-PRET-1st-s	achievement	mismatch

Worksheet #3

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
fue	be-PRET-3rd-s	Era	be-IMP-3rd-s	state	mismatch

TIM: Worksheet #1

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
hicimos	do-PRET-1st-pl	hacíamos	do-IMP-1st-pl	activity	mismatch
tuve que estudiar	have-PRET-1st-s to study-INF	tenía que estudiar	have-IMP-1st-s to study-INF	activity	mismatch
necesitó cuidar	need-PRET-3rd-s take careINF	necesitaba cuidar	need-IMP-3rd-s take care-INF	activity	match
se llamó	reflex-3rd call-PRET-3rd-s	se llamaba	reflex-3rd call-IMP-3rd-s	state	mismatch
intentó	try-PRET-3rd-s	intentaba	try-IMP-3rd-s	achievement	match
quiso salir	want-PRET-3rd-s leave-INF	quería salir	want-IMP-3rd-s leave-INF	state	mismatch

Worksheet #2

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
dormí	sleep-PRET-1st-s	dormía	sleep-IMP-1st-s	activity	mismatch
comí	eat-PRET-1st-s	comía	eat-IMP-1st-s	activity	mismatch
tuve que tomar	have-PRET-1st-s to take-INF	tenía que tomar	have-IMP-1st-s to take-INF	achievement	match
fue a ser	be-PRET-3rd-s to be-INF	iba a ser	be-IMP-3rd-s to be-INF	state	mismatch
me sentía	reflex-1st feel-IMP-1st-s	me sentí	reflex-1st feel-PRET-1st-s	state	match
había hablado	speak-PAST PERF-3rd-s	hablaba	speak-IMP-3rd-s	activity	mismatch
habían tomado	take-PAST PERF-3rd-pl	tomaba	take-IMP-3rd-pl	activity	mismatch

Worksheet #3

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
pude	be able-PRET-1st-s	podía	be able-IMP-1st-s	state	mismatch
fue	be-PRET-3rd-s	era	be-IMP-3rd-s	state	mismatch

BETH: Worksheet #1

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
salimos	Leave-PRET-1st-pl	salíamos	leave-IMP-1st-pl	activity	mismatch
hizimos	do-PRET-1st-pl	hacíamos	do-IMP-1st-pl	activity	mismatch
tuve que estudiar	have-PRET-1st-s to study-INF	tenía que estudiar	have-IMP-1st-s to study-INF	activity	mismatch
necesitó cuidar	need-PRET-3rd-s take care-INF	necesitaba cuidar	need-IMP-3rd-s take care-INF	activity	mismatch
sabía	know-IMP-1st-s	supe	know-PRET-1st-s	achievement	match
decía	say-IMP-3rd-s	dijo	say-PRET-3rd-s	achievement	mismatch
fuera a ir	be-IMP SUBJ-3rd-s to go-INF	iba a ir	be-IMP IND-3rd-s to go-INF	achievement	*morpheme*
quisiera	want-IMP SUBJ-3rd-s	quería	want-IMP IND-3rd-s	state	
dejaba de llorar	stop-IMP-3rd-s cry-INF	dejó de llorar	stop-PRET-3rd-s cry-INF	achievement	*morpheme*
llegaban	arrive-IMP-3rd-pl	llegaron	arrive-PRET-3rd-pl	achievement	mismatch
explicaba	explain-IMP-1st-s	expliqué	explain-PRET-1st-s	achievement	mismatch
					mismatch

Worksheet #2

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
fue a ser	be-PRET-3rd-s to be-INF	iba a ser	be-IMP-3rd-s to be-INF	state	mismatch
estuve	be-PRET-1st-s	estaba	be-IMP-1st-s	state	mismatch
podía	be able-IMP-1st-s	pude	be able-PRET-1st-s	achievement	mismatch
me sentí	reflex-1st feel-IMP-1st-s	me sentía	reflex-1st feel-IMP-1st-s	state	mismatch
hubo	be-PRET-3rd-s	había	be-IMP-3rd-s	state	mismatch

Worksheet #3: ***No errors***

APPENDIX 7: Individual Summaries of Error Production – Aspect from the Writing Samples

ALICE: Sample #1

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
estaba	be-IMP-3rd-s	estuvo	be-PRET-3rd-s	state	mismatch
lleva	wear-PRES-3rd-s	llevaba	wear-IMP-3rd-s	activity	*incorrect tense*
hubo	be-PRET-3rd-s	había	be-IMP-3rd-s	state	mismatch

Sample #2

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
estuve	be-PRET-1st-s	estaba	be-IMP-1st-s	state	mismatch
estuve	be-PRET-1st-s	estaba	be-IMP-1st-s	state	mismatch
necesitaba	need-IMP-3rd-s	necesitó	need-PRET-3rd-s	state	match

Sample #3

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
empezaba	begin-IMP-3rd-s	empezó	Begin-PRET-3rd-s	achievement	mismatch
era	be-IMP-3rd-s	fue	be-PRET-3rd-s	state	match
estuvo	be-PRET-3rd-s	estaba	be-IMP-3rd-s	state	mismatch
hubo	be-PRET-3rd-s	había	be-IMP-3rd-s	state	mismatch
estuvo	be-PRET-3rd-s	estaba	be-IMP-3rd-s	state	mismatch

