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ROOT INFINITIVES IN CHILD L2 SPANISH

By

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Root Infinitives in Child L2 Spanish

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This thesis aims to develop an understanding of the Root Infinitive (RI) phenomenon in child L2 Spanish. Previous research has investigated this phenomenon in Spanish first language acquisition and in adult L2 Spanish, but much less attention has been given to this phenomenon in children learning Spanish as a second language. This thesis focuses on whether children learning Spanish as a second language go through a RI stage. It also examines which morphological forms and types of predicates appear in the RI stage of these children. The data for this study were collected via natural production in oral and written form, using a wordless book by Mercer Mayer: *A BOY, A DOG and A FROG*. There were 30 child subjects, all native speakers of English, who received Spanish immersion instruction at the Missoula International School in Missoula, Montana.

As hypothesized, the results of this study suggest that children learning Spanish as a second language go through a RI stage. The RI stage for child L2 Spanish was found to be closely related to the RI stage in L1 Spanish. The RI forms in child L2 Spanish appear mainly as bare stems and overgeneralizations. Few morphological infinitives exist in the production of these children. The quantitative results show that the RIs forms manifest primarily with event-denoting predicates. The presence of the RI stage in child L2 Spanish raises fundamental questions about the acquisition of verbal morphology. One question is whether the RI stage can be described as a natural development attributed to cognitive processes, transfer from L1 English or the type of instruction. The results of this study suggest three stages in the acquisition of verbal morphology in child L2 Spanish.

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1. INTRODUCTION

This thesis examines the acquisition of Spanish verbal morphology and specifically investigates the Root Infinitive phenomenon in children learning Spanish as a Second Language (L2). Root Infinitives are verb forms with missing inflection, as in (1).

(1) Child	Adult
John eat (Ø) a cookie	John eats a cookie

One important debatable issue regarding the root infinitive phenomenon has to do with whether all children go through a Root Infinitive stage or not. Wexler (1998) argues that children will produce RIs only if they are acquiring a language that prohibits subject omission (non-null subject languages), such as English, Dutch, German and French. Contrarily, children acquiring languages like Spanish or Italian, which allow subject omission (null subject languages), do not go through the RI stage.

More recently, however, researchers have demonstrated that children acquiring null subject languages do produce RIs (Castro & Gavruseva 2003; Pratt & Grinstead, 2007). Grinstead (1998) and Davidiak & Grinstead (2004) argue that bare stems, morphological infinitives and the overgeneralization of third person singular (3SG) in the past tense may serve as RI forms in child Spanish. An example of a RI produced by a 2;2-year-old Spanish speaking child, taken from Grinstead (1998), is provided in (2).

(2) Child	Adult
<i>Payaso venir</i>	<i>El payaso viene</i>
Clown to come-INF	'the clown comes'

In addition to determining whether or not RIs occur cross-linguistically, researchers have also investigated the semantic properties of these forms. One recent proposal is that RIs only occur with predicates that do not have inherent telicity (Castro and Gavrusseva, 2003). In other words, verbs that are inherently telic and verbs that are inherently atelic appear as finite in the child's discourse, whereas verbs that can be either telic or atelic appear as RIs with great frequency. For example, *darse cuenta* 'to realize' is inherently telic, and *saber* 'to know' is inherently atelic, so these verbs would appear as finite verbs. The telicity of verbs like *caminar*, 'to walk,' however, depends on the arguments that occur with the verb. So, in (3a), *caminar* 'to walk' is atelic, but in (3b) it is telic because the activity has an endpoint.

- (3a) *Camino.* (atelic)
I walk
- (3b) *Camino una milla.* (telic)
I walk a mile

According to Castro & Gavrusseva's (2003) theory, verbs like *caminar*, 'to walk,' occur as RIs, but verbs like *darse cuenta*, 'to realize,' or *saber* 'to know' do not.

While the RI phenomenon has now been documented in monolingual first language acquisition of Spanish, it has not been explored among child second language learners of Spanish. From the perspective of the null hypothesis, one could claim that first language and second language develop differently. However, Dulay and Burt (1974) find that child second language acquisition of morphology is similar to first language acquisition of morphology in the order of morphemes acquired. Based on their study, I

hypothesize that, like in first language acquisition, RIs appear in child second language acquisition of Spanish. This study aims to address the following questions:

- (i) Do L2 learners of Spanish go through an RI stage?
- (ii) What morphological forms of RIs appear in L2 Spanish?
- (iii) Are RIs restricted to particular aspectual classes? If so, which?
- (iv) Is telicity an important predictor of the occurrence of RIs?

The paper is organized as follows. In chapter 2, I present RI forms that have previously been attested. In chapter 3, I explain the debate over whether RIs occur in null subject languages or non-null subject languages. The evidence presented in this section suggests that non-null subject languages and null subject languages behave differently with respect to verbal morphology. Therefore, learners of these languages will produce different types of errors in the RI stage. In chapter 4, I review the literature on the RI phenomenon and describe the semantic theory behind RIs in Spanish. In the same section, I present studies of monolingual Spanish-speaking children to support the claim that the RI phenomenon happens in this language. These studies lead to my predictions in chapter 5 regarding the occurrence of RIs in English-speaking children learning Spanish as a second language. In chapter 6, I present the research data and analysis of L2 Spanish. In chapter 7, I interpret the results and organize the conclusions of the study and in chapter 8, I present the pedagogical implications of this research.

2. OVERVIEW OF ROOT INFINITIVES

Researchers have proposed that children in the early stages of grammatical acquisition acquire verb inflections gradually (Brown 1973). During this acquisition process, children go through a stage in which verbal inflection is omitted. Scholars have called this period the Root Infinitive (RI) stage (Rizzi 1994, Ingram and Thompson, 1996). These forms appear in child language between the ages of two and three (Wexler 1998, Hyams 1996), as shown in table 1.

Table 1. Ages of RIs appear in some child languages.

Language	Age
English	1;6-3;0
German	2;1-2;2
Dutch	1;8-2;4
French	1;8-2;6
Swedish	1;11-2;0
Italian	1;8-2;11
Catalan	1;11-2;6
Japanese	2;3-2;8
Spanish	2;6-2;8

Example (4) includes a list of RIs taken from various studies (Brown 1973; Weverink, 1989; Pierce, 1992; Hyams 1994, Rizzi 1994; Wexler 1994; Poeppel & Wexler 1993; Hoekstra and Hyams 1995; Berger-Morales & Salustri & Gilkerson 2003).

(4)	Child	Adult	Language
a.	Eve sit (ø) floor	Eve sits	Child English
b.	Heidi <i>gucken</i> . Heidi watch-INF Heidi watches.	Heidi guckt Heidi watch-3SG Heidi watches.	Child German

c.	Papa schoenen <u>wassen</u> Daddy shoes wash-INF Daddy washes his shoes.	Papa schoenen wast Papa shoes wash-3SG Daddy washes his shoes.	Child Dutch
d.	Michel dorm <u>ir</u> Michel sleep-INF Michel sleeps.	Michel dort Michel sleep-3SG Michel sleeps	Child French
e.	Pio vayási Spiros read-INF Spiro read.	Pio <u>ðiavási</u> Spiro read-3SG Spiro read..	Child Greek

The examples in (4) show some properties of RIs: i) RIs are tenseless; ii) RIs lack agreement morphology; iii) RIs present cross-linguistic variation; and iv) RIs are associated with eventive verbs. Another observation not presented in these data is that this is a variable phenomenon: a child in the RI stage produces both RI forms and finite forms.

The RI phenomenon is a stage in child language that presents different forms according to the morphology of each language (Philips 1995). For example, some languages have a clear infinitival morpheme (Dutch, German) and other languages do not (English). The expression of finiteness is marked differently; some languages mark tense through person morphology (Italian, Spanish), tense morphology (Japanese), and others through number (Dutch). These differences make the RI phenomenon manifest in different ways across languages. Thus, in English (4a) with no infinitival morpheme, a bare form (no tense and agreement morphology) marks RIs, whereas in German (4b), Dutch (4c), and French (4d), children produce RIs as infinitives by means of an infinitival morpheme. In other languages such as Greek (4e), which lacks an infinitival morpheme,

RIs appear as a bare perfective. This form does not have past tense morphology or a modal particle (Hyams, 2002, 2005). In Catalan, RIs occur as third person singular which is also a default form (Perales *et al.*, 2006). In Italian the imperative and the bare perfective without an auxiliary should be taken as the RI form (Hyams 2003). On one hand, this suggests that RIs in child language are instantiated by different morphological representations. On the other hand, true RI-languages are those in which RIs appear as morphological infinitives.

According to Perales et al, (2006) features such as +/- infinitival morpheme, +/- distinctive marker morpheme, and +/- subject language determine the duration of the RI stage cross-linguistically. Therefore, English which has [-] infinitival morpheme, [-] distinctive marker morpheme and is [+] non-null subject language will have the longest period in the RI stage. On the other hand, Italian or Spanish which are realized as [+] infinitival morpheme, [+] distinctive marker morpheme and [-] non-null subject language will have a shorter period in the RI stage than English. While some scholars agree that RIs occur across languages, others disagree. In the next chapter, I present two different perspectives on the RI phenomenon cross-linguistically.

3. RIs IN NULL AND NON-NULL SUBJECT LANGUAGES

3.1. The Debate

Non-null subject languages are languages that require an overt subject. For example, in English 'Eats pizza' is not a grammatical sentence because a subject is required. In null subject languages like Spanish, Italian, Korean, Chinese, etc., such a sentence is grammatical because subject omission is permitted. Wexler (1998) claims that RIs only occur in non-null subject languages. The lack of RIs in spontaneous language production collected from children speaking null subject languages support this claim (for Italian, Guasti 1994; for Catalan, Torrens 1992). Table 2 presents percentages of RIs out of total number of verbs produced in null and non-null subject child languages.

Table 2. Percentages of RIs in null subject and non-null subject languages (adapted from Perales *et al.*, 2006)

Non-null subject languages		Null subject languages	
French	49%	Spanish	8%
Swedish	38%	Italian	7%
Dutch	36%	Basque	13%
		Catalan	7%

The results in Table 2 indicate that speakers from null subject languages produce a small amount of RIs. For example, Spanish monolinguals produce only 8% of their total of verbs as RIs compared to monolingual French speakers who produce 49% of verbs as RIs. The low percentage of RIs found in null subject languages like Spanish led scholars to think that RIs do not occur as a stage of development in these languages.

A number of important studies have investigated Wexler's claim regarding the absence of RIs in null subject languages. Notable results in this line of research have

found that monolingual child speakers of null subject languages like Spanish¹ produce RIs during the early stages of grammar acquisition (Castro & Gavruseva 2003; Pratt and Grinstead 2007; among others). In the following section, I review evidence that supports the RI phenomenon in Spanish.

