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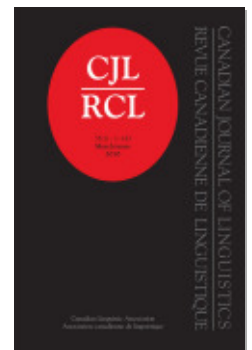
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## **The L2 acquisition of aspectual properties in Spanish**

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# *The L2 acquisition of aspectual properties in Spanish*

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## 1. INTRODUCTION

Research has demonstrated that the acquisition of tense and aspect are challenging for L2 learners (see Coppiters 1987, Bardovig-Harlig 2000, Montrul and Slabakova 2002). English-speaking L2 learners of Spanish often have difficulties with preterite versus imperfect aspectual distinctions, overextending the preterite to contexts where the imperfect is preferred, as in (1):<sup>1</sup>

- (1) #José normalmente jugó en el parque cuando niño. (habitual context)  
José normally played-PRET in the park when child  
'As a child, Joseph usually played in the park.'

In (1), the event described is a habitual situation in the past; the imperfect (*jugaba*) is normally preferred in such contexts.

While research on aspect is extensive, it is still unclear why L2 learners experience difficulties. Previous accounts propose roles for maturational constraints linked to age at onset of acquisition (see Coppiters 1987) or lack of instantiation of [ $\pm$ perfective] morphosyntactic features (see Montrul and Slabakova 2002). In contrast with these proposals arguing for some form of impairment, I propose that transfer of the semantic properties of tense morphemes constitutes a more plausible explanation for the variability often found among L2 speakers (see Pérez-Leroux, Cuza, Majzlanova, and Sánchez-Naranjo 2008). Variability refers to the inconsistent or variable use/non-use of a particular structure (see Robertson and Sorace 1999, Robertson 2000, Sorace 2005). I follow Weinreich's (1953:1) definition of transfer as "those instances of deviation from the norms of either language which occur in the speech of bilinguals as a result of their familiarity with more than one language."

Specifically, I compare adult L2 acquisition data to post-puberty L1 attrition data. L1 attrition is the grammatical restructuring of a previously acquired L1 system due to intense contact with a dominant L2 (see Seliger 1996, Köpke and Schmid

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<sup>1</sup>Abbreviations used in this article:

IMP	imperfect	PAST.PROG	past progressive	QUES	question
INF	infinitive	PRET	preterite	3	third person

2004, Sorace 2004). This restructuring is reflected in the speaker's acceptance of structures usually considered odd by monolingual native speakers of their first language. I compare L2 acquisition to L1 attrition because, contrary to what is argued for L2 acquisition difficulties, adult L1 attrition cannot be explained in terms of maturational development or a lack of instantiation of [ $\pm$ perfective] features. These bilinguals acquired the L2 after puberty, with a fully developed L1 grammar and complete instantiation of native morphosyntactic features. Therefore, to the extent that advanced L2 learners and adult immigrants demonstrate comparable patterns of difficulties, it cannot be argued that the difficulties L2 learners have stem from these causes of impairment. Instead, I argue that transfer from the other language (L1 in L2 acquisition and L2 in L1 attrition) offers a better explanation.

It is not necessarily true that similar patterns of variability between L2 learners and long-term immigrants have the same sources. However, transfer is a factor that affects both L2 learners (see Schwartz and Sprouse 1996, Slabakova 2000) and long-term immigrants undergoing L1 attrition (see Pavlenko 2000, Gürel 2004). Moreover, it has been recently proposed as the main source of variability at the syntax–semantic interface (Sorace 2000; Tsimpli, Sorace, Heycock, and Filiaci 2004).

The study is structured as follows. Section 2 addresses previous treatments of tense and aspect, including de Swart's (1998) approach to aspectual variation. Section 3 presents an overview of research on the L2 acquisition and L1 attrition of aspectual interpretations and the role of transfer. The study is presented in Section 4, followed by the results in Section 5. Section 6 contains a discussion of these results and Section 7 presents the conclusions.

## 2. TENSE AND ASPECT

In Section 2.1, I discuss traditional descriptions of aspectual differences. Then, I discuss de Swart's (1998) model, which proposes that aspectual variation is determined by the semantic properties that tense morphemes can select. It is this latter model that will inform the hypotheses to be tested in Section 4.

### 2.1 Traditional descriptions

The most common aspectual distinction is that between perfective and imperfective viewpoints (grammatical aspect). Perfective aspect indicates a temporally restricted and completed event or state (e.g., *John played the guitar*). Imperfective aspect, by contrast, can have either a habitual or a continuous interpretation (e.g., *John played guitar as a child*) (see Comrie 1976).

These aspectual distinctions are realized differently in English and Spanish. In Spanish, perfective and imperfective aspectual properties are realized morphologically by the preterite (2a) and imperfect tenses (2b) respectively. In English, both aspectual interpretations are normally realized by one morphological form (*-ed*), as shown by the translations of the Spanish examples in (2):

- (2) a. *María tocó el piano.* (perfective aspect)  
 María played-PRET the piano  
 'Maria played the piano.'

- b. *María tocaba el piano cuando niña.* (imperfective aspect)  
 María played-IMP the piano when child  
 ‘María played the piano as a child.’

In (2a) and (2b), aspectual distinctions in Spanish are marked by the suffixes *-ó*, *-ba*. In contrast, in English there are no morphological distinctions, with both aspectual notions realized with the simple past tense (*played*). In English, an imperfective interpretation may also be expressed periphrastically via *used to* (e.g., *Mary used to play the piano as a child*) or *would* (*When she was a child, Mary’s family would go to the lake every summer*). Moreover, in order to express an ongoing event in the past occurring simultaneously with a second event, the past progressive must be used in English, as in (3a). A non-progressive form is not felicitous under this reading, as shown in (3b):

- (3) a. *Rosa was talking to Mary when John arrived.* (ongoing/progressive)  
 b. #*Rosa talked to Mary when John arrived.* (perfective)

In Spanish, in contrast, imperfective morphemes have a wider variety of interpretations. In addition to allowing a habitual meaning, they also allow an ongoing interpretation, as in (4):

- (4) *Rosa hablaba con María cuando llegó Juan.* (ongoing/imperfective)  
 Rosa talked-IMP with Mary when arrived John  
 ‘Rosa was talking to Mary when John arrived.’

In (4), the imperfective indicates that Rosa was talking to Mary at the moment when John arrived. Thus, ongoing and habitual aspectual interpretations in Spanish are not obligatorily distinguished morphologically, as in English. The Spanish imperfective can have either a habitual or an ongoing reading in the past. A past ongoing aspectual reading can also be conveyed using the progressive tense in Spanish, as in English:

- (5) *Rosa estaba estudiando cuando llegué.* (ongoing/ progressive)  
 Rosa was studying-PAST.PROG when I arrived  
 ‘Rosa was studying when I arrived.’

Table 1 summarizes the main aspectual differences between English and Spanish in the past tense.

In this study I focus only on the completed and habitual aspectual interpretations of the perfective and imperfect tense morphemes respectively.

Aspect can also be seen from a lexical perspective (lexical aspect or *Aktionsart*) (see Vendler 1967, Smith 1997). The lexical meanings of verbs and their semantic entailments introduce the basic aspectual type of the eventuality. Vendler (1967) categorizes verbs into four predicate types: statives (e.g., *I love ice cream*), activities (e.g., *Paul runs through the park every morning*), accomplishments (*We built a house for our parents*), and achievements (*Lucy reached her goals*). Each of these verb types can be characterized in terms of telicity, which refers to the extent to which an action is clearly defined in terms of its beginning and end. Stative and activity predicates are non-telic in that they do not have an inherent endpoint. In contrast, accomplishments

**Table 1:** Summary of aspectual differences in English and Spanish in the past

Aspectual Interpretations		Spanish	English
Perfective	[completed]	María tocó el piano.	Mary played the piano.
		María tocaba el piano de chica.	Mary played the piano as a child.
Imperfective	[habitual]	∅	Mary <i>used to play the piano</i> as a child.
		∅	Mary <i>would play</i> the piano as a child.
	[ongoing]	María tocaba el piano cuando llegué.	∅
		María <i>estaba tocando el piano</i> cuando llegué.	Mary <i>was playing the piano</i> when I arrived.

and achievements are telic in that they present a beginning and an end; they have an inherent endpoint.