Sample #4

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
se llama	reflex-3rd call-PRES-3rd-s	se llamaba	reflex-3rdcall-IMP3rd-s	state	*Incorrect tense*
tuvo	have-PRET-3rd-s	estaba	have-IMP-3rd-s	state	mismatch
hubo	be-PRET-3rd-s	había	be-IMP-3rd-s	state	mismatch
tuvo que calmarse	have-PRET-3rd-s to calm down-INF reflex	tenía que calmarse	have-IMP-3rd-s to calm down-INF reflex	achievement	match

KATE: Sample #1

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
pensaba	think-IMP-1st-s	pensé	think-PRET-1st-s	state	*Incorrect tense*
pensaba	think-IMP-1st-s	pensé	think-PRET-1st-s	state	mismatch
molestaba	bother-IMP-3rd-s	molestó	bother-PRET-3rd-s	activity	mismatch
tenía	have-IMP-1st-s	tuve	have-PRET-1st-s	state	match
gustaba	like-IMP-3rd-pl	gustaron	like-PRET-3rd-pl	state	mismatch

Sample #2

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
era	be-IMP-3rd-s	fue	be-PRET-3rd-s	state	match
pelaban	peel-IMP-3rd-pl	pelaron	peel-PRET-3rd-pl	activity	match
cortaban	cut-IMP-3rd-pl	cortaron	cut-PRET-3rd-pl	activity	match
tenía que pelar	have-IMP-1st-s to peel	tuve que pelar	have-PRET-1st-s to peel	accomplishment	mismatch
hacíamos	do-IMP-1st-pl	hicimos	do-PRET-1st-pl	accomplishment	mismatch
decidía	decide-IMP-1st-s	decidí	decide-PRET-1st-s	achievement	mismatch
teníamos	have-IMP-1st-pl	tuvimos	have-PRET-1st-pl	state	match
estabamos	be-IMP-1st-pl	estuvimos	be-PRET-1st-pl	state	match
podía	be able-IMP-1st-s	pude	be able-PRET-1st-s	state	match

Sample #3

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
pensaba	think-IMP-1st-s	pensé	think-PRET-1st-s	state	match

Sample #4

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
pasaba	spend-IMP-3rd-s	pasó	spend-PRET-3rd-s	achievement	mismatch
tenía que escribir	have-IMP-1st-s to write-INF	tuve que escribir	have-PRET-1st-s to write-INF	activity	match

MITCH: Sample #1

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
daba	give-IMP-3rd-s	dio	give-PRET-3rd-s	achievement	mismatch

Sample #2

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
dije	say-PRET-1st-s	decía	say-IMP-1st-s	achievement	mismatch

NO SAMPLE #3

Sample #4

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
intentabamos	try-IMP-1st-pl	intentamos	try-PRET-1st-pl	achievement	mismatch
tenía	have-IMP-1st-s	tuve	have-PRET-1st-s	state	match

TIM: Sample #1

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
estaba planeando	be-IMP-1st-s plan-GER	estuve planeando	be-PRET-1st-s plan-GER	activity	match
estaban pensando	be-IMP-1st-s think-GER	estuvieron pensando	be-PRET-1st-s plan-GER	state	match

Sample #2

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
estaba	be-IMP-3rd-s	estuvo	be-PRET-3rd-s	state	match
empezábamos	begin-IMP-1st-pl	empezamos	begin-PRET-1st-pl	achievement	mismatch
estaban diciendo	be-IMP-3rd-pl say-GER	estuvieron diciendo	be-PRET-3rd-pl say-GER	achievement	mismatch

Sample #3

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
estaba	be-IMP-3rd-s	estuvo	be-PRET-3rd-s	state	mismatch

Sample #4

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
tuvimos que cruzar	have-PRET-1st-s to cross-INF	teníamos que cruzar	have-IMP-1st-s to cross-INF	accomplishment	match

BETH: Sample #1

Elicited Form	Gloss	Correct Form	Gloss	Inherent Lexical Aspect	Grammatical/ Lexical Match Up
tuvo que ir	have-PRET-3rd-s to go-INF	tenía que ir	have-IMP-3rd-s to go-INF	achievement	match
podia andar	be able-IMP-1st-s walk-INF	pude andar	be able-PRET-1st-s walk-INF	state	match
tuvimos que mandar	have-PRET-1st-pl to send-INF	teníamos que mandar	have-IMP-1st-pl to send-INF	achievement	match
tuvo	have-PRET-3rd-s	tenía	have-IMP-3rd-s	state	mismatch
tuvimos	have-PRET-1st-pl	teníamos	have-IMP-1st-pl	state	mismatch
estuvimos	be-PRET-1st-pl	estábamos	be-IMP-1st-pl	state	mismatch
podía	be able-IMP-1st-s	pude	be able-PRET-1st-s	state	match

NO SAMPLE #2

SAMPLE #3: ***No errors***

NO SAMPLE #4

VITA

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