3.2. Evidence of RIs in Monolingual Spanish

The influential work of Pratt and Grinstead (Henceforth P&G 2007) has transformed the way we interpret RIs in null subject languages. First, P&G (2007) argue that researchers did not find RIs in previous studies of Spanish because they only looked for morphological infinitives² as a manifestation of this phenomenon. But RIs in Spanish can appear as bare forms and overgeneralized third person singular (3sg) forms, in addition to infinitives. These RI forms can easily be camouflaged as finite forms even though they are not finite forms but RI forms. Previous studies only relied on spontaneous production data. It can be difficult to identify a bare stem in production data because a bare form could be interpreted as a true 3sg form. For example, *baila*, 'dance,' appears, at first glance, to mean 'he/she dances.' But children actually say *baila* meaning *yo baila*, 'I dance,' thereby producing a mismatch in person-verb agreement. Without the overt subject, the subject of the verb, all we can analyze is *baila*. Thus, *baila* will typically be interpreted as a 3sg verb, in which case an example of a bare form will go unnoticed.

¹ RIs have been found in other null-languages like Japanese, Italian and Catalan.

² Morphological infinitives are verbal forms that lack inflection in person, number or tense.

The term 'bare stem' comes from languages like English where verb stems have zero morphemes at the end. In English, a verb stem 'talk' could also be a bare stem 'talk' with a zero morpheme (\emptyset). However, in languages like Spanish a bare stem cannot be formed with a zero morpheme (\emptyset) because that would result in a consonant cluster like *habl-* 'speak.' In Spanish, the bare stem is formed by adding a theme vowel (-a-, -e-, or -i-) to the verb stem. Therefore, the verb stem *habl-* + 'a' (theme vowel) will form the bare stem *habla* 'to speak'. This suggests that Spanish has bare stems with a theme vowel and English has bare stems with zero morphemes (\emptyset). These bare stems lack inflection, agreement and functional content (Tsimplici, 1992).

Keeping the potential ambiguity between 3sg and bare forms in mind, P&G (2007) reanalyzed data collected from a spontaneous production task and found that children produced bare stems with overt and null subjects in the present indicative tense. Examples (5) and (6) demonstrate a mismatch between an overt subject (1SG pronoun) and the verb (bare form). In (5) and (6) the copula *es* 'be', which could be a 3SG indicative or a bare stem, does not agree with the subject pronoun *yo* 'I'. In these examples, it is easy to identify the mismatch between the bare stem *es* 'be' and the subject pronoun *yo* 'I' because of the overt subject 'I'. Examples (7) and (8) demonstrate more evidence in which children produce null subjects with bare forms that do not agree with the intended referent of the null subject. In example (7) the child answered a question regarding his ability to put two pieces of a puzzle together (P&G, 2007). In example (8) the child asked her mom if she wanted a band-aid (P&G, 2007). In these examples the bare stems *quiere* 'want' and *puede* 'can', which lack specific morphology,

are used to refer to first person singular subject *yo* 'I'. The interpretations of examples (7) and (8) are based on the contextual analysis of the data gathered.

Adult says	child says
(5) <i>Soy yo</i> Copula 1st sg I-nom "it is I"	<i>Es yo</i> Copula (Ø) I-nom "is I"
(6) <i>Eres tu</i> Copula 2 nd sg you-nom "are you"	<i>es tu</i> copula (Ø) you-nom "is you"
(7) <i>No puedo</i> I cannot 1 st sg I cannot	<i>No pued-e.</i> Not can (Ø) (I, you, he, she) cannot
(8) <i>No quiero</i> I don't want 1 st sg I don't want	<i>No quier-e</i> Not want (Ø) (I, you, he, she) do (es) not want

P&G also reanalyzed the results from two studies which used elicited production tasks. In one study, (Perez-Pereira 1989), 3 to 6 year-olds were asked to conjugate nonce verbs in 3sg past tense. These children were given the verb and the subject pronoun to see the grammatical competence in verb conjugation. He found that even children at the age of 6 years conjugated verbs 22% of the time without correct inflection. Unfortunately, this study only tested forms in 3SG past tense which does not provide very much information about the type of errors that children produce during the RI stage. It only suggests that children as old as 5 year-olds monolinguals can still produce errors when inflecting verbs.

In the second study (Bedore and Leonard 2001), 3 and 5 year-olds were asked to conjugate real verbs in 1st and 3rd singular and plural in the present indicative and past

tenses. While 3 year-olds produced more RIs (15%) with bare stems and morphological infinitives in singular contexts, 5 year olds dropped the percentage of RIs (4%) and started using a variety of RI forms. The older children in this study used more overgeneralizations and mismatch with plural forms. The data from this study suggest the following: i) in the RI stage younger children produce more singular forms than plural forms;³ ii) bare stems and infinitives are the most common RI forms used by younger children; iii) overgeneralizations are a sign that the RI stage is disappearing (Clahsen, Avelado & Roca 2002); iv) children make fewer errors as they get older.

In addition to analyzing spontaneously produced data, P&G created a grammaticality judgment task⁴ conducted with 15 monolingual child-Spanish speakers from Mexico from age 4;1 to 5;10. In this task researchers told the children that they were going to play a game in which the characters were still learning how to talk and they were going to help characters to speak correctly. All person and number forms were used. Before the actual test, children participated in a warm-up activity to make sure they understood the grammaticality judgment task. Children were shown animated past and present situations on a computer screen, and they heard sentences describing the situations. Then the children were asked *¿lo dijo bien o mal?* 'Did he say it right or not?' Children were presented with 15 items in the present tense and 17 in the past tense. Three of the utterances were grammatical in both past and present tense, such as *la tortuga brincó*, 'the turtle jumped'. The rest of the sentences were ungrammatical, such as

³ Perales et al. (2006), claim that the underspecification of the feature person triggers the *Avoid Plural Phenomenon* in null subject languages.

⁴ P&G's grammaticality judgment was an adaption of McDaniel & Cairns (1990), McDaniel Chiue & Maxfield (1995) and Rice, Wexler & Redmond (1999).

ustedes pintar 'you paint-INF'. These ungrammatical sentences were taken from spontaneous and elicited production in previous studies.

P&G (2007) reported that in the grammaticality judgment task, Spanish monolingual children accepted 27% of ill-formed and rejected 27% well-formed verbs. This contrasts with the results found in monolingual 5 year-old English speakers in Rice, Wexler and Redmond (1999), who only accepted 10% of nonfinite verbs (bare stems) as grammatical. These results lead us to conclude that the RI stage happens in Spanish (a null subject language) as well as in English (non-null subject language). In addition, one can say that 5 year-old children speaking Spanish still have difficulty judging grammaticality regarding verbal morphology in both Spanish and English. Therefore, across languages, the RI phenomenon is a stage of development in the acquisition of verbal morphology.

In summary, P&G's results (2007) clarify the debate that null subject languages do not pass through RI stage. They present evidence of the RI stage in monolingual children of Spanish, RIs occur as i) bare stems (example 9), ii) infinitives (example 10), and iii) overgeneralized 3SG past tense (example 11).

- | | | |
|-----|--|--|
| 9) | <i>Habla</i>
Speak (stem + "a" thematic vowel)
"I speak" | (Bare stem) |
| 10) | <i>Payaso pintar</i>
clown paint \emptyset | (infinitive) |
| 11) | <i>Habló en mi casa</i>
speak 3SG past
'I spoke in my house' | (Overgeneralization of
3SG past tense referring to 1sg) |

During the RI stage younger children produce mostly infinitives and bare stems whereas older children produce more overgeneralization and plural forms as an indication that the RI stage is disappearing. Although bare stems, morphological infinitives and overgeneralization of 3SG past tense are forms of the RI stage, these data lack information about the predicate types children choose in the RI stage. This raises the important question of whether all predicates occur as RIs or only some of them. Various approaches are available in the literature that attempt to explain this question. In this thesis, I will present the semantic approach. This approach shows that there is a relation between the type of predicate and the acquisition of finiteness. In the next chapter, I will present the information collected by Hoesktra and Hyams (1998) and Castro and Gavruseva (2003) that demonstrate that children use mostly eventives to appear as RIs across languages.

4. THE SEMANTICS OF RIS

Having established that RIs occur in Spanish to a point that constitutes a stage, I now turn to a discussion of the semantic properties of RIs. Researchers have found that the occurrence of RIs is restricted by the aspectual properties of the predicates (Hyams 1996, 2003). Using Vendler's classification of verbal predicates (1956, 1967), researchers have been able to identify which types of predicates occur as RIs in child languages.

Vendler (1956, 1967) classified verbal predicates into four basic classes according to their inherent properties in (12):

- (12) a. States: non-dynamic and temporally unbounded predicates, e.g., be sick, be tall, love, know, believe, have, want.
- b. Achievements: predicates that encode instantaneous changes, usually changes of state but also changes of activities, e.g., explode, collapse, shatter, break, notice something, realize something.
- c. Accomplishments: predicates that encode temporally extended (not instantaneous) changes of state leading to a culmination of the event, e.g., melt, freeze, recover from illness, learn, write a novel, read the novel, build a house, run a mile.
- d. Activities: dynamic and temporally unbounded predicates, e.g., march, walk, swim, think, rain, read, eat, run, walk.

These four classes of verbs can be categorized as either Events or Statives (Hoekstra and Hyams, 1998). Stative verbs denote states or conditions, e.g., being crazy, knowing, etc. Eventive verbs, on the other hand, denote actions or events. These include achievements, activities and accomplishments; for instance, building a house, running, breaking, etc.

According to the semantic approach, the distribution of RIs is particularly associated with the aspectual class of the verbs. It has been found that in Dutch, German and French, children produce RIs almost exclusively with eventives. In these languages, RIs hardly ever occur with statives. To capture this generalization, Hoekstra and Hyams (1998) propose the *The Eventivity Constraint* (13).

(13) *The Eventivity Constraint (EC)*
 RIs are restricted to event predicates

The data in table (3) provide support for the *EC*. RIs always occur more frequently with the eventives than statives. As it is demonstrated, in German, 100% of children's RIs are eventives. In Russian, 98% of the RIs are eventives and a small 2% of RIs are statives.

Table 3. Results of RIs of eventive and stative predicates across languages (Van Gelderen and Van der Meulen 1998; MacWhinney and Snow 1985, Ud Deen, 1997)

Predicates	Dutch	German	Russian	English
Eventive	95%	100%	98%	75%
Statives	5%	0	2%	25%

The rates of eventives and statives are different across languages. For example, in Table 3, we see that in English only 75% of RIs are expressed with eventives, and 25% of RIs appear with statives. In this sense, the *Eventivity Constraint* is considered strong in some

languages (Dutch, German, Russian) and weak in others (English). Despite the different rates of eventive RIs cross-linguistically, it is significant to note that RIs occur more frequently with eventives than statives.