Grammatical aspect and lexical aspect are not, however, sufficient to account for instances where aspectual interpretations are not determined by tense morphology or the lexical meaning of the verb but rather by other elements within the verb phrase (VP), as in (6a) and (6b):

- (6) a. Juan dibujó *un círculo*. (accomplishment)  
 John drew-PRET a circle  
 ‘John drew a circle.’
- b. Juan dibujó *por horas*. (activity)  
 John drew-PRET hours  
 ‘John drew for hours.’

In (6a), the verb is in the preterite; the predicate depicts an accomplishment in Vendler’s terms. However, in (6b), the predicate consisting of the verb with the time adverbial *por horas* ‘for hours’ is an activity. Verkuyl (1972) calls this process compositional aspect. Aspectual interpretations, then, are not to be found in the verb morphology or inherent lexical aspect but rather at the level of the Verb Phrase (VP) (see Schmitt 1996).

## 2.2 A selectional approach to aspectual variation

In line with Verkuyl’s compositional perspective, de Swart (1998) assumes that aspect is both compositional and layered. It is compositional, she argues, because it is derived from the interaction between the semantic/lexical properties that tense morphemes can select (e.g., stative predicates versus eventive predicates), and the specific shifts, if any, introduced by aspectual operators such as adverbials (e.g., *for many years*). It is layered because several layers of the sentence contribute to aspectual composition.

The interaction between the lexical properties that tense morphemes select (also called eventualities) and aspectual operators occurs at the upper level of the predicate-argument structure. This interaction outputs a specific aspectual class at the lower layer of the predicate-argument structure and is defined as eventuality description. The syntactic structure can be represented as in (7):

- (7) [<sub>UPPER LAYER</sub> Tense [Aspect\* [<sub>LOWER LAYER</sub> eventuality description]]]

In this syntactic structure, the lower layer consists of the eventuality description, which can be of two types. The first is eventive predicates, such as achievements (*The boat sank*) or accomplishments (*Mary baked a cake*). Achievement and accomplishment predicates involve an inherent endpoint and are classified by de Swart as heterogeneous; they are telic predicates (see Smith 1997). The second type includes states (*I know Mary*) and processes (*John runs every day*). State and process eventualities involve no inherent endpoint and are classified as homogeneous; they are atelic predicates. The upper layer is made up of aspectual (Aspect\*) and tense (Tense) operators. The Kleene star (\*) indicates that there can be one grammatical aspectual operator, more than one or none. Aspectual operators (e.g., adverbs, direct objects, prepositional phrases) are eventuality modifiers since they can shift the eventuality description if there is a clash between tense operators (e.g., the morphemes *-ó* or *-ba* in Spanish) and the respective aspectual properties they select. In Romance languages like Spanish, the simple past and the imperfect are aspectually sensitive past-tense operators in that they select specific aspectual notions. That is, there are specific types of eventualities they can select: the simple past selects events (achievements and accomplishments), while the imperfect selects states and processes. If there is a mismatch and the past tense combines with a state or process or the imperfect combines with an event, an aspectual operator (type shifter) must be introduced. It imposes certain viewpoints on the type of eventuality description at the lower level to satisfy the selectional requirements of the tense morpheme. To illustrate, consider the sentences in (8) and (9):

- (8) Mario corrió *en el parque*. (homogeneous process, activity)  
 Mario ran-PRET in the park  
 'Mario ran in the park.'
- (9) Mario corrió *una milla*. (heterogeneous event, accomplishment)  
 Mario ran-PRET a mile  
 'Mario ran a mile.'

In (8), the eventuality class is that of a homogeneous process with no inherent endpoint. However, in (9), the tense head selects a direct object (*una milla*), which changes the homogeneous eventuality into a heterogeneous one, triggering a transition in the eventuality aspectual class at the lower layer. Other aspectual operators like duration adverbials can also shift the aspectual interpretation of the clause, as in (10) and (11):

- (10) Juan escribió una novela. (heterogeneous event)  
 John wrote-PRET a novel  
 'John wrote a novel.'

- (11) *Por muchos años*, Juan escribió una novela. (homogeneous process)  
 For many years, John wrote-PRET a novel  
 'For many years, John wrote a novel.'

In (10), the aspectual class is heterogeneous, as the sentence depicts an accomplishment, an event with an inherent endpoint. However, in (11), there is a clash between the preterite tense of the verb and the continuous/habitual interpretation given by the duration adverbial *por muchos años*. In such cases, the interpretation given by the adverbial prevails and the predicate is coerced into a homogeneous process with no inherent endpoint. This reinterpretation process is what semanticists call aspectual coercion. De Swart defines aspectual coercion as “an implicit, contextually governed process of reinterpretation which comes into play whenever there is conflict between aspectual nature and eventuality description” (1998:349). Contrary to Spanish, English tense heads have no restriction on the type of eventuality description they may select. The tense head (simple past) is neutral; both homogeneous and non-homogeneous events are possible. Aspectual coercion is also available in English, as in *Mary danced very well* versus *Mary danced very well for decades*.

In summary, aspectual selection in Spanish is restricted to either a homogeneous (imperfective) or a heterogeneous (perfective) eventuality marked through overt morphology. Tense morphemes in Spanish are aspectually sensitive to the type of eventualities they select. However, in cases where there is a clash between predicate type (tense morpheme) and eventuality class, an aspectual operator has to be inserted, triggering a transition in the eventuality aspectual class of the lower layer. In English, tense morphemes have no aspectual sensitivity and may select all eventuality types. The tense head (preterite) is neutral as it can select either a homogeneous or a heterogeneous event. Aspectual coercion is also available.

De Swart's model allows for a comprehensive explanation of cross-linguistic differences in tense and aspect and it has been recently adopted in a number of studies examining the L2 acquisition of this grammatical domain (e.g., Pérez-Leroux et al. 2008). Other studies, by contrast, have suggested maturational causes (e.g., Coppieters 1987) or the activation of morphosyntactic features (e.g., Montrul and Slabakova 2002, 2003). Such studies are the focus of the next section.

### 3. L2 ACQUISITION AND L1 ATTRITION OF TENSE AND ASPECT

In this section I discuss three approaches to the L2 acquisition of aspect: (1) maturational development, (2) morphosyntactic development, and (3) lexical development of the semantic properties of tense heads. I argue that impairment explanations in (1) and (2) have yet to offer a complete account of aspectual variation. I propose instead that differences between native speakers and L2 learners are determined by the transfer of the semantic properties of tense morphemes. This view is in line with recent research that indicates that syntax–semantic interfaces, such as areas of aspect dependent on pragmatics/discourse, are vulnerable to transfer, leading to L2 variability and L1 attrition (see Sorace 2000, Tsimpli et al. 2004).

### 3.1 L2 acquisition research and related theoretical considerations

Some researchers in L2 acquisition have suggested that learners' difficulties stem from maturational constraints related to age at onset of acquisition. Maturational proposals are linked to the existence of a critical period of learning extending from birth to around puberty; to ensure complete success, language must be learned within this period. Afterwards, it is assumed that the task of learning a language will not be completely successful due to brain maturation (see Lenneberg 1967, Coppieters 1987, Johnson and Newport 1989).

Coppieters (1987) examines aspectual properties in the endstate grammars of 21 L1 speakers of English with near-native competence in French. The author tested, among other things, the aspectual distinctions existing between the *imparfait* and the *passé composé* in French, as in (12a) and (12b). In (12a) the meaning of the verb *savoir* in the *passé composé* is 'manage' or 'be able to'. In (12b) its meaning in the *imparfait* is 'know':

- (12) a. Est-ce que tu *as su* conduire dans la neige? (*passé composé*)  
 QUES you have known drive-INF in the snow  
 'Did you manage to drive in the snow?'  
 b. Est-ce que tu *savais* conduire dans la neige? (*imparfait*)  
 QUES you knew-IMP drive-INF in the snow  
 'Did you know how to drive in the snow?'

Coppieters' results demonstrate that L2 learners in his study behaved significantly differently from native speakers in the acquisition of semantic properties, such as *imparfait-passé composé* distinctions. Non-native speakers displayed considerable variation and deviated from native speakers in 42% of cases. Coppieters concludes that the acquisition of these cognitive/functional properties remains non-native in the interlanguage of French learners, and that they are subject to maturational constraints.

Other researchers do not support the existence of a critical period for L2 acquisition (see Birdsong 1992, Bialystok and Hakuta 1994, White and Genesee 1996). Research shows that there is not a distinguishable sharp drop in learning after puberty and that native-like attainment in L2 is possible, even after the so-called critical period has passed. For example, Birdsong (1992) criticizes Coppieters' (1987) study on methodological grounds. He argues that the task employed (grammaticality judgement) is highly metalinguistic and does not reflect unconscious knowledge of the language. Birdsong partly replicates Coppieters' study and finds no significant differences between native speakers and L2 learners.

White and Genesee (1996) also investigate the role of age in the L2 acquisition of French by English speakers and find no maturational effects in the final attainment of French L2 grammar. Specifically, they examine grammatical properties constrained by Universal Grammar, such as the Subjacency Principle. These properties are not explicitly taught and are therefore a good testing ground to examine the validity of maturational constraints. Results show no significant differences between near-native and native speakers. There is also no evidence of age effects or



maturational decline in any of the groups. The authors conclude that post-puberty native-like attainment of an L2 is possible.

Research in L2 acquisition has also suggested that the acquisition of aspectual differences is determined by the lack of instantiation of [ $\pm$ perfective] morphosyntactic features (see Montrul 2002, Montrul and Slabakova 2002). This morphological development approach follows Giorgi and Pianesi's (1997) proposal that aspectual differences reside in the way languages represent their aspectual functional features. Within this view, English verbs are bare forms without inflectional features (e.g., *walk*) and can be distinguished from nouns only when overt morphology is added (e.g., *walks*). Thus, a null perfective morpheme is added which inherently associates the verb with the functional feature value [+perfective]. This entails temporal closure with eventive predicates and explains why the present tense disallows an ongoing reading (*\*John walks right now*). In Romance languages like Spanish, on the contrary, verbs are always inflected and cannot be confused with nouns. Thus, there is no need to add a null perfective morpheme and an ongoing reading is allowed.

Following Giorgi and Pianesi's approach, Montrul and Slabakova (2002) argue that in Spanish the Aspectual Phrase (AspP) is associated with both [+perfective] and [−perfective] features. Spanish has overt preterite and imperfect tense/aspect morphology, which is checked against the [ $\pm$ perfective] functional features. The preterite marks perfective aspect [+perfective] (bounded or telic events) while the imperfect marks imperfective aspect [−perfective] (unbounded or atelic events). English, in contrast, lacks the [−perfective] feature normally associated with the simple past. English and Spanish are then different in the way they instantiate their aspectual functional features in the AspP (see, for example, Giorgi and Pianesi 1997, Montrul 2002, Montrul and Slabakova 2003). The task of the L2 learner is to acquire the functional aspectual features not instantiated in her/his L1 and associate these sets of features with tense/aspect morphemes. Within this approach, the acquisition of morphosyntactic features serves as a trigger for the acquisition of semantics.

Montrul and Slabakova (2002) examine the L2 acquisition of Spanish aspectual interpretations by near-native speakers of English. The authors found near-native performance in nearly all conditions, except for their non-target use of the imperfect with achievement predicates, as in (13):

- (13) #Juan alcanzaba la cima. (imperfect)  
 Juan reached-IMP the top  
 'Juan reached the top.'

The authors argue that these difficulties stem from the clash between the unbounded aspectual nature of the imperfect, which normally encodes habitual or generic situations, and the telic lexical nature of achievement verbs such as *alcanzar* 'reach'. Achievement predicates are telic in that they have an inherent endpoint. Normally, this clash between lexical class and aspectual tense can be resolved through aspectual coercion, as in (14):

- (14) Juan alcanzaba la cima *cuando una ráfaga de viento se lo impidió*.  
 John reached-IMP the top when a gust of wind self him prevented  
 'John was reaching the top when a gust of wind prevented him from doing so.'

In (14), the adverbial phrase *cuando una ráfaga de viento se lo impidió* shifts the emphasis to the process preceding the change of state, turning the achievement predicate into accomplishment. Montrul and Slabakova (2002) argue that even though coercion is also available in English, L2 learners (unlike monolinguals) do not have the pragmatic ability to coerce. The authors conclude that coercion may be peripheral to Universal Grammar competence, more dependent on input and repeated exposure, and therefore more difficult to acquire.

A morphosyntactic approach does not provide a complete explanation for L2 learners' difficulties with tense and aspect. From an empirical perspective, Montrul and Slabakova's (2002) own results suggest that L2 learners do acquire complete knowledge of overt morphosyntax but not all semantic representations are fully acquired. But in that case it is not clear why, if morphology is fully acquired and morphology is the trigger necessary to activate semantics, aspectual interpretations may still be incompletely attained. From a theoretical perspective, if divergent semantic representations arise from differing morphological development, then languages with similar morphosyntactic features should have similar semantic representations. However, research shows that this is not the case and that verb morphology is not dependent on semantics (see Schmitt 2001). Schmitt demonstrates that languages with similar morphosyntactic paradigms such as Spanish and Portuguese still diverge in their aspectual representations. Portuguese and Spanish are similar in that the verb stem always has bound morphology attached to it and thus cannot be confused with noun forms. However, contrary to Spanish, the Portuguese present tense disallows an ongoing reading with eventive predicates, as in (15a); it behaves instead like English, allowing only a generic reading (15b) (see Oliveira and Lopes 1995, Schmitt 2001). For an ongoing event, the present progressive must be used.<sup>2</sup> Spanish, in contrast, allows both generic and ongoing interpretations (15c):

- (15) a. *Portuguese*:  
 O Pedro come fruta (# neste momento). ([+generic] [–ongoing])
- b. *English*:  
 Pedro eats fruit (# right now). ([+generic] [–ongoing])
- c. *Spanish*:  
 Pedro come fruta (en este momento). ([+generic] [+ongoing])

The Portuguese example in (15a) and the English example in (15b) can be interpreted only as 'Pedro is a fruit eater'. Both constructions disallow an ongoing reading with eventive predicates, regardless of the morphological properties of the verb inflection. In the Spanish example in (15c), the reading is either that 'Pedro is a fruit eater' or that 'Pedro is eating fruit right now'. Thus, Schmitt maintains that morphological development cannot possibly account for aspectual differences among languages since languages with almost identical morphosyntax have different aspectual values.

An alternative approach argues that L2 aspectual difficulties do not depend on featural activation but instead are explained in terms of lexical development and the

<sup>2</sup>Here I adopt Schmitt's (2001:431) description of English and Portuguese present tense.

acquisition of the aspectual properties that tense morphemes can select (see Pérez-Leroux et al. 2008). That is, the task of the L2 learner involves the acquisition of the corresponding semantic features selected by tense morphemes. Some semantic restrictions may be acquired while others may remain indeterminate.

Pérez-Leroux et al. examine the acquisition of preterite/imperfect semantic aspectual representations. Specifically, the authors investigate habitual and iterative (repetitive) aspectual shifts triggered implicitly by aspectual coercion or explicitly through an iteration adverb, as in (16) and (17) respectively:

- (16) Los niños se cambiaron de asiento *por horas*. (iterative coercion, preterite)  
 the children self changed of seat for hours  
 ‘The children changed seats for hours.’
- (17) Los niños se cambiaron de asiento *repetidamente*. (iterative adverb preterite)  
 the children self changed of seat repeatedly  
 ‘The children changed seats repeatedly.’

Participants in the study showed different degrees of variability and significant problems with iterative contexts. They were able to acquire the selectional properties of the preterite (heterogeneous eventualities) but failed to attain target representations of the imperfect (homogeneous eventualities). The authors argue that the acquisition of the two aspectual representations in Spanish occurs independently of each other. The target representation one morpheme (e.g., preterite) selects may be acquired while the target representation of another morpheme (e.g., imperfect) may remain indeterminate. This variability is attributed to L1 transfer from English, which seems to facilitate the interpretation of the selectional properties of the preterite while obscuring those of the imperfect. A transfer-sensitivity account for L2 variability and L1 attrition has been the topic of recent research, which I address in the following section.

### 3.2 L2 acquisition and L1 attrition research: The role of transfer

Recent research has proposed that transfer (L2 or L1) is selective, as it influences areas where the syntax interfaces with semantics and pragmatics, such as tense and aspect, leading to L2 variability and L1 attrition (see Sorace 2000, Montrul 2002, Tsimpli et al. 2004). In L2 acquisition research, transfer refers to the incorporation and use of elements and structures from the native language, or another previously acquired language, during acquisition (see Weinreich 1953, Gass 1996). In L1 attrition research, transfer refers to the effects of the dominant L2 on the recessive L1 (see Pavlenko 2000, Köpke 2004).