In addition to RIs occurring mostly with eventive verbs, it has been noted that children's utterances in which RIs occur are typically interpreted as desires or wishes. Thus, Hoekstra and Hyams (1998) argue that there is a missing modal in utterances containing RIs, and propose the Modal Reference Effect (14) which explains the occurrence of morphological infinitives.

(14) *Modal Reference Effect (MRE)*

With overwhelming frequency, RIs have modal interpretations

So, when a child says in Spanish *sentar*, 'to sit,' he really means *quiero sentar*, 'I want to sit.' Examples of this, from Child Dutch (Wijnen 1996) are provided in (15)

(15) a. *Eerst kaartje kopen!*

First ticket buy-INF

'We must first buy a ticket'

b. *Niekje buiten spleen.*

Niekje outside play-INF

'Nick wants to play outside'

c. *Papa ook boot maken.*

Papa also boat make-INF

'I want Papa to also build a boat'

d. *Jij helicopter maken.*

You-NOM helicopter make-INF

'You must build a helicopter'

The idea that RIs in some languages have modal interpretations is based on the observation that RIs refer to the future, but not the present or past. The present and past are characterized as belonging to the *realis* mood because they refer to events that are realized. The future, on the other hand, is *irrealis* and refers to eventualities that are not yet realized and express the child's needs, wishes, intentions (H&H 1998). Table 4 illustrates the percentage of RIs that refer to past, present, and future events.

Table 4. Percents of RI verbs referring to past, present and future events (H&H 1998)

Modal Interpretation	Dutch	French	English
Present Tense (<i>realis</i>)	10%	35%	55%
Past Tense (<i>realis</i>)	3%	35%	28%
Future/modal inter. (<i>irrealis</i>)	86%	65%	17%

The results in table 4 suggest that the *Modal Reference Effect* is a strong predictor of the RI stage in languages like Dutch (86%) and French (65%). In these languages the morphological infinitives have a modal reference (*irrealis*). Table 4 also indicates that there are differences between Dutch and French on the one hand, and English on the other. In English, the *Modal Reference Effect* applies differently due to morphological differences. For example, in English, which lacks both an infinitival morpheme and person morphology, the *irrealis* interpretation is represented by the semi-auxiliaries 'hafta,' 'wanna' and 'gonna'. These semi-auxiliaries are modals (Perales et al. 2006). In French or Dutch, which have a non-distinctive infinitival morpheme, the *irrealis* interpretation is represented by morphological infinitives. In Romance null subject languages that have a distinctive infinitival marker and person morphology, such as

Italian and Spanish, the opposition of *realis/irrealis* is marked by bare stems, unmarked forms and morphological infinitives. This variability suggests the following things: first, non-null subject languages with no distinctive infinitival marker in their morphology (Dutch, French) will have a strong *MRE*. Second, non-null subject languages that lack infinitival morphemes (English) will have a weak *MRE*. This is also true with null subject languages with distinctive infinitival morphology (Spanish, Italian). Finally, morphological infinitives not only have modal interpretations, but also past and present interpretations (Spanish).

On the basis of this evidence, it has been observed across languages that RIs have a variety of temporal interpretations and are more likely to occur with eventives than statives. Despite these findings, there is at least one area where our knowledge is still limited, the types of eventives that appear as RIs. Recent studies have investigated the relationship between the semantic features that characterize the eventives (achievements, activities and accomplishments) and RIs. It has been found that features such as punctual/nonpunctual and telic/atelic play an important role in the distribution of RIs. In the next section I will discuss how these features interact in the RI stage.

4.1. Castro & Gavruseva 2003: Inherent Telicity Hypothesis

Castro and Gavruseva (2003) take the *Eventivity Constraint* one step further and claim that only certain types of eventives appear as RIs. According to C&G (2003), the presence of RIs is determined by the aspectual properties of eventives (telicity and punctuality). Punctuality refers to the temporal duration of the verb (instantaneous or in stages). Telicity refers to a natural endpoint in the activity. As mentioned in the

introduction, C&G (2003) propose that verbs that are inherently telic or inherently atelic appear as finite in the child's discourse, whereas verbs that can be either telic or atelic appear as RIs. For the purposes of clarity, in Table 5, I repeat Vendler's aspectual classes and classify them in terms of telicity and punctuality.

Table 5. Vendler's aspectual classes

Aspectual class	Telicity	Punctuality	Examples
Statives	Atelic	No duration	'To be,' 'to have,' 'to want'
Activities	Atelic	Nonpunctual	'To run,' 'to walk,' 'to breathe'
Accomplishments	Telic	Nonpunctual	'To write a novel,' 'to build a house,' 'to run a mile'
Achievements	Telic	Punctual	'To die,' 'to break,' 'to notice something,' 'to realize'

Telicity refers to a natural endpoint to an event. If one says "I ran yesterday," there is no endpoint to running identified. On the other hand, if one says "I ran a mile yesterday," the activity of running has an endpoint, that is, the speaker stopped running after one mile. Punctuality refers to the duration of the event whether "it is instantaneous or has some internal temporal structure (a beginning, middle and end phase" (C&G, 2003). Statives do not have duration, and, therefore, are not categorized as punctual or nonpunctual. Activities and accomplishments are nonpunctual because these events have duration; they are not instantaneous. Achievements such as 'to realize,' on the other hand, happen instantaneously, and, therefore, are considered punctual. A third feature that distinguishes statives from eventives is the dynamicity. C&G do not consider this feature in their analysis for two different reasons. First, there are different types of energy when performing an event (mental, physical, emotional, voluntary or involuntary). Second,

they do not lack dynamicity. States require any type of energy to be expressed. Therefore, this thesis will only consider the features that seem transparent in the statives/eventives distinction. According to Gavrusseva (2003), achievements (such as 'to realize') are inherently telic and statives (such as 'to be') are inherently atelic. Other verbs (such as 'to run') belong to the classification of transient verbs since these can become accomplishments by adding a definite complement (such as 'to run a mile').

The claim is that children produce RIs with verbs that do not have inherent telicity. Verbs without inherent telicity derive telicity via syntax. This means that these verbs get their telicity meaning when combining the verb with an object. The idea is that children can access telicity information only when it is encoded as part of the verb's lexical information, but they cannot do so when telicity is determined by a verb's complement or adjuncts (syntax). In this case telicity is determined by the syntactic operation and that syntactic feature is underspecified in the child's grammar. On this basis, Gavrusseva (2003) propose the Inherent Telicity Hypothesis.

16) Inherent Telicity Hypothesis

Verbs with inherent telicity should be overwhelming finite and verbs with unspecified telicity features will be predominantly RIs.

For children, verbs whose telicity needs to be computed both syntactically and semantically require more attention. This is a more complex process. Examples of verbs with inherent telicity are in (17). Verbs such as 'love,' 'want,' 'rest,' 'float' or 'need' (17a), which do not have an endpoint in the activity, are inherently atelic. Verbs such as 'break,' 'build,' 'fall,' 'trip,' 'halt' and 'land' (17b), which have an endpoint, are inherently telic.

- (17) a. *Amo a mi mamá* (inherently atelic)
 I love my mom
- b. *Camila rompió el vaso* (inherently telic)
 Camila broke the glass

According to C&G's (2003) proposal, verbs like those in (17), which have inherent telicity, will appear as finite in children's speech.

Now consider eventive verbs that can behave as either telic or atelic. These types of verbs are non-punctual (activities and accomplishments), and G&C (2003) call them transient verbs. The specification of aspect in transient verbs is determined by the argument or the adjunct of the predicate (Sanz 1996, 1999). In example (18), taken from Sanz (1999), the verb '*leyó*' (he read) is considered a transient verb, and its telicity is dependent on the NP object. For example, if the predicate has a bare plural NP, then the predicate receives an atelic aspectual specification. But if the predicate has an indefinite NP, then the predicate can receive telic properties.

- (18) a. *Juan leyó libros.*
 Juan read.3SG.PRET books
 'Juan read books.' = atelic
- b. *Juan leyó un libro.*
 Juan read.3SG.PRET a book
 'Juan read a book.' = telic

Examples (18a) and (18b) illustrate that the aspectual properties of the verb *leyó* depend on the verb's arguments. In (18a) the NP *libros* is an indefinite plural noun that gives the atelic (non-punctual) properties to the event '*leyó*'. In (18b) the NP *un libro* is an indefinite article that can specify the punctuality of the event.

There is a linguistic test for telicity that can help us identify punctuality of events. By adding the adverbials 'for an hour' or 'in an hour,' one can identify if an event is telic or atelic (Dowty, 1979). The compatibility of 'for an hour' with the sentence indicates that the event is atelic, as in 'John read books for an hour.' If the addition of 'for an hour' results in a semantic anomaly, this indicates that the event is telic. Notice that 'John read a book for an hour,' sounds much more awkward than 'John read books for an hour.' On the other hand, 'in an hour' should be compatible with telic events, but not with atelic events. Notice that 'John read books in an hour' is semantically anomalous, but 'John read a book in an hour' sounds perfectly fine. Thus, the telicity of verbs like *leer*, 'to read,' depends on the arguments that occur with the verb (C&G, 2003).

According to G&C (2003), verbs like *leer*, 'to read,' which lack inherent telicity, appear as RIs in children's speech during the RI stage. The idea is based on the notion that the telicity of these verbs depends on both semantics (type of predicate) and syntax (complements). On the other hand, for verbs like *amar*, 'to love' or *romper* 'to break,' telicity is encoded as part of the verb's semantic representation and is unaffected by syntactic processes. This evidence lead us to conclude that for children, proper morphological inflection of verbs that check their telicity via both syntax and semantics will appear later in language acquisition. Contrarily, verbs for which telicity is only derived from semantics (inherent aspect of the verb) will be acquired earlier in the acquisition process. The process of deriving telicity via syntax and semantics is more complex than encoding telicity as a part of a verb's lexical information.

Table 6 summarizes the predictions of G&C (2003) in Spanish during the RI stage. Verbs considered [-telic] (such as states) or [+telic] eventives (such as

achievements) will not appear as RIs. However, [+/-telic] verbs (activities and accomplishments) will appear as RIs. In other words, the -/+ inherent properties of the verbs will specify whether the verb appears as an inflected or as uninflected verb.