For decades, researchers have examined why certain properties of the L1 grammar are more transferable than others and why some never transfer at all (see Zobl 1980, White 1988). Some research in L2 acquisition and L1 attrition, couched within a generative perspective, argues that transfer is selective, affecting only the syntax–semantic interface, rather than “narrow” syntax (syntactic domains) (see Sorace 2000, Tsimpli et al. 2004). This approach follows generative linguistic theory in differentiating morphosyntactic properties, namely features, in terms of their interpretability

(Chomsky 1995). There are two classes: interpretable features, those with semantic representations such as aspect; and uninterpretable features, purely syntactic features such as agreement. Transfer will affect only interpretable features, checked at the syntax–semantic interface level, causing L2 grammatical optionality and L1 attrition. In contrast, purely syntactic properties will remain intact.

Sorace (2000) examines the effects of transfer on the L2 acquisition and L1 attrition of the distribution of overt subject pronouns and postverbal subjects among Italian near-native speakers of English. In *pro*-drop languages (also known as null subject languages) like Italian or Spanish, preverbal subjects can be omitted, as in (18), in contrast with *pro*-drop languages like English, where the subject is obligatory, as in (19).

(18) *Italian*:  
 (*pro*) E' partito.  
 is.3SG gone  
 'He/she left.'

(19) *English*:  
 \*(He/she) left.

Unlike English, null subjects in Italian are possible due to the phonological realization of agreement features on the verb ([–interpretable] features). Postverbal subjects are also possible in Italian due to the null subject value of the parameter, as in (20b):

(20) *Italian*:  
 a. Che cosa è successo?  
 'What happened?'  
 b. E' arrivato Gianni.  
 is.3SG arrived Gianni  
 'Gianni arrived.'

Sorace argues that, since the production of null subjects in Italian is under the specification of uninterpretable features, it will not be vulnerable to transfer. However, the distribution of null subjects will be vulnerable to transfer from English, since they are under the specification of [+interpretable] features.

Sorace found that Italian near-native speakers of English overextended Italian overt pronouns in contexts where monolingual speakers would use the null option (as in (18)). Moreover, both L2 speakers and Italian speakers undergoing attrition optionally produced preverbal subjects in contexts where a monolingual speaker would use the postverbal option, as in (20b). However, the Italian native grammar remained a *pro*-drop grammar subject and the English native grammar remained non-*pro*-drop. Only the distribution of overt pronominal subjects (a syntax–discourse interface condition) was affected. Sorace also found that Italian near-native speakers of English and English near-native speakers of Italian displayed similar patterns of variability (overgeneralization of Italian overt pronouns). Sorace concludes that interpretable features, active in the syntax–discourse/pragmatics interface, are optionally

unspecified in L2 attainment and L1 attrition. If transfer affects the syntax–semantics interface, one would then expect tense and aspect to be vulnerable to L2 variability and L1 attrition among bilinguals.

Montrul (2002) examines the incomplete acquisition and L1 loss of aspectual properties among Spanish-English bilinguals. She investigates specifically whether the attrition of morphology also entails the loss of semantic features and if there are systematic patterns of incompleteness in the production and interpretation of aspectual distinctions. Participants were divided into three groups determined by the age of onset of bilingualism:

- (i) simultaneous bilinguals born in the U.S. (age of exposure to English 0–3 years old);
- (ii) early child L2 learners (age of exposure to English 4–7 years); and
- (iii) late child L2 learners (age of exposure to English 8–12 years).

There was also a monolingual group (control group).

Results from a written morphology recognition task (production task) and two interpretation tasks (sentence conjunction task and truth value task) investigating the knowledge of preterite versus imperfect distinctions showed significant differences between groups, with age of onset of acquisition as the main predictive factor in the degree of divergence. For instance, simultaneous bilingual speakers showed a lower level of target performance with achievement predicates in the imperfect, and with stative predicates in the imperfect and the preterite. Early child L2 learners only differed from monolinguals on stative verbs in the preterite. There were no group differences between late child L2 learners and monolinguals but they did differ significantly at the individual level. Montrul concludes that both morpho-phonological forms and semantic features are affected by incomplete acquisition in the case of simultaneous and early child L2 learners, and L1 attrition in the case of late child L2 learners. Participants confused morphological forms and neutralized the semantic differences between preterite and imperfect. The author argues that, unlike monolinguals, L2 learners did not have the ability to coerce, judging from their difficulties with achievement predicates in the imperfect.

To summarize, researchers studying the acquisition of tense and aspect have argued that L2 learners' difficulties stem from impairment, such as maturational constraints or the non-instantiation of functional features. An alternative perspective argues that learners' difficulties stem from failure to completely acquire the semantic properties of tense morphemes due to transfer from L1 semantic values. This latter view is in line with recent proposals which argue that grammatical domains belonging to the syntax–semantics interface are vulnerable to transfer, leading to L2 variability and L1 attrition (see Sorace 2000).

#### **4. THE STUDY**

This section presents the goals of the study, the research questions and the methodology.

#### 4.1 Goals and research questions

Despite extensive L2 acquisition research on tense and aspect, it is still not clear why this domain is challenging for L2 learners. Previous proposals have tried to relate learners' difficulties to the existence of a critical period of learning or to the development/activation of aspectual functional features. However, as seen above, these approaches have yet to provide a complete explanation of aspectual variation. On one hand, research shows that L2 attainment negatively correlates with age at onset of L2 acquisition and that successful native-like attainment after puberty is possible. On the other hand, an approach that views morphological development as the trigger for aspectual acquisition is not complete either, since it does not explain why languages with almost identical morphosyntax present different aspectual properties. Moreover, research shows that L2 learners who appear to have acquired morphological aspectual forms fail to acquire certain specific semantic properties.

In contrast to these maturational and morphosyntactic-development proposals, I argue that differences between native speakers and L2 learners and between non-attributed and attributed native speakers are best explained via L1 transfer of the semantic properties of tense heads. To develop this argument, I adopt de Swart's (1998) selectional approach to aspectual variation. This approach is advantageous as it does not link aspectual difficulties with pre-determined morphological paradigms or maturational constraints. It thus allows for a transfer-based explanation of the difficulties often found among instructed L2 learners and long-term immigrants who have come to the L2 context with a fully developed L1 system. *Long-term immigrants* refers here to native speakers of Spanish who have resided in the U.S. or Canada for a long period of time (10 or more years), and who came to the L2 context with a fully developed L1 system

I first examine the L2 acquisition and L1 attrition of preterite versus imperfect distinctions in Spanish, and then seek to determine whether L2 learners and long-term immigrants undergoing attrition demonstrate comparable levels of variability. If maturational and featural approaches to aspect are correct, L2 learners and adult immigrants should not have comparable patterns of deficits in the aspectual domain, since the immigrants acquired the L2 after puberty. However, following de Swart's selectional approach, where the selectional patterns of one language are able to influence the selectional patterns of the other language, L1 → L2 influence may be comparable to L2 → L1 influence. I do not predict that they will be equal, since both L2 acquisition and L1 attrition are dynamic processes, but I expect to find comparable trends. If the two bilingual groups show comparable trends, then learners' difficulties cannot be unquestionably related to some form of impairment. I seek to answer the following research questions:

- (i) To what extent do English-speaking L2 learners of Spanish acquire the selectional patterns of preterite and imperfect forms? Where attainment is not complete, can it be described in terms of transfer from English?
- (ii) To what extent does L1 attrition affect the understanding of aspectual distinctions in the past tense among long-term immigrants?

- (iii) Do L2 learners and long-term immigrants behave comparably in the aspectual domain?

#### 4.2 Structures under investigation and hypotheses

As discussed earlier, Spanish and English have different aspectual properties. In Spanish, past-tense morphemes (preterite and imperfect) are aspectually sensitive to specific types of eventuality descriptions: the preterite selects heterogeneous eventualities (e.g., *María estudió<sub>PRET</sub> música ayer*, ‘Mary studied<sub>PRET</sub> music yesterday’) and the imperfect selects homogeneous eventualities (*María estudiaba<sub>IMP</sub> música de niña*, ‘Mary studied<sub>IMP</sub> music as a child’). By contrast, the simple past (preterite) in English is aspectually neutral, lacking selectional restrictions; both homogeneous and heterogeneous eventualities are possible (*Mary studied music yesterday/as a child*). If, as argued, transfer affects mostly grammatical areas in which syntax interfaces with semantics among bilingual speakers (see Tsimplici et al. 2004, Sorace 2005), the prediction is that L2 learners and long-term immigrants will have difficulties with aspectual selection in Spanish due to semantic transfer from English L1 in the case of L2 learners and English L2 in the case of immigrants.