Table 6. Predicted Verb Types in the RI stage

Aspectual class	Telicity	Punctuality	RIs	Examples
Statives	Inherently atelic	Nonpunctual	no	<i>amar</i> 'love', <i>saber</i> 'to know', <i>querer</i> 'to want', <i>tener</i> 'to have'
Activities	Transient	Nonpunctual	yes	<i>Leer</i> 'to read' <i>Caminar</i> 'to walk' <i>Correr</i> 'to run' <i>Jugar</i> 'to play'
Accomplishments	Transient	Nonpunctual	yes	<i>Escribir una novella</i> 'To write a novel.' <i>Construir una casa</i> 'to build a house.' <i>Correr una milla</i> 'to run a mile.'
Achievements	Inherently telic	Punctual	no	<i>Caer</i> 'to fall' notice <i>Botar</i> 'throw' <i>llegar</i> 'to arrive'

In order to investigate these predictions, G&C (2003) analyzed the acquisition of finiteness in the languages of a Spanish/English bilingual 2-year-old child, Mina. Data were collected by videotaping and tape-recording spontaneous production from Mina. The information was coded according to three categories: the *Aktionsart* of the verb (statives, punctual and non-punctual eventives), the temporal interpretation (past, present, future) and the aspectual interpretation (telic, atelic).

G&C (2003) reported that Mina inflected punctual eventives, such as *echar jugo* 'to spill juice' and statives, such as *tener* 'to have.' Transient verbs were not inflected, as demonstrated by examples (19a) and (19b). In example (19) below the errors could be analyzed in two different ways. The symbol (r?) in (19) means that these errors could be

either morphological infinitives considering that Mina couldn't produce the 'r' in final contexts, or they could be bare stems. In either case the form is a RI.

- (19) a. **dibuja* (r?) *yo*
 Draw.3SG/INF I
 'I will draw.'
- b. **mi come* (r?) *este*
 I eat. 3SG/INF this
 'I will eat this.'

Notice that the sentence in (19a) does not have an object that makes the verb *dibujar* 'to draw' telic or atelic. The same is true of (19b); the demonstrative *este*, 'this,' in the predicate does not make the telicity of the event *comer* 'to eat' clearly atelic or telic. The interpretations of the sentences in (19) were based on parental responses. Thus, G&C coded these utterances as future events. In this case, the findings support the *MRE* in the sense that these morphological infinitives or bare stems have a modal interpretation.

G&C uncovered an interesting phenomenon with the verb *ir* 'to go.' When *ir* was used in the periphrastic construction *ir* + infinitive to denote future events, it was inflected properly, as demonstrated by the use of *voy* in (20).

- (20) *yo voy a da(r) más té (a) papá.*
 I go-1SG to give more tea to daddy
 'I'm going to give more tea to daddy.'

However, when Mina used the verb *ir* 'to go' as a lexical verb, as in (21), it appeared as a RI. In this case the verb behaves as a non-punctual eventive. In (21) there is a mismatch: the verb is in 3SG where 1SG is expected in the adult production. This lack of agreement in (21) is taken in G&C (2003) as an example of a RI in Spanish.

(21) *y va en otro avión.
I go. 3SG in another plane.

(Taken from G&C, 2003)

The examples in (20) and (21) show that when the verb *ir* 'to go' is used as a lexical verb, it will appear as a RI. However, if the same verb is used in a periphrastic construction, it will appear as finite. In sum, G&C (2003) concluded that inherently telic/atelic verbs appeared as inflected forms and transient verbs appeared as RIs in Mina's Spanish production.

We have seen that monolingual children of Spanish show a natural development in the acquisition of verbal morphology. RIs occur as morphological infinitives, bare stems and overgeneralization of 3SG past tense in the speech of L1 learners of Spanish. Additionally, it was demonstrated that L1 learners of Spanish are constrained by the *EC*, the *MRE* and the Telicity Hypothesis. While this is clear in the acquisition of Spanish as a first language, no study has investigated the RI phenomenon in children acquiring Spanish as a second language. It is important to note that some studies done on child second language acquisition of morphology predict that L1 and L2 develop similarly. Thus L1 Spanish and L2 Spanish should show similarities in the acquisition of verbal morphology. In the next section, I will discuss the findings that support this assumption.

4.2. RI in Spanish as a Second Language

Different studies have found that some processes in child second language acquisition are similar to the process in first language acquisition (Dulay & Burt 1973; Krashen, Butler, Bimbaum, & Robertson, 1978). A pioneer study in the acquisition of

morphemes in L2 by Dulay & Burt (1974) demonstrated the acquisition of English morphemes in a group of 60 Spanish and 55 Chinese learners. English morphemes (3SG's', irregular past tense, plural, etc⁵) already studied in L1 development of English (Brown, 1973) were selected in the study of Dulay and Burt (1974). Production data were elicited through a cartoon series of pictures and questions.

Dulay and Burt investigated whether the order of morphemes found for L1 English would be similar in L2 learners. They found that the order of acquisition exhibited the same tendencies of development in L1 and L2. Thus, they concluded that despite the L1 language background (Chinese and Spanish), learners showed a similar order of acquisition and similar errors when learning the L2 English morphemes.

This study indicates that, independently of the language that is acquired, children will go through similar (not the same) stages of grammatical development (Dulay and Burt 1974). Dulay and Burt's study (1974) suggest for this thesis that if RIs happen in L1 Spanish then they should also occur in L2 Spanish. In Spanish as a first language, the RI phenomenon is a stage of acquisition that appears before the age of two and decreases with age (5-6 years old) (Bell 2001; Ezeizabarrena 1997; G&P 2003). I propose that verbal morphology in L2 Spanish emerges gradually and that the RI phenomenon will happen with certain verbs but not with all verbs. More specifically verbs that have inherent telicity will appear most likely as finite verbs and transient verbs will occur with greater frequency as RIs.

⁵ According to Brown (1973) this is the order of L1 acquisition of English morphemes: ranked from the first to the last: Present progressive (*-ing*), *in-on*, plural (*-s*), past irregular, possessive (*'s*), uncontractible copular (*is, am, are*), articles (*a, the*), past regular (*-ed*), 3rd singular (*-s*), 3rd irregular, uncontractible auxiliary (*is, am, are*), contractible copula, and contractible auxiliary.

I expected to find similarities between monolinguals and L2 learners of Spanish regarding the RI phenomenon. Based on the studies done with monolingual Spanish, I proposed that children learning Spanish as a second language would go through a RI stage. In addition, I expected that they would show the same trends in the acquisition of verbal morphology. Specifically, I anticipated that L2 learners would use the 3SG as the default form, morphological infinitives and overgeneralization of 3SG past tense when finite forms are expected. I also expected that only verbs that share properties of +/-telic with non-punctuality aspect would show up as RIs. However, even though I anticipated some similarities in the RI stage in L1 and L2, I considered that the perceptual saliency (rich morphology in Spanish) of certain morphemes, the frequency of input in which the morphemes appear, and the semantic and syntactic complexity composition of predicates would also explain the early or late acquisition of some verbal morphemes in L2 Spanish compared to L1 Spanish.

In the next chapter, I will present the methodology I followed to gather the data, the subjects who participated in this research, and the way the data was analyzed.

5. THE EXPERIMENT

5.1. Subjects

The study was conducted with 30 subjects, whose ages range from seven to eleven years old. These children are instructed in a Spanish immersion environment at the Missoula International School (MIS). The amount of exposure to this Spanish immersion environment varies among the subjects, ranging from two to seven years. Of the 30 experiment participants, 17 received explicit verb conjugation instruction during the 2007-08 academic year. The other 13 students had incidental, implicit exposure to verbal morphology using reading materials and through natural exposure to the language. The experiment was conducted at MIS.

5.2. Experimental Design

Data were gathered from oral and written narratives collected in two different sessions. In session one, subjects were asked to create oral stories based on a wordless picture book titled *A BOY, A DOG and A FROG*, by Mercer Mayer. The book describes the adventures of a boy and his dog in search of a runaway frog. The oral narratives were audio recorded. In the second session, the children looked at the picture book again and wrote their stories on a piece of paper. The aim of conducting two different tasks was to collect spontaneous data orally, and also to determine the participants' grammatical competence with respect to subject verb agreement via a written narrative. Prior to conducting the study, the learners were informed of the research and what they were going to do. Initially, a pilot project was conducted with ten children. The findings of the pilot project helped identify issues that had to be addressed prior to conducting the

actual study. First, I found that children repeatedly asked for assistance from an adult in order to express the utterance (especially verbs) entirely in Spanish. When assistance was denied, children code-mixed English and Spanish to convey what they wanted to say. I realized that giving them the infinitive form or allowing them to use English would alter the results of the study. Second, I noticed that asking the subjects to tell the story from the book, I would primarily elicit information in third person singular (3SG). As explained in Section 4, this form is a default form. This is a camouflaged form that could lead to misinterpretations in the data analysis process. Hence, in the actual study, I disallowed English and I did not give them the infinitive form of any verb. I decided to elicit information by telling the students to pretend that they are the characters in the book. In that case, I could get information in first person singular (1SG) and possibly some data in first person plural (1PL). I also told them to be creative in the use of language. In other words, if they did not know the word (verb), they could use circumlocution in order to convey the meaning of what they wanted to say.

5.3. Coding

In order to gather the corresponding data, I coded the predicates in the same way that previous studies (P&G, 2007; C&G, 2003) have coded L1 Spanish. In this way, the results for child L2 would be comparable to child L1. All finite and non-finite forms were coded. I considered a lexical verb to be finite (inflected) if it had a correct person/tense/agreement affix. I then identified which verb forms were RIs. For this study RIs included: bare stems, morphological infinitives, and overgeneralizations of past tense third person singular. An observation made during the time I was gathering the data was

that L2 learners were using forms in second person singular indicative to denote first singular references. For example, they produced sentences like *yo cantas* 'I sing-2SG.' Thus, I coded this form to test whether this form could be counted as a RI or not. I also classified verbs according to their tense (present, past, future), mood (subjunctive, indicative or imperative) and aspect (preterite versus imperfect), person and number (1st, 2nd, 3rd singular or plural). Verbs were also classified according to semantic aspectual class (stative, activity, accomplishment, and achievement verbs) and whether they had inherent telicity (statives and achievements) or were transient (activities and accomplishments). The steps I took to code for inherent aspect were as follows: (1) predicates that had correct agreement morphology were selected from the oral and written discourse; (2) unintelligible utterances were excluded from the analysis; (3) ambiguous constructions in the imperfect such as *estaba enojado* 'was mad' were omitted because this form could appear with both first person singular or third person singular and, therefore, would mean either 'I was mad' or 'he/she was mad;'; (4) aspectual class was determined by applying tests, as described below, adapted from Shirai and Andersen (1995:749). Appendix B shows a chart that represents this coding.

Researchers on Second Language acquisition (C&G, 2003) have relied on Shirai and Andersen's test (1995) to classify predicates into aspectual categories. The significance of doing this test step by step is not only to discard misinterpretations on the inherent lexical aspect of the predicates but also to maintain comparability across studies and offer a more accurate analysis.

Test 1: Stative or Eventive: This test differentiates between statives and eventives.

Does the verb have a habitual interpretation in simple present tense?

If no → Stative example: I love you

If yes → Eventive example: I eat a sandwich

If eventive, go to test 2

Test 2: Activity or other (accomplishment/achievement): This test distinguishes

between telic and atelic predicates.

If you stop in the middle of the event, have you done the act of the verb?

If yes → Activity ex. I stopped in the middle of running = I ran.

If no → Nonactivity ex. I stopped in the middle of running a mile ≠ I ran a mile.

If nonactivity, go to test 3

Test 3: Accomplishment and achievement: one way to gauge whether a verb is punctual or non-punctual is by applying test (a), (b) or (c). If test (a) does not work, apply test (b), or (c).

(a) If 'X' Ved in Y time (e.g. 10 minutes), then 'X' was Ving during that time.

If yes → Accomplishment example: He painted a picture

If no → Achievement example: He noticed a picture

(b) Is there any ambiguity with *almost*?

Achievements only get one reading: it never happens and accomplishments get two readings: it started but never finished or you never started the event.

If yes → accomplishment example: 'He almost painted a picture' has two readings: he almost started to paint a picture/he almost finished painting a picture.)

If no → Achievement example: 'He almost noticed a picture' can only mean he almost started to notice a picture, but he never noticed it.

(c) 'X will VP in Y time (e.g. 10 minutes) = X will VP after time'

if no → Accomplishment example: 'He will paint a picture in an hour' is different from 'he will paint a picture after an hour,' because the former can mean that he will spend an hour painting a picture but the latter does not.

if yes → Achievement example: he will start singing in two minutes can only one reading, which is the same as 'he will start singing after two minutes,' with no other reading possible.

In the analysis of the data from the Missoula International School, the steps outlined above were followed for each of the verbs. The following is an example of the classification for one of the predicates in my data. For the sentence *yo corro hasta el lago* 'I run to the lake' the interpretation of the verb according to Shirai and Andersen's (1995) test would be:

Step 1: Stative or Eventive

Does *corro al lago*, 'I run to the lake' have a habitual interpretation?

- yes → eventive

Step 2: Activity or Nonactivity

If you stop in the middle of *corriendo hasta el lago*, 'running to the lake' have you done the act of *correr hasta el lago* 'to run to the lake?'

- no → nonactivity (achievement or accomplishment)

Step 3: Achievement or Accomplishment

a) If 'X' V-ed in Y time (e.g. 10 minutes), then 'X' was V-ing during that time.

If 'I ran to the lake in 10 minutes' then I was running to the lake during those ten minutes.

- yes → accomplishment

b) Is there ambiguity with almost?

- Yes, because 'I almost ran to the lake' has two readings: he almost started to run to his house or he almost reached the point to arrive to his house.

= accomplishment

c) 'X will V in Y time (e.g. 10 minutes) = X will V after time'

'I will run to the lake in an hour.' ≠ 'I will run to the lake after an hour.'

Because 'I will run to the lake in an hour' can mean 'I will run to the lake for an hour' in addition to 'I will run to the lake in an hour.'

= accomplishment

Thus, according to all three tests, the verb *correr* 'to run' is considered an accomplishment. Since accomplishments change telicity according to their complements, this verb was considered a transient verb. After interpreting the verb as a transient verb, I moved into investigating whether its complement gives the verb *correr* 'to run' an atelic or telic interpretation. In the sentence *yo corro hasta el lago* 'I run to the lake' the

preposition *hasta* 'to or towards' indicates that the event reached the endpoint. Therefore, I conclude that the sentence *yo corro hasta el lago* 'I run to the lake' is a telic event.

In order to know if other conditions affect the acquisition of verbal morphology in child L2 Spanish, I studied the following social variables:

5.3.1. Language exposure: There is a rational assumption that the more exposure one has to a second language the more correct it will be. In this study, we have a diverse group of children who have been instructed in Spanish for more than a year. By studying the language exposure, we are able to determine if language exposure plays an important role in the RI stage or not.

5.3.2. Language instruction: While some scholars think that teaching rules explicitly helps learners acquire a second language with greater proficiency, others think that this is not the case. Contrarily, other researchers think that implicit instruction guarantees the proficiency in the language without compromising meaning or use of the language. In this study, we test whether explicit or implicit instruction affects the acquisition of morphemes in child L2 Spanish.

5.3.3. Type of narrative: In this study, I examine how oral and written narrative might influence the performance of child L2 Spanish when acquiring verbal morphology. My hypothesis is that in oral narratives children pay less attention to form than in their written narratives because they have less planning time to focus on the form. My

expectation is that children produce more RIs in the oral production than in the written production.

5.3.4. Age: the age at which the children in this study started instruction in Spanish varies. Some began at the age of three and others much later.

5.3.5. Gender: This variable tests whether gender has effects on the acquisition of verbal morphology in Spanish.

In what follows, I report on the data gathered in this experiment and whether these social variables influence development of verbal morphology. I also interpret the results and compare them with the the semantic theories and the findings on the RI stage in L1 Spanish.

6. RESULTS

The results of this study are presented in three sections. First, the data presented describe the types and the relative frequencies of RIs found in the experiment. Next, I display the results for the Eventivity Constraint and the Modal Reference Effect (H&H, 1998). Finally, I provide evidence that supports the telicity hypothesis by G&C (2003). In the same section, I show the outcome when separating the RI predicates between transient and inherently telic verbs. At the end of this section, I discuss how social variables affect the RI stage of child L2 Spanish.

6.1. Root Infinitives

The results of the analysis are illustrated in the following tables. I coded 1,347 verbs. A total of 717 verbs were found to be RIs, and 630 were finite verbs. Table 7 displays the distribution in which these verbs appear with respect to finiteness.

Table 7. Distribution of total amount of verbs

Verb forms	Amount
Finite forms	630
RIs	717
Total verbs coded	1,347

Table 7 shows that child L2 Spanish utterances contain more RIs (717) than finite forms (630) at this stage of acquisition. Table 8 displays the types of RIs that were found in the data and the percentage of total RIs that each type represents.

Table 8. Types of Root Infinitives

ROOT INFINITIVE TYPES	Number of examples	% out of total RIs
Bare stems	326	45.47
Morphological infinitives	84	11.72
Overgeneralized 3SG past tense	200	27.66
Overgeneralized 2 nd person singular	43	5.95
OTHER	64	8.58
TOTAL	717	100

The results in Table 8 support the prediction that RIs are found in child L2 Spanish. Of the 717 total RIs, 326 were found as bare stems, 200 were overgeneralized 3SG past, and 84 verbs appear in a morphological form. These results are comparable with previous studies (Perez-Pereira; Bedore and Leonard 2001; 1989; P&G, 2007) who found the same three forms in child L1 Spanish. In this paper I suggest a new type of RI, the overgeneralized 2nd person singular (2SG), which occurred in the data 43 times. This form appears mainly in situations with first person singular. Example (22) shows examples of this form produced by an eight year-old who participated in the study.

Child	Expected in adult Spanish
(22) a. <i>Yo corres y corres.</i> I run (2 nd SG) and run (2 nd SG). 'I run and run.'	<i>Yo corro y corro.</i> I run and run.
b. <i>Yo caminas a mi casa.</i> I walk (2 nd SG) to my house. 'I walk to my house.'	<i>Yo camino a mi casa.</i> I walk to my house.

The "OTHER" row of Table 7 includes other types of mistakes such as 3rd person plural with singulars, and the subjunctive *venga* instead of indicative *viene*. For the calculations in this study, we have removed "OTHER." It would be interesting to study

these forms in a subsequent study. These forms can show another type of variability and add more information regarding the RI stage in child L2 Spanish. Three of the 653 verbs were not coded because their aspect was unclear and could not be classified. The revised total was 650 RIs after removing "OTHER" and three confusing verbs for aspect.

Thus, there are two representative errors produced by child L2 Spanish in RI stage: bare stems (45.47%) and overgeneralized 3SG past (27.89 %). However, morphological infinitives (11.72%) and overgeneralized 2SG indicative (6%) also account for the RIs in L2 Spanish. The findings of RIs (53%) in this study support P&G's (2007) hypothesis that RIs appear in null subject languages such as Spanish.

6.2. Eventivity Constraint

As expected, I found more RIs with eventives than statives. These results support the Eventivity Constraint (H&H, 1995). In Table 9 we see that from the total amount of RIs, 70.9% were eventives, and only 29.1% were statives. A chi square performed tells us that RIs appear significantly more often with eventives than statives ($p < .0001$). These results are very similar to the results found in the English data. Ud Deen (1997) found 75% of RIs in English were eventives and 25% were statives.

Table 9. Testing Eventivity Constraint

	Eventive		Stative		Total	
	N	%	N	%	N	%
RI	461	70.9	189	29.1	650	100
Not RI	357	56.67	273	43.33	630	100

When comparing the results in table 9, we see three things: i) out of all RIs (650), 70.9% were eventives and 29.1% were statives; ii) out of all non-RIs (630), 56.6% were

eventives and 43.3% were statives. iii) The *Eventivity Constraint* applies strongly to the RI forms in this study. In summary, there is a significant difference between the amount of eventives that appear as RIs compared to the eventives than appear with n Non-RIs. The same could be said for the amount of statives found as RIs compared to Non RIs.

Looking only at RI statives, we found that the children produced 120 bare stems, 36 overgeneralized 3SG past, 7 morphological infinitives, and 16 overgeneralized 2SG.

Table 10 presents the results by each RI form.

Table 10. Statives

Statives							
Bare stems		Overgeneralized 3Sg past tense		Morphological Infinitives		Ovegeneralized 2SG	
N	%	N	%	N	%	N	%
120	64%	36	20%	7	4%	16	12%

The examples in (23) illustrate RI statives produced by children ages seven to nine.

Child	Expected in adult Spanish
(23) a. <i>Yo gusta atraparla.</i> I like (Ø) to catch it. 'I like to catch it.'	<i>A mi me gusta atraparla.</i> Bare stem 'I like to catch it.'
b. <i>Yo pensó.</i> I thought. 3SG pret. 'It thought.'	<i>Yo pensé.</i> Overg. 3SG paste 'I thought.'
c. <i>Yo es feliz también.</i> I am-2SG ind.happy too. 'I am happy too.'	<i>Yo soy feliz también.</i> Overg.2SG indicative 'I am happy too.'
d. <i>Oler un perro.</i> I smell-INF a dog. 'I want to smell a dog.'	<i>Yo quiero oler un perro.</i> infinitive 'I want to smell a dog.'

The results reveal that bare stems and overgeneralized 3SG past tense are the two most common forms with statives. Morphological infinitives and overgeneralized 2SG indicative occur less frequently with statives.

Now let us turn to the eventives. A total of 461 eventives include transient and inherently specified verbs. The distribution is as follows: 204 bare stems, 153 overgeneralized 3SG past, 77 morphological infinitives, and 27 overgeneralized 2SG indicative, for a total of 461 RIs eventives. Table 11 presents the results of eventives by each RI form.