A set of test sentences was designed to examine preterite versus imperfect aspectual contrasts on eventive and stative eventualities in characterizing situations (homogeneous) and episodic situations (non-homogeneous). Characterizing situations are habitual or continuous states or events (see Carlson and Pelletier 1995). In Spanish, they are normally selected by the imperfect, as in (21b) and (23b). The preterite in these situations is considered odd, as in (21a) and (23a), but it is not completely ungrammatical. In English, characterizing situations are selected by the preterite, as seen in the translations of (21b) and (23b). Episodic situations, on the other hand, denote a specific, completed event. In both Spanish and English (examples (22b) and (24b) and their translations), they are normally selected by the preterite. The use of the imperfect to denote an episodic situation in Spanish (examples (22a) and (24a)) is odd:

(21) *Eventive eventualities in a characterizing (homogeneous) situation:*

- |   |           |
|---|-----------|
| a. De chico, Francisquito normalmente jugó béisbol.   | ([#PRET]) |
| b. De chico, Francisquito normalmente jugaba béisbol. | ([√IMP])  |
| ‘As a child, Francisquito normally played baseball.’  |           |

(22) *Eventive eventualities in an episodic (non-homogeneous) situation:*

- |  |           |
|--|-----------|
| a. Por muchos años, Juan pintaba un retrato de su madre. | ([#IMP])  |
| b. Por muchos años, Juan pintó un retrato de su madre.   | ([√PRET]) |
| ‘For many years, John painted a portrait of his mother.’ |           |

(23) *Stative eventualities in a characterizing situation:*

- |                                      |           |
|--------------------------------------|-----------|
| a. Juan pareció molesto esta mañana. | ([#PRET]) |
| b. Juan parecía molesto esta mañana. | ([√IMP])  |
| ‘John seemed upset this morning.’    |           |

(24) *Stative predicate with an episodic situation:*

- a. A María le encantaba la cena de anoche. ([#IMP])  
 b. A María le encantó la cena de anoche. ([√PRET])  
 ‘Mary enjoyed dinner last night.’

Accordingly, within a selectional approach to aspectual variation, English and Spanish share the same range of eventuality types, homogeneous and non-homogeneous. However, these eventuality types are associated with different morphological expressions in each language. In English, they are both realized by the simple past. In Spanish, they are selected by the imperfect and the preterite tense/aspect morphemes respectively. The Spanish grammar (L1 or L2) is thus in competition with the English grammar (L1 or L2) due to its wider range of semantic selection.

Given the importance of transfer proposed here, in learnability and attrition scenarios, this competition between divergent aspectual properties in the two grammars may cause confusion among bilingual speakers in the correct activation of target aspectual values. That is, bilinguals may activate incorrect selectional patterns due to the interrelation between aspectual properties in the L1 and the L2. Specifically, the neutral value of the English simple past ( $\pm$ homogeneous) may interfere with the acquisition of more restrictive properties in Spanish L2 and may also affect the correct interpretation of aspectual distinctions among Spanish immigrants undergoing L1 attrition. I specifically expect:

- (i) Overextension of the preterite to eventive and stative eventualities with a characterizing meaning, as in #*María bailó de niña* ‘Mary danced as a child’, or *Juan pareció molesto esta mañana* ‘John seemed upset this morning’. As discussed earlier, characterizing situations in Spanish are normally selected by the imperfect.
- (ii) Overextension of the imperfect to episodic contexts with stative eventualities, normally selected by the preterite, as in #*María disfrutaba muchísimo la cena con Juan* ‘Mary enjoyed the dinner with John very much’. Although stative eventualities with an episodic meaning are selected by the preterite in both Spanish and English, I expect aspectual ambiguity and incorrect semantic selection due to conflicting selectional options in the L1 and L2.
- (iii) Overextension of the imperfect to episodic contexts with eventive eventualities (coercion cases), as in #*Por tres días, el jefe llegaba tarde* ‘For three days, the boss arrived late’. This is normally selected by the preterite. The adverbial phrase *por tres días* shifts the aspectual class to a homogeneous process with no inherent endpoint. However, the preterite must be used, since the continuous interpretation is already given by the adverbial. Bilingual speakers may face difficulties with this reinterpretation process due to its semantic complexity.
- (iv) If aspectual difficulties stem from transfer of the semantic properties of the other language, I expect L2 learners and immigrants to show comparable patterns of difficulties.



### 4.3 Participants

Forty-two ( $n = 42$ ) Spanish-English bilinguals residing in Canada and the U.S. participated in the study, including long-term immigrants ( $n = 14$ ), advanced L2 learners ( $n = 14$ ) and Spanish native speaker controls ( $n = 14$ ). All participants filled out a language history questionnaire to determine the age of onset of L2 acquisition, length of residence in the L2 context, languages used at work and home, etc. (See Appendix A for a summary of participants' linguistic profile.)

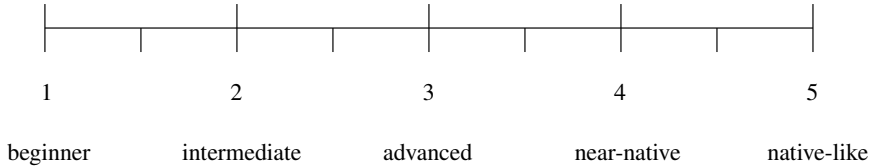
The immigrant group was composed of 14 Spanish Caribbean speakers (10 Cubans and 4 Dominicans) who had resided in the U.S. for more than 20 years. The selection criteria included: (i) dialect region (Caribbean Spanish), (ii) age of L2 acquisition (14 years old or older), and (iii) length of residence in the L2 context (10 years or longer). Although there are no studies to my knowledge that attest to dialectal differences in the development of aspectual forms, I consider it important to control for dialectal differences to avoid any possible confounding factor. Age at onset of L2 acquisition was controlled for in order to have adult L2 learners of English who had immigrated to the L2 context with a fully-developed L1 grammar. An effort was made to recruit participants who had immigrated during early adolescence and had received extensive schooling in English. Ten or more years of residence in the L2 context was taken as a selection criterion since this length of stay is considered a reasonable period after which attrition normally emerges (see Gürel 2004).

Since most participants had acquired the L2 during early adulthood, received extensive formal schooling in English, and lived in the L2 context for more than 20 years, advanced proficiency in English was assumed. In the interview process, participants also demonstrated their linguistic competence in English and indicated they felt comfortable in both English and Spanish. In addition, all of the participants worked in environments where good proficiency in English was a requirement; the group included teachers, health/social services employees, lawyers, etc. Most participants resided in Union City, New Jersey, a predominantly Latino community (82.32%). This region was specifically targeted for participant selection because of its high percentage of Caribbean-Spanish speakers and its homogeneity in terms of age of immigration and length of residence in the U.S. Union City is located in Hudson County in northern New Jersey, directly across the Hudson River from Manhattan. This region offers a favourable context for L1 attrition because, although Spanish is widely spoken, good proficiency in English is also an important requirement for instrumental purposes (e.g., finding and keeping employment) and for full integration in the community. Moreover, although community members speak Spanish on a daily basis, the L1 input they are exposed to is in most cases also "attrited" or influenced by English (see Sharwood-Smith and Van Buren 1991).

The L2 learner group consisted of 14 native speakers of English enrolled in advanced Spanish courses at the University of Toronto. Three judges independently assessed their proficiency in Spanish on the basis of their oral narratives of the story "Little Red Riding Hood" in the past tense and the story "Frog goes to dinner" in the present tense (see White and Genesee 1996, Bongaerts 1999). A standardized proficiency test was not done due to overall task time. The assessment was done by

intermixing narratives from long-time immigrants and control participants ( $n = 5$ ) with those of the L2 learners. Judges assessed the syntax, vocabulary, pronunciation, fluency, and overall grammar of each speaker based on the following scale:

(25)



The mean for overall grammar among L2 learners was 3.46 (see Appendix B for complete instructions and methods). The control group included 14 Caribbean Spanish speakers with no more than three years of residence in an English-speaking environment.

#### 4.4 Tasks

A truth value judgement task (TVJT) (see Crain and Thornton 1998) and an acceptability judgement task (AJT) (see Dekydtspotter, Lauren, Sprouse, and Anderson 1997) were used. Both interpretation tasks were designed to examine the participants' comprehension of preterite versus imperfect distinctions in Spanish. Each task comprised a total of 40 tokens counterbalanced across participants.

The goal of the TVJT was to examine whether L2 learners and long-term immigrants had knowledge of the aspectual interpretations of past-tense morphemes in Spanish. Specifically, it evaluated whether participants would judge the preterite or the imperfect forms as "true" within semantic contexts that require the other form. This task is a common psycholinguistic method of assessing participants' judgement (interpretation) of a first or second language (see Bruhn de Garavito 1995). The task tests the range of possible meanings that speakers can and cannot assign. An advantage of this elicitation tool is that it is very simple.

The task was conducted aurally using the *Praat* computer program (Boersma 2001). The program was configured so that there was a yellow box in two corners of the computer screen. The boxes in the left and right corners were labelled *Yes* and *No* respectively. After listening to each test sentence preceded by its contextualizing preamble, participants were instructed to click *Yes* if they believed the sentence to be true, *No* if false. A true (*Yes*) response meant that the sentence was consistent with the story and grammatically fine. A false (*No*) answer meant that the sentence was not consistent with the story or that it was odd. Once a selection was made, the next audio file played automatically. The order in which the audio files were played was randomized. There were no time constraints, but in the briefing preceding the test, participants were encouraged to respond based on their first impression. All sentences were counterbalanced across participants. An example test segment is given in (26).

- (26) This morning María attended a lecture by Prof. Ramírez. She said the lecture was great and that she really loved it.

- |  |     |    |
|--|-----|----|
| a. A María le <i>encantó</i> la conferencia del profesor Ramírez.<br>'Mary loved-RET this morning's lecture.'    | Yes | No |
| b. #A María le <i>encantaba</i> la conferencia del profesor Ramírez.<br>'Mary loved-IMP this morning's lecture.' | Yes | No |

In (26), the preamble supports an episodic situation in the past where the preterite should be used. Therefore, a positive response in (26a) demonstrates that the sentence was true to the context. A negative response in (26b) demonstrates that the sentence was not true to the preamble.<sup>3</sup>

To complement the results from the TVJT and its possible limitations, an AJT was also conducted. The goal of this task was to examine whether L2 learners and long-term immigrants would accept the use of the preterite or the imperfect in contexts where the opposite form was preferred. This task complements the limitations of TVJT in that it does not require a categorical response. Instead, participants are required to judge the acceptability of a construction on a five-point scale ranging from "odd" to "completely fine" (see Sorace 1996, White and Genesee 1996).

The test was a paper-and-pencil task. It comprised 40 ( $n = 40$ ) test sentences in Spanish preceded by a preamble in English.<sup>4</sup> As in the TVJT, the sentences were counterbalanced across participants and the preambles were given in English in order to avoid any priming effect. Participants were instructed to read the context, read the test sentence and indicate the level of acceptability of the sentence in that context. If participants found the test sentence "odd" or "slightly odd" they were asked to underline what they thought was not right with the sentence in (27).

- (27) As a child, Francisquito always liked to play sports with his friends after school. He liked to play baseball and was very good at football.
- |  |                   |                  |                       |                           |  |  |
|--|-------------------|------------------|-----------------------|---------------------------|--|--|
| a. De niño, Francisquito siempre <i>jugaba</i> con sus amigos.<br>'As a child, Francisquito always <i>played</i> -IMP with his friends.' |                   |                  |                       |                           |  |  |
| -2 (odd)   | -1 (slightly odd) | 0 (I don't know) | 1 (more or less fine) | <u>2 (perfectly fine)</u> |  |  |
| b. De niño, Francisquito siempre <i>jugó</i> con sus amigos.<br>'As a child, Francisquito always <i>played</i> -RET with his friends.'   |                   |                  |                       |                           |  |  |
| <u>-2 (odd)</u>  | -1 (slightly odd) | 0 (I don't know) | 1 (more or less fine) | 2 (perfectly fine)        |  |  |

In (27) the preamble supports a characterizing situation in the past and therefore the imperfect tense should be used, as in (27a). The use of the preterite, on the other hand, is considered odd in (27b) since the preamble does not support an episodic interpretation.

## 5. RESULTS

In this section, I present the participants' results on the various tasks.

<sup>3</sup>In this task a binary response could be a limitation as participants are forced to make a categorical decision.

<sup>4</sup>An anonymous reviewer pointed out, correctly, that the use of a preamble in English could heighten transfer/convergence among the bilinguals.

### 5.1 Truth value judgement task

I first examined to what extent L2 learners and long-term immigrants demonstrate knowledge of preterite and imperfect aspectual representations in Spanish. In particular, I looked at whether there was overextension of the preterite to characterizing situations with eventive and stative predicates, which require the imperfect, and whether there was overextension of the imperfect to episodic contexts with stative and eventive predicates, which require the preterite. Second, I looked at whether the two bilingual groups show comparable levels of difficulty, or significant differences.

Results of the average score per ungrammatical condition were submitted to an analysis of variance (ANOVA) with repeated measures, with eventuality type (stative, eventive) and situation type (episodic, characterizing) as within-subject factors and group (immigrants, L2 learners, control) as the between-subject factor. Overall results show significant main effects for group ( $F_{2(39)} = 7.691, p < .002$ ). As predicted, immigrants and L2 learners showed overextension of the preterite to characterizing situations with eventive and stative predicates, normally selected by the imperfect, confirming hypothesis (i). Hypotheses (ii) and (iii) were also confirmed. Both experimental groups showed overextension of the imperfect to episodic contexts with both stative and eventive predicates, where the preterite is preferred.

To identify where the differences lie between groups, a Scheffe post hoc test was performed measuring differences pairwise.<sup>5</sup> Post hoc results show significant differences between the control group and the two experimental groups (immigrant and control,  $p < .004$ ; L2 learners and control,  $p < .013$ ). There were no significant differences between immigrants and L2 learners ( $p = .880$ ). Thus, hypothesis (iv) was also confirmed. L2 learners and immigrants showed comparable variability. Figure 1 displays these results.

Results of the average score per grammatical condition were submitted to an ANOVA with repeated measures, with eventuality type and situation type as the within-subject factor and group as the between-subject factor. Results reveal no significant main effects for group ( $F_{2(39)} = .841, p = .439$ ). All participants showed high levels of performance with grammatical sentences. Figure 2 displays these results.

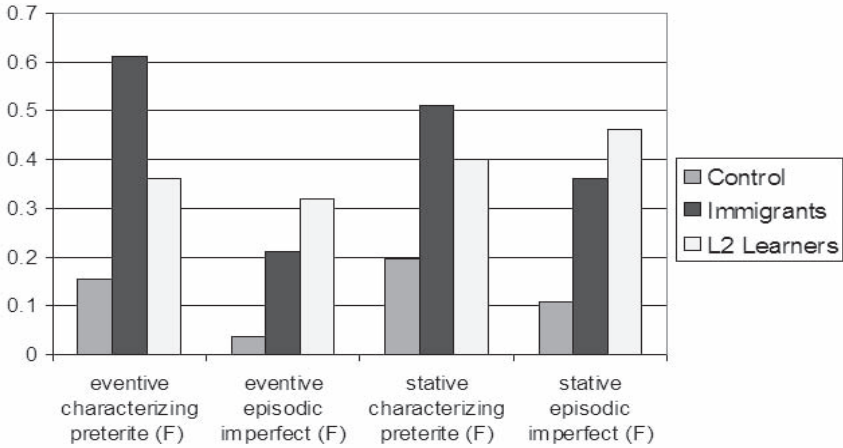
### 5.2 Acceptability judgement task

As in the previous task, this test examined the extent to which L2 learners and long-term immigrants show variability in the aspectual domain — that is, whether there were overextensions of the preterite and imperfect forms to characterizing and episodic contexts respectively. I also examined whether L2 learners and immigrants behave significantly differently from each other.