Table 11. Eventives

Bare stems		Overgeneralized 3Sg		Morphological Infinitives		Ovegeneralized 2SG	
N	%	N	%	N	%	N	%
204	44%	153	33%	77	17%	27	6%

See example (24) from a nine-year old from each form of RI eventives found in the data.

	Child	Expected in adult Spanish	
(24)	a. <i>Yo corre muy rápido</i> I run-INF very fast. 'I run very fast.'	<i>Yo corro muy rápido.</i> 'I run very fast.'	bare stems
	b. <i>Yo ir al otro lado.</i> I go-INF to the other side. 'I will go to the other side.'	<i>Yo iré al otro lado.</i> 'I will go to the other side.'	Morphological inf.
	c. <i>Yo miró en los árboles</i> I looked 3SG past in the trees. 'I looked in the trees.'	<i>Yo miré en los árboles</i> 'I looked in the trees.'	overg. 3SG past

d. Yo se miras con una mala cara. Lo miré con una mala cara. Overg 2SG
I cl. look 2SG ind. at us with a bad face. 'I looked at him with a bad face.'
'I looked at him with a bad face.'

A high number of eventives occur with bare stems and overgeneralized 3SG. Fewer eventives occurs with morphological infinitives and overgeneralized 2SG. Combined, bare stems and overgeneralized 3Sg past tense categories account for 357 (77%) of the 461 eventive RIs.

In sum, a majority of the eventive and stative RIs were produced with bare stems and overgeneralized 3SG past tense. This suggests that unmarked forms appear before marked forms in the development of verbal morphology. When looking at the frequency in which statives and eventives occurred, the data indicate that eventives occur more frequently as RIs than statives. These results support the Eventivity Constraint.

6.3. Modal Reference Effect with Morphological Infinitives

The results show that out of 84 morphological infinitives, 47 (56%) have a modal interpretation that refers to the future, a desire, or a need. The other 44% of morphological infinitives have a past or an ongoing reading. The interpretation of the morphological infinitives is based on discourse context. I took each sentence where the morphological infinitive appeared and analyzed it by the context in which it was produced. The examples in (25), which were found in the data, illustrate the *Modal Reference Effect*.

(25) Child Utterance	Modal Interpretation
a. <i>Yo ir del lago</i> I to go-INF from the lake. 'I want to leave the lake.'	Wish
b. <i>Yo correr en una cerca al pozo</i> I to run-INF in a fence close to the well. 'I need to run around the well.'	Need
c. <i>Yo ir al otro</i> I to go-INF to the other side. 'I will go to the other side.'	Future

On the other hand, the data also demonstrate that morphological infinitives in child L2 Spanish have also past interpretation. Refer to examples in (26) produced by a nine and ten years-old.

(26) Child utterance	Interpretation
a. <i>Un día yo ver una rana.</i> One day I see-INF a frog. 'One day I saw a frog.'	past
b. <i>Un día yo ir porque me gustan las ranas.</i> One day I go- INF because I like frogs. 'One day I went because I like frogs.'	past

As we see in the examples above, the morphological infinitives refer to actions that happen in the past. We can get this interpretation from the context. The temporal expression *un día* 'one day' is indicating that the action happened in the past. The results here propose that in Spanish the *Modal Reference Effect* is not as strong as in other languages, because morphological infinitives could have either an *irrealis* or *realis* interpretation.

6.4. Inherent Telicity versus Transient verbs

The results in Table 12 include the verbs that are inherently telic and atelic under the column "Inherent Aspect," and the verbs that are not inherently telic or atelic under the column "Transient."

Table 12 Relationship between RIs and Aspect

	Inherent Aspect Includes both inherently telic and atelic		Transient	
	N	%	N	%
RI	370	45	280	61.3
Not RI	452	55	177	38.7
Total	822	100	457	100

This table tells us that out of all the verbs that have inherent aspect (822), 55% are Not RIs and 45% are RIs. While does not seem to support G&C's (2003) hypothesis, the transient column supports their hypothesis to some extent. Out of 457 transient verbs, more than half (61.3%) appear as RIs. The chi square test tells us that the relationship between the two variables is significant ($p < .0001$). There are more transient verbs that appear with RIs as predicted by C&G's hypothesis.

6.4.1. Root Infinitives: In the following section, I will be looking only at the distribution of RIs with transient verbs and inherent (a) telic verbs.

A. Bare Stems: Table 13 shows the results of RIs with bare stems. There were 196 RIs found with inherent telicity. Breaking down this number, 67 are inherently telic and 129 inherently atelic. Transient verbs total 130.

Table 13 RIs with Bare Stems

	Inherent telic/atelic		Transient		Total	
	N	%	N	%	N	%
Bare stem	196	60.12	130	39.88	326	100

Examples of verbs with inherent telicity are given in (27) and with transient verbs in (28). Most of the examples in (27) involve errors with the verb *estar* 'to be' due to the high frequency of this form in the data.

	Child	Expected in adult Spanish
27)	<p>a. <i>Yo está en mal humor.</i> I be (stem + "a" thematic vowel) in a bad mood. 'I am in a bad mood.'</p> <p>b. <i>Yo está en un parque.</i> I be (stem + "a" thematic vowel) in the park. 'I am in the park.'</p> <p>c. <i>Yo está en el agua</i> I be (stem + "a" thematic vowel) in the water. 'I am in the water.'</p>	<p><i>Yo estoy de mal humor.</i> 'I am in a bad mood.'</p> <p><i>Yo estoy en el parque.</i> 'I am in the park.'</p> <p><i>Yo estoy en el agua.</i> 'I am in the water.'</p>
(28)	<p>a. <i>Yo limpia</i> I clean (stem + "a" thematic vowel) 'I clean.'</p> <p>b. <i>Y finalmente mira cosas.</i> And finally I watch (stem + "a" thematic vowel) things. 'And finally I watch things.'</p> <p>c. <i>Yo hace.</i> I make (stem + "e" thematic vowel) 'I make it.'</p> <p>d. <i>Yo me corre muy rápido</i> I run (stem + "e" thematic vowel) very fast. 'I run very fast.'</p>	<p><i>Yo limpio.</i> 'I clean.'</p> <p><i>Y finalmente miro las cosas.</i> 'And finally I watch things.'</p> <p><i>Yo lo hago.</i> 'I make it.'</p> <p><i>Yo corro muy rápido.</i> 'I run very fast.'</p>

Transient verbs in (28) do not have a definite complement that determines their telicity and that is why they appear as RIs.

B. Overgeneralized 3SG Past: Table 14 shows the distribution of 200 RIs produced with overgeneralized 3SG past by aspectual categories. The data show that out of 200 verbs, 85 are inherently telic, 47 are inherently atelic and 68 verbs are transient. Examples in (29) show utterances of inherently telic and atelic verbs.

Table 14. RIs with Overgeneralized 3SG Past

	Inherent telic/atelic		Transient		Total	
	N	%	N	%	N	%
Overg. 3SG past	132	66	68	34	200	100

Child	Expected in adult Spanish
(29) a. <i>Yo se cayó en el agua.</i> I fall. cl. 3SG past in the water 'I fell in the water.'	<i>Yo me caí en el agua.</i> 'I fell in the water.'
b. <i>Yo cayó en el pozo.</i> I fall 3SG past. in the well. 'I fell in the well.'	<i>Yo me caí en el pozo.</i> "I fell in the well."
c. <i>Pero atrapó mi perro.</i> But I catch 3SG past. my dog. "But I caught my dog."	<i>pero atrapé mi perro.</i> 'But I caught my dog.'
d. <i>Yo se atrapó al perro.</i> I Cl. catch 3SG the dog. 'I caught the dog.'	<i>Yo atrapé al perro.</i> 'I caught the dog.'
e. <i>Yo buscó entre árboles.</i> I look for 3SG past in between the trees. 'I looked for in the trees.'	<i>Yo busqué entre los árboles.</i> 'I looked for in the trees.'

While the results in this table partially support G&C's hypothesis, evidence for the inherent telicity hypothesis is shown in the examples in (30). The verbs in (30) are transient verbs that belong to the category of activities. These transient verbs need a complement or an adjunct to indicate whether the action is telic or atelic. As we see, the lack of a complement/adjunct does not denote a goal in the event; therefore they appear as atelic.

Child	Expected in adult Spanish
(30) a. <i>Yo miró.</i> I look 3SG past. 'I looked.'	<i>Yo miré</i> 'I looked.'
b. <i>Y caminó.</i> And I walk 3SG past 'And I walked.'	<i>Y yo caminé.</i> 'And I walked.'
c. <i>Yo nadó.</i> I swim 3SG past. 'I swam.'	<i>Yo nadé.</i> 'I swam.'
d. <i>Mi corrió.</i> I run 3SG past. 'I run'	<i>Yo corrí.</i> 'I run'
e. <i>Y se deslizó.</i> And I Cl. slide 3SG past. 'And I slided'	<i>Y me deslicé.</i> 'And I slided'

The transient verbs in (30) appear as RI in the discourse of L2 learners of Spanish. All of these verbs appear without DP and behave as atelic. These verbs are eventives and more specifically, activities that require a syntactic-semantic composition to derive telicity. While examples in (30) support the inherent telicity hypothesis that RIs should

appear more often with transient verbs, examples in (29) do not support it. The fact that we see RIs appear with both inherent (a) telic and transient verbs show that there is variability across data.

C. Morphological infinitives: Table 15 presents the results of inherent aspect versus transient regarding morphological infinitives. Morphological infinitives appear more frequently with transient verbs (68%) than with verbs that are inherently specified (32%). The chi square test tells us that the relationship between the two variables is significant ($p < .0001$). This result provides more evidence for C&G's hypothesis.

Table 15. RIs with Morphological Infinitives

	Inherent telic/atelic		Transient		Total	
	N	%	N	%	N	%
Infinitives	27	32	57	68	84	100

Consider the morphological infinitives in (31) with transient verbs and in (32) with verbs specified for telicity.

Child	Expected in adult Spanish
(31) a. <i>Mi perro jugar con.</i> My dog to play-INF with. 'with whom my dog play with.'	<i>con quien mi perro juega.</i> 'with whom my dog plays with.'
b. <i>Yo nadar en el árbol.</i> I to swim-INF in the tree. 'I swam in the tree.'	<i>Yo nadé en el árbol.</i> 'I swam in the tree.'
c. <i>Yo ir a todos los lugares.</i> I to go-INF to all places. 'I go to all places.'	<i>Yo voy a todos los lugares.</i> 'I go to all places.'

(32) a. *El sapo saltar a un árbol.*
 The frog to jump-INF in a tree.
 'The frog jumped in a tree.'

El sapo saltó a un árbol.
 'The frog jumped in a tree.'

b. *Yo atrapar el sapo.*
 I to catch-INF the frog.
 'I caught the frog.'

Yo atrapé el sapo
 'I caught the frog.'

The transient verbs in (31) appear as RIs and are manifested as atelic events. These results add more support to G&C's hypothesis. The verbs in (32) appear as inherent telic events. When analyzing the frequency in which each type of verb appeared as RI, the data show that there is a higher number of RIs that occur more often with transient than inherent (a) telic verbs (Refer to APPENDIX A).

D. Overgeneralized 2SG indicative: More than half (60.5%) of the overgeneralized 2SG indicative forms occur with are transient verbs as in table 16. Only 39.5 % of these RIs are inherently specified for telicity. Table 16 shows the results of RIs with overgeneralized 2SG indicative. There are a total of 43 verbs; 2 are inherently telic and 15 are inherently atelic (the list of inherently atelic consists mainly of verbs like *estar* 'to be').

Table 16. RIs with Overgeneralized 2SG Indicative

	Inherent telic/atelic		Transient		Total		
	N	N	%	N	%	N	%
Overgen 2SG	17		39.5	26	60.5	43	100

The chi square test tells us that the relationship between the two variables is significant ($p < .0001$). Thus, it seems that morphological infinitives and overgeneralized 2SG indicatives appear more often with transient verbs than with other types of verbs.

Examples of overgeneralized 2SG indicatives appear in (32) with transient verbs and in (33) with *estar* 'to be', an inherently atelic verb.

Child	Expected in adult Spanish
(32) a. <i>Yo caminas a casa.</i> I walk 2SG ind. to the house. 'I walk to my house.'	<i>Yo camine a mi casa.</i> 'I walked to my house.'
b. <i>Yo corres y corres.</i> I run (2 nd SG) and run (2 nd SG). 'I run and run.'	<i>Yo corrí y corrí.</i> 'I run and run.'
(33) a. <i>Yo estas en el agua.</i> I am 2SG, ind, in the water. 'I am in the water.'	<i>Yo estoy en el agua.</i> 'I am in the water.'
b. <i>Yo no estas feliz.</i> I am not 2SG. ind. happy. 'I am not happy.'	<i>Yo no estoy feliz.</i> 'I am not happy.'

The results in this section show correlation between finiteness morphology and transient verbs. Considering all transient verbs and all RIs, the data show that more than half of the transient verbs (61.3%) appeared as RIs in the children's discourse. By analyzing only transient verbs by the morphological form, the data show that bare overgeneralized 2SG indicative and morphological infinitives RIs support G&C's hypothesis since they occur more often with transient verbs. However, bare stems and overgeneralized 3SG past tense RIs do not support the hypothesis since they occur more often with (a) telic verbs than transient verbs. This discrepancy in the results can be explained by the variability of language across subjects. To some extent, the results in these tables also support G&C's hypothesis.

6.5 Effects of Social Variables

In this section, I look at the five variables (language instruction, language exposure, age, gender and type of narrative) that I predicted would affect the development of verbal morphology in child L2 Spanish. The data show that these variables do not predict the amount of RIs produced by child L2 Spanish.

6.5.1. Language Instruction: The results in table 17 show that 50.45% of the RIs found in the data were produced by children who received explicit instruction and 53.65% of were produced by children who received implicit instruction. The Chi square demonstrate that the difference between the two types of instruction is not significant ($p=.578$).

Therefore, I conclude that for these children, explicit instruction does not have an effect in the development of verbal morphology.

Table 17.Type of instruction

	% RIs
Explicit	50.45
Implicit	53.65

6.5.2. Language exposure: When analyzing the data, the Chi square shows that the relation between the years of exposure in Spanish and the development of verbal morphology is not significant by pearson correlation, ($p = .94$).

6.5.3. Age: The results in this social variable show that the pearson correlation is not significant ($p = .78$).

6.5.4. Gender: Consider Table 18, which presents the results that out of all RIs, 56.42% were produced by males; 49.41% were produced by females. The Chi square tell us that this is not a significant difference in the performance of females and males ($p= .24$)

Table 18. Gender

	% RIs
Male	56.42
female	49.41

6.5.5. Type of Narrative: The type of narrative produced by children (oral and written) was a significant predictor of the RI production in these children. There is a significant value in the type of narrative (oral vs. written) ($p < .0001$). In table 19, we observe that children produced more verbs in the oral task (694) than in the written task (586). Comparing the two tasks, we found more RIs in the written (54.27%) than in the oral task (47.84%).

Table 19. Oral and Written Production

	Oral		written	
	N	%	N	%
RI	332	47.84	318	54.27
Not RI	362	52.16	268	45.73
Total	694	100	586	100

The results in table 19 were unexpected but interesting. Children produce more RIs when performing the written than the oral task. The data suggest that in the oral task, children were more attentive to verbal morphology than when telling the story. As a result they produced more verbs with correct morphology.

In summary, from all the five variables, four of the variables (language instruction, language exposure, age, and gender) were not significant predictors of RI production among the child L2 Spanish speakers. The type of task was a predictor of the RI stage for these learners.

6.6 Summary

In the development of verbal morphology, the results suggest that child L2 Spanish learners go through a RI stage. These RIs surface in four forms: bare stems, overgeneralized 3SG past tense, morphological infinitives, and overgeneralized 2SG indicatives. In these data, we found a new form which was an overgeneralization. Notice that the overgeneralized 2SG indicative is a singular form. When looking at the other type of overgeneralization, 3SG past tense, which is another singular form, we can conclude that in the RI stage of child L2 Spanish, children produce overgeneralizations that occurred with singular forms.

Additionally, a strong predictor for the RIs in L2 speakers of Spanish is the *Eventivity Constraint*. A weaker predictor of RIs in L2 speakers of Spanish is the inherent telicity hypothesis. *The Modality Reference Event* and four of the social variables were not a strong influence for the RI stage in these learners. In the next chapter, I discuss the implications of the results presented here. The chapter is divided into seven sections; (1) natural development in the RI stage of child L2 Spanish; (2) L1 transfer; (3) Semantic Approach in child L2 Spanish; (4) the role of input; (5) Proposed stages of Morphological Development in child L2 Spanish; (6) Pedagogical Implications; and (7) conclusions.

7. DISCUSSION

This chapter consists of seven sections. Each section discusses different reasons that offer an explanation of the emergence of the RI phenomenon in child L2 Spanish in developmental stages. These stages represent the learner's continuing acquisition of accurate forms in Spanish verbal morphology.

7.1. Developmental Stages in RIs for child L2 Spanish

The results in this study suggest that children learning Spanish as a second language go through a developmental stage when acquiring verbal morphology. The indicators of this developmental stage are: i) there are similar patterns found in the RI stage of L1 and L2; ii) there is no evidence of transfer from L1 to L2; and iii) errors are not coming from the input because they receive accurate forms. Therefore, the rules that these children are forming in the RI stage come from developmental stage resource that progressively change towards reaching target-like forms.

As expected, based on the work of Dulay and Burt (1974), L2 Spanish acquisition mirrors L1 Spanish acquisition. The errors that L2 Spanish children produced during the RI stage exhibited similar patterns to the errors found in L1 Spanish. RIs occurred as bare stems, morphological infinitives, and overgeneralized 3SG past. A new RI form was found, which I refer to as overgeneralized 2SG indicative.

This new overgeneralization (2SG indicative) and the other overgeneralization (3SG past tense) can be grouped together in one category, Overgeneralizations. We can do this because they occur in the same environments. They always occur with 1SG. As children get more exposure to the language, they find different forms in the input and

overgeneralized them in specific contexts. In this way, the development of verbal morphology occurs. It is interesting to notice that in the first stages of the RI phenomenon, the forms that these learners utter are mainly singular forms. They used bare stems and overgeneralizations with high frequency, compared to the small percentages of morphological infinitives.

These findings add more support to the natural development of verbal morphology in child L2 Spanish. In the early stages of language acquisition, children select unmarked forms (bare stems) because it is the most natural form in the environment (Towel & Hawkins, 1994). It is also easier to acquire. As we discussed in Chapter 3, bare stems contained the least amount of morphemes in the morphology (verb stem + theme vowel). For this reason, this will be the first assumption in the child's grammar. Once children notice forms in the input, the overgeneralized forms (2SG indicative, 3SG past tense) will appear. The less natural forms (plurals) will appear later in the interlanguage of these learners. For these children, singular forms (bare stems, 2SG indicative, 3SG past tense) emerge early in language acquisition and plural forms tend to appear later. Assuming that in the acquisition of Spanish verbal morphology unmarked forms (singular) appear first and that marked forms (plural) appear later, one can say that children need positive evidence to acquire plural forms.

In summary, it was found that at the beginning of the stages, these learners produce mainly bare stems and morphological infinitives. Next, they pay more attention to the input and produce overgeneralizations, and finally they introduce plural forms in their interlanguage. Before they demonstrate a target-like form, children go through a stage during which there is variability in the interlanguage: sometimes children use plural

forms where there are required; sometimes they use singular forms instead of plural forms. With greater proficiency in the language, children will be able to attend to the morphemes that distinguish plural forms and singular forms. In section 7.5 I will present this proposal for further studies.

7.2. L1 transfer

A common reason for L2 errors is transfer; therefore, perhaps the children in this study produce RIs because of transfer from L1 English. Sometimes, the types of errors that children produce in a second language are due to transfer but other times they are not. One of the reasons L2 learners transfer is because they want to communicate. In order to do that, they use the knowledge they have in L1 and transfer it into L2 as a mechanism to understand the L2 and to be able to communicate. In this process, they pool sources that are available to them such as words, convention, structures, and cultural background to communicate. During the first period of SLA, learners need to transfer to be able to communicate in the language. As they become more proficient, this transferring mechanism diminishes.

However, if we compare the verbal morphology system of English and Spanish, we find that the former has a very uniform morphology system (except for 3SG present tense), whereas the latter has a distinctive verbal morphology. On one hand, the transfer theory assumes that learners will have more difficulty with the structures that are different, work in different ways, or do not exist in L2. On the other hand, learners will find it easier to learn the structures that are similar in their L1 and L2. Thus, L2 learners of Spanish will have difficulty in learning the verbal morphology because Spanish and

English have different verbal morphology structures. While Spanish has distinctive morphemes that inflect for person, number, tense, aspect and mood, English has only distinctive morphemes that inflect regular verbs in past tense and 3SG in indicative. This is one reason why learners will have to reset parameters related to verbal morphology in L2 Spanish.

Regarding the RI phenomenon in child L2 Spanish, it seems obvious that errors are not due to L1 transfer. Although, this was not the aim of this study, it is important to mention here that there is not transfer involved in the acquisition of verbal morphology. We know from previous studies that RIs occur in Spanish monolinguals. Then, for these L2 learners of Spanish the errors of verbal morphology cannot be due to transfer from English to Spanish. Some indicators that the phenomenon is not due to transfer are: i) the use of morphological infinitives (English has none); and ii) the overgeneralized 3SG past tense and 2SG indicative (English does not have these as distinctive forms). It has been observed that in terms of morpheme development, L1 Spanish learners go through the same developmental processes. This suggests that L2 learners of Spanish will go through an RI stage that will develop in a natural way through stages until they master the verbal morphology in Spanish.