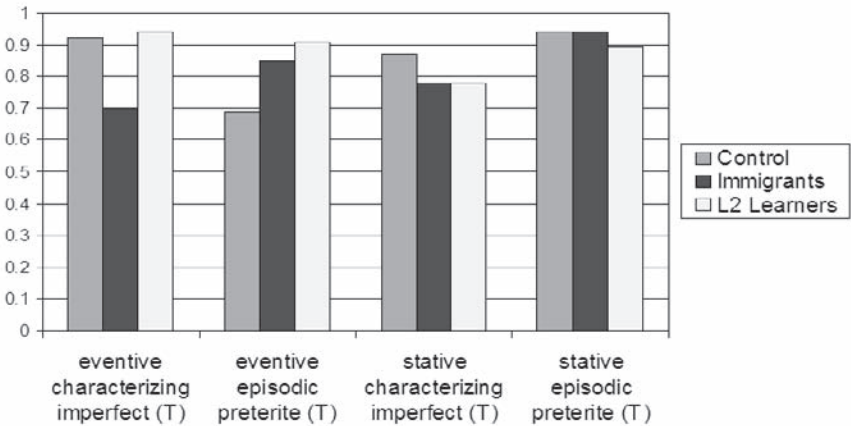
Results of the average score per ungrammatical condition were submitted to an ANOVA analysis with repeated measures, with eventuality type (eventive and stative) and situation type (characterizing and episodic) as the within-subject factors and group (immigrants, L2 learners, and control) as the between-subject factor. Results reveal highly significant differences for group ( $F_{2(39)} = 23.047, p < .000$ ). As

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<sup>5</sup>A Scheffe post hoc test is usually employed for evaluating pairwise comparisons and is a very robust procedure with respect to heterogeneity of variance (see Keppel 1991).



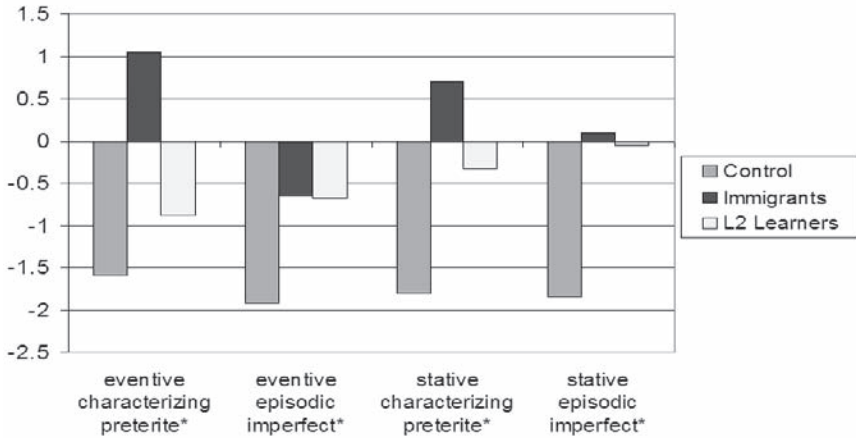
**Figure 1:** Truth value judgement task: Mean scores for preterite and imperfect per group per predicate and situation type for false conditions



**Figure 2:** Truth value judgement task: Mean scores for preterite and imperfect per group per predicate and situation type for true conditions

in the truth value task, immigrants showed overextension of the preterite to characterizing contexts with stative and eventive predicates. However, L2 learners only overextended the preterite to characterizing contexts with stative predicates. They rejected the preterite with eventive predicates. Thus, hypothesis (i) was only partially confirmed. Hypotheses (ii) and (iii) were also confirmed. Both groups showed overextension of the imperfect to episodic contexts with eventive and stative predicates, where the preterite is preferred. Figure 3 displays these overall results.

A Scheffe post hoc test measuring differences pairwise shows highly significant differences between the control group and the immigrant group ( $p < .000$ ) and

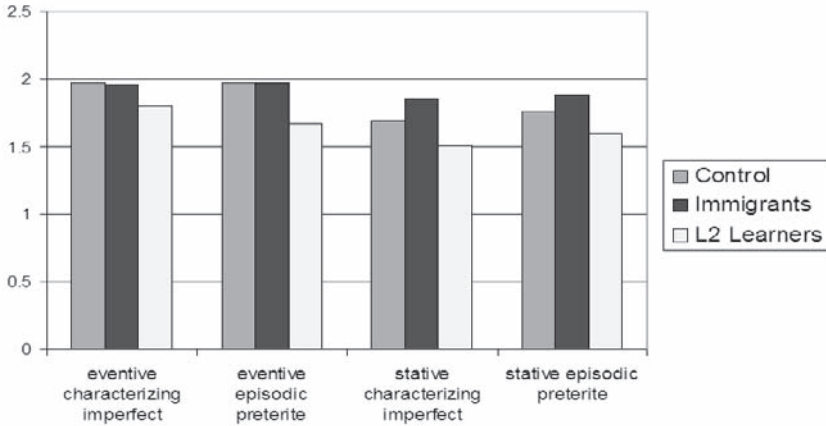


**Figure 3:** Acceptability judgement task: Mean scores of judgement for preterite and imperfect per group per predicate and situation type for ungrammatical conditions

between the control group and L2 learners ( $p < .001$ ). L2 learners and immigrants did not show significant differences ( $p = .054$ ). However, since these results came close to significance, independent-sample t-tests were conducted to further evaluate the obtained means between both groups per grammatical condition. The t-test results showed significant differences between the two groups in evaluating characterizing situations with both eventive ( $p < .000$ ) and stative predicates ( $p < .004$ ). In this situation type, L2 learners outperformed immigrants significantly. There were no significant differences between the two groups in evaluating episodic situations with eventive ( $p = .183$ ) and stative predicates ( $p = .325$ ). Therefore, hypothesis (iv) was partially confirmed.

Results of the average score per grammatical condition were submitted to an ANOVA with repeated measures, with eventuality type and situation type as the within-subject factor and group as the between-subject factor. Results revealed a significant effect for group ( $F_{2(39)} = 2079.30, p < .019$ ). These results are represented in Figure 4.

In order to identify where the differences lay between groups, a Scheffe post hoc test measuring differences pairwise was done. It showed no significant differences between the control group and the immigrant group ( $p = .799$ ) or between control and L2 learners ( $p = .110$ ). However, there were significant differences between immigrants and L2 learners ( $p < .026$ ). Nevertheless, L2 learners did not reject grammatical sentences but failed to demonstrate ceiling performance as immigrants did. Immigrants obtained an estimated marginal mean of 1.9 while L2 learners had a marginal mean of 1.6.



**Figure 4:** Acceptability judgement task: Mean scores of judgement for preterite and imperfect per group per predicate and situation type for grammatical conditions

## 6. DISCUSSION

Results from both the acceptability judgement task and the truth value judgement task showed significant differences between the control group and the two experimental groups in some items, but not others. As concerns hypothesis (i), in the truth value task immigrants and L2 learners showed overextension of the preterite to characterizing situations with stative and eventive predicates, as expected. The less restrictive semantic properties of English appear to undermine the acquisition of new aspectual properties in Spanish L2 (i.e., homogeneous eventualities selected by the imperfect) and destabilize previously acquired L1 properties, leading to a reduction in the range of aspectual selection among long-term immigrants.

However, in the acceptability judgement task, L2 learners showed overextension of the preterite to characterizing situations only with stative predicates. They did not significantly overextend the preterite to characterizing situations with an eventive predicate, as in *#María normalmente bailó cuando niña* ‘Mary usually danced as a child’. In these contexts, L2 learners rejected the use of the preterite, unlike immigrants who accepted it for the most part. Thus, hypothesis (i) was partially confirmed. The enforcement of the imperfect with frequency adverbs like *normalmente* in eventive characterizing situations may stem from the fact that adverbs like these indicate discourse information at the sentential level. This discourse information may have highlighted the habitual aspectual meaning of the phrase, helping L2 learners to activate the right tense and aspect morphology (see Bardovi-Harlig 1992). Moreover, the use of the imperfect to indicate habitual situations in the past together with a temporal adverb is highly enforced in classroom instruction (see Jarvis, Lebrede, and Mena-Ayllón 2004) and this may have also caused a metalinguistic effect for L2 learners.

Hypotheses (ii) and (iii) were confirmed by both tasks. Immigrants and L2 learners showed an overextension of the imperfect to episodic situations with stative and

eventive predicates (coercion cases). Even though episodic situations are selected by the preterite in both Spanish and English, L2 learners and immigrants showed ambiguity in their aspectual selection probably due to conflicting selectional representations in both languages, causing overall confusion and incorrect semantic selection.

Coercion cases were particularly challenging, as has been shown in previous studies (see Montrul and Slabakova 2002, Pérez-Leroux et al. 2008). Both L2 learners and native speakers undergoing attrition showed difficulty with coercion contexts, such as *Por muchos años, Juan pintaba un retrato de su madre* 'John spent many years painting a portrait of his mother'. In such cases the preterite is preferred. The use of the imperfect in these cases is not preferred, since the time adverbial *por muchos años* already marks the habitual or continuous aspectual meaning. The adverbial shifts the heterogeneous class of the predicate *pintar un retrato* 'paint a portrait' (an accomplishment) into a homogeneous process with no inherent endpoint. As discussed earlier, this implicit reinterpretation process is done in order to resolve the clash between the lexical aspect selected by the tense morpheme (heterogeneous eventuality) and the resulting type of eventuality description of the VP imposed by the adverbial (homogeneous eventuality). Overall, participants showed difficulty in recognizing the aspectual shift provided by this aspectual transition. These results may stem from the participants' uncertainty with preterite versus imperfect selectional properties and the complexity of such contexts.

As predicted by hypothesis (iv), immigrants and L2 learners showed comparable patterns of variability in the truth value task. However, in the acceptability judgement task, L2 learners and immigrants showed comparable results only on episodic situations with eventive and stative predicates. In characterizing situations, L2 learners outperformed immigrants significantly. These results may stem from the fact that the use of the imperfect is highly enforced in instructional settings to describe habitual or repeated events in the past (see Jarvis et al. 2004). This metalinguistic effect could have been advantageous for L2 learners in the interpretation of the imperfect in characterizing contexts. Unlike L2 learners, immigrants did not benefit from instruction. Another important factor in these results is the role of input. The use of the imperfect to refer to habitual situations is widely used in daily speech, which may have helped L2 learners to acquire this aspectual value. However, although the immigrants are in contact with both English and Spanish, and 79% of them indicated they feel comfortable with both languages, the L1 input they receive may be in most cases also "attrited" or influenced by English (see Smith and Van Buren 1991). Thus, there is a possibility that these native speakers have developed an enclave variety, explaining why L2 learners outperform them in some contexts.

## 7. CONCLUSIONS

This study examined and compared the L2 acquisition and L1 attrition of aspectual properties in Spanish by English-speaking L2 learners and long-term immigrants. It was argued that L2 difficulties with tense and aspect should not be linked directly to some form of impairment, namely maturational constraints or instantiation



of morphosyntactic features. Rather, transfer of the semantic properties of tense morphemes may better explain L2 learners' difficulties with tense and aspect.

This argument was developed by examining and comparing the interpretation and use of past-tense aspectual properties in Spanish among L2 learners and long-term Spanish immigrants. The study hypothesized that, to the extent that the L2 learners share similar patterns of performance with the immigrants, who acquired the L2 as adults, L2 learners' difficulties should not be linked directly to impairment causes. This is because, in contrast to what has been proposed for L2 acquisition difficulties, adult L1 attrition cannot be explained in terms of maturational constraints or lack of instantiation of morphosyntactic features.

Results from both interpretation tasks showed significant patterns of difficulty in the aspectual domain. L2 learners and immigrants behaved significantly differently from controls, overextending the preterite to some contexts where the imperfect is preferred in characterizing situations, and the imperfect to contexts where the preterite is preferred in episodic situations. As predicted by acquisitional approaches based on de Swart's (1998) proposal, L2 learners appear to activate incorrect aspectual patterns due to divergent selectional features in the L1 and L2.

Moreover, the L2 learners and the adult immigrants showed comparable patterns of difficulty, except in the overextension of the imperfect in characterizing contexts in the acceptability judgement task. In these contexts, L2 learners outperformed immigrants. It was claimed that the advantage of L2 learners with the imperfect in characterizing contexts may stem from instructional treatments and other factors such as input. I have argued that L2 learners' difficulties in the acquisition of aspect should not be linked unquestionably to impairment. Rather, transfer of the selectional patterns of tense morphemes and the interaction of two linguistic systems in the bilingual mind appear to better explain the variability found among L2 speakers.

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**APPENDIX A:  
SUMMARY OF PARTICIPANTS' LINGUISTIC PROFILES**

	Immigrants			L2 Learners			Control		
Native language	Spanish			English			Spanish		
Mean age of onset of L2 acquisition	16;3			18;7			33;2		
Mean length of residence in Canada/U.S.	30 years			—			1.7		
Parents' native language:									
Spanish	100%			0%			100%		
English	0%			93%			0%		
Other	0%			7%			0%		
Language(s) spoken as a child:									
Spanish	100%			0%			100%		
English	0%			93%			0%		
Other	0%			7%			0%		
Language(s) of instruction:	ENG	SPA	BOTH	ENG	SPA	BOTH	ENG	SPA	BOTH
Primary School	0%	100%	0%	100%	0%	0%	0%	100%	0%
High School	50%	36%	14%	100%	0%	0%	0%	100%	0%
College/University	86%	0%	14%	0%	0%	100%	0%	86%	14%
Language used at:	ENG	SPA	BOTH	ENG	SPA	BOTH	ENG	SPA	BOTH
Work	36%	0%	64%	86%	0%	14%	71%	7%	22%
Home	7%	29%	64%	100%	0%	0%	7%	79%	14%
Language which feels more comfortable:									
Spanish	21%			0%			100%		
English	0%			93%			0%		
Other	79%			7%			0%		

**APPENDIX B:  
RATERS' INSTRUCTIONS FOR L2 LEARNERS' PROFICIENCY ASSESSMENT IN SPANISH**

In this task, you will hear pairs of narratives produced by L2 learners of Spanish. Please note that you do not have to listen to and rank all the narratives at once. Please take breaks as you need them. The narratives are the classic story *Little Red Riding Hood* (La Capercucita Roja) and the frog story *Frog goes to dinner*. Please listen carefully to both narratives and then, and only then, rate the speaker's ability in Spanish based on the following four aspects:

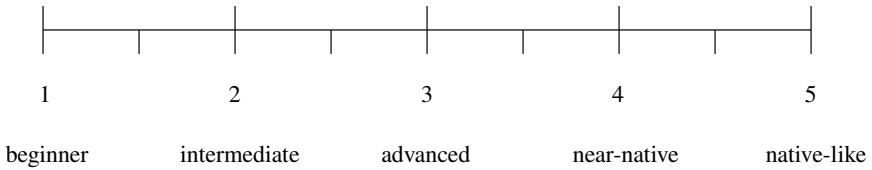
- (1) Overall syntax: appropriate use of nouns, prepositions, subject-verb agreement, sentence complexity, and overall word order.
- (2) Vocabulary: use of idioms, less frequent words, varied.
- (3) Pronunciation and fluency: overall impression of intonation, rhythm, stress as well as pronunciation of vowels and consonants.
- (4) Overall grammar of the speaker disregarding (3).

Use the scale provided below each criterion to rank the speaker. As we are interested in knowing your first impression, please do not listen to the tapes more than once and do not go back and change your score once you have heard all the recordings. Remember NOT to use criterion (3) while evaluating the overall grammar of the speaker (criterion # 4).

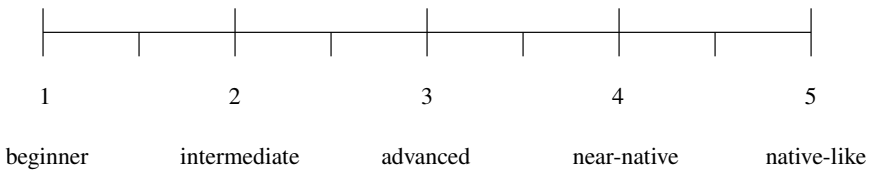
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**Assessment Sheet** **Participant Code:** \_\_\_\_\_

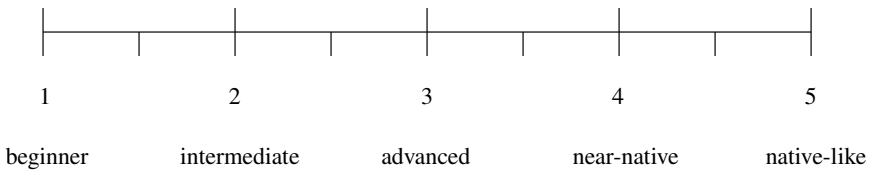
(1) Overall syntax



(2) Vocabulary



(3) Pronunciation and fluency



(4) Overall grammar of the speaker disregarding pronunciation and fluency