Although it is true that not all knowledge is transferred from L1 to L2, it would be incorrect to claim that there is no transfer at all when learning a second language. In this study we found evidence of transfer other features. Children initially transfer the obligatory subject pronoun from English to Spanish. English and Spanish differ on this particular property. Spanish does not require an obligatory subject pronoun whereas English does. This type of transfer does not really affect the development of verbal

morphology by any means, but it helps these learners to get their message across. In this sense, transfer could play a very important role in some situations, and a minor role in others. In this study, transfer does not significantly affect the verbal morphology development L2 learners.

7.3. Semantic Approach in child L2 Spanish

The results of other studies (G&C, 2003; H&H, 1998) of RIs are consistent with the predictions made here. The RI forms found in this experiment with L2 Spanish children appeared primarily with eventives as expected based on the *Eventivity Constraint* of Hoekstra and Hyams (1995). Child L2 Spanish follows the same patterns for RIs as other languages (English, Dutch, and German). A high percentage of eventives (70.9%) surfaced as RIs compared to a much lower percentage of statives (29.1%).

The findings reveal that most of the eventive RIs (77%) occur with bare stems and overgeneralized 3SG past tense. A similar result was found with statives. Eighty-four percent (84%) of stative RIs appear with overgeneralized 3SG past and bare stems. For example, the verbs *pensó* 'he thought' and *trató* 'he tried' are both stative RIs that appeared commonly as overgeneralized 3SG in the study. The similarity between the L1 studies and this L2 study indicates that child L2 Spanish follows natural patterns in the process of language acquisition. In the development of verbal morphology, children select most frequently eventive predicates to appear as RI infinitives as opposed to stative predicates.

Using G&C's (2003) inherent aspect classification of verbs (inherently telic/atelic and transient), my study shows that L2 children produced more inherently telic/atelic

verbs (64%) than transient verbs (36%). When looking closely at the verbs in the data, many are specified for telicity such as *venir* 'to come', *chocar* 'to crash', *caer* 'to fall', *llegar* 'to arrive', *atrapar* 'to catch', *querer* 'to want', and *ser/estar* 'to be.' A minority of the verbs produced were transient, such as *hacer* 'to make/do', *limpiar* 'to clean', *ir* 'to go', *jugar* 'to play', *correr* 'to run', *pintar* 'to paint', *deslizar* 'to slide', and *ver* 'to see.' This raises the question of why L2 learners of Spanish produced more verbs specified for telicity than transient verbs in this study. Perhaps the text (*A Boy, a Dog and a Frog*, by Mercer Mayer) used to elicit data prompted more specified (a)telic verbs than transient verbs. An interesting subsequent study might examine the reasons that a majority of the verbs in this study were specifically telic/atelic rather than transient.

Let us now examine the results with transient verbs specifically. Of the 457 transient verbs 280 (61%) were found to be RIs. This follows the work of G&C (2003), which predicted a majority of transient verbs as root infinitives. Clear examples of the transient verbs found as RIs are: *limpiar* 'to clean', *caminar* 'to walk', *nadar* 'to swim,' or *correr* 'to run.' These verbs do not have inherent telic values. Their telicity is not something that belongs exclusively to the verb but to the whole predicate. However, L2 Spanish children tend to disregard this fact. Consider the utterance in example (35) produced by a nine year-old:

(35) *yo limpia* 'I clean' (stem + 'a' theme vowel)

In the sentence *yo limpia* 'I clean' the subject omitted not only the arguments (a measure DP) of the verbs that indicated whether the event was completed but also the right morpheme encoded in the same word to indicate temporality. *Limpia* 'clean' is a

transient verb that occurs as a RI in the form of a bare stem. According to G&C's hypothesis, transient verbs such as *limpia* 'clean' occur as RIs because they need a definite complement to specify telicity. The sentence *yo limpia* 'I clean' suggests that the nine year-old relies on the aspectual class of the verb *limpia* 'clean' and as a result the verb appears as an RI.

A counterexample for the prediction of transient verbs in the RI stage occurred when subjects used verbs such as *caer* 'to fall'. This verb is specified for telicity (inherently telic), and, therefore, is predicted to be finite according to C&G (2003). It is a punctual verb and should not appear as a RI, but it did. This verb occurred with high frequency (approximately 60 times) in the children's production and most of the time appeared as a RI. Although this is clearly a problem for the theory, it should be noted that the verb is irregular with a complex conjugation. This verb belongs to the second conjugation where the theme vowel is *-e-*. The verb *caer* 'to fall' gets inflected changing the verb stem. So, for example this verb in first person singular indicative drops the theme vowel *-e-* and take *-ig-* to create the proper form *caigo* 'I fall' inflected for tense, person and number. Therefore, we can conclude that in Spanish, irregular verbs such as *caer* 'to fall' have a complex inflection where stem formation changes.

In fact, Andersen (1991) suggests that *caer* 'to fall' will develop its inflection in stages. First, it appears as *cae* 'he/she falls' (3SG present indicative), then, *cayó* 'fell' (3SG past) and finally *caigo* 'I fall' (1SG present indicative). These stages make the complex conjugation of this verb easier to acquire for different reasons. First, *cae* could be a bare stem, which is a default form that is acquired naturally. Second, *cayó* 'fell' (3SG past) could be an overgeneralization. As we discussed above, overgeneralizations

indicate that learners precede the finite stage. Third, once learners produce forms like *caigo* 'I fall' (1SG present indicative), this indicates that he/she has abandoned the RI stage and is moving into the target-like stage. In this case, it shows that the complexity of conjugation and not the aspectual class is the reason why this particular verb appears as a RI. I suggest investigating the composition of this verb in future studies to discover if the appearance of this verb as a RI is in fact due to the complexity of conjugation or other factors.

When studying the type of predicates by aspectual class (transient vs. inherent (a)telic), we found that there is variability across data. We observed instances where the same predicate is both a RI and a finite form (Refer to Appendix A). However, we noticed that this free variation (RIs and finite forms alternating in the same environments) may be due to changes in the interlanguage. In other words, children are moving into a more elaborate and target-like grammar. For children who inflected the predicate correctly independent from the aspectual class, we conclude that they have implemented a new rule in their grammar. As a result they produce finite forms with both transient verbs and inherent (a)telic predicates. For those who did not inflect the predicates correctly, we see that aspect plays an important role. They choose transient verbs to appear mostly as RIs but sometimes transient verbs appear also as finite forms. The same happens with inherently (a)telic verbs. Most often verbs with inherent telicity (states and achievements) appear as finite forms but they can also appear as RIs. This indicates that in the children's grammar a new rule has been implemented and the new rule is competing with the rule that is already established. That is why we see these children producing RIs and finite forms in both environments with transient verbs and inherent

(a)telic verbs. They have different type of grammar for the same aspectual class, and they are choosing a particular environment to use it (Mitchell and Myles, 2004).

At the beginning of the RI stage, children choose morphological infinitives to appear mostly with transient verbs. As they move forward into the next developmental stage and their grammar becomes more proficient, they spread the correct rule to all predicates to appear as finite forms. In this study, the morphological infinitives that children produced (67%) appear with transient verbs as expected from G&C's (2003) hypothesis. When explaining the association of the morphological infinitives with the *Modal Reference Effect (MRE)*, we find that 56% of them have a modal interpretation, whereas the other 44% receive past or ongoing interpretations. This finding adds more support to Perales' study et al. (2006), who found that that in Spanish the *realis/irrealis* opposition has modal as well as past and present interpretations.

We observe that there is a correlation between the morphological infinitives and the transient verbs. For these learners, verbs like *ver* 'to see', *ir* 'to go', *jugar* 'to play', *correr* 'to run' or *caminar* 'to walk' have aspectual properties that make them appear as morphological infinitives. These verbs are transient verbs and show up as morphological infinitives because they require a syntactic composition that is not yet available (underspecified) for the children. These verbs check their telicity through semantic and syntactic features and these structures are more complex to acquire for children.

Another interesting observation, which was not part of the study, is the acquisition of the verbs *estar/ser*. In Spanish, we have two corresponding forms for the verb 'to be': *ser* and *estar*. Children in this experiment produced mainly singular forms of *estar* at this stage of acquisition. The data show that these learners first acquire the verb *ser* 'to be' in

the imperfective *era* and *estar* 'to be' as a bare form. This study found that the more proficient learners produce plural forms, *estabamos* 'we were,' *eramos* 'we were', as well as singular form *estaba* 'I was/ he was' in accurate contexts. This finding supports Andersen's Lexical Aspect Hypothesis, which states that the first sign of the imperfect appears with statives at the third stage. In the first two stages of development, statives appear in present tense. In these data, we observe cases where *estar* 'to be' occurs in the present tense such as *yo estoy* 'I am' or *la rana está* 'la frog is.' These two examples appear in the present tense with proper inflection. The high rate of bare stems with the verb *estar* 'to be' indicates that these verbal morphemes emerge as default morphemes which could also be misinterpreted as 3SG present tense.

This section shows that aspect and finiteness have a relationship. First, we found that children produce more RIs with eventives and that these eventives are transient verbs most of the time. Second, there is variability with respect to aspectual classification due to changes of the interlanguage among learners and complexity of inflection.

7.4 Role of Input

Children do not always copy what they hear in the input, but the input helps children to construct knowledge in their grammars. In this study, the data demonstrate that children go through different stages before they use the input productively. In the RI stage children use forms that appear in the input (finite forms) as well as forms that do not appear in the input (RIs).

My study suggests the presence of the overgeneralized 2SG indicative as a new RI. The frequency in which 2SG occurs in the input is one possible reason that this form

appears as an RI in L2 Spanish children. At the Missoula International School, teachers often talk to their students using verbal conjugation with the informal 2SG *tu* 'you' as opposed to the formal 2SG *usted* 'you' to ask for information, give instructions or follow a conversation (see example 36).

- (36) Teacher: ¿*Qué comes en tu casa para Acción de Gracias?*
 'What do you eat at your house for Thanksgiving?'
Student: *Yo comes pavo*
 'I eat-2SG turkey.'

As we see in example (36), some salient features in the input trigger the attention of these L2 learners of Spanish to use the overgeneralized 2SG indicative. These learners often times (not always) repeat what they hear from the input. In example (36) the teacher uses the verb *comes* 'you eat' in second person singular indicative as it is expected. The student uses the same verb *comes* 'you eat' as it comes from the input and uses it in his utterance to refer to himself. When he does the process of repeating, the result is an RI that occurs as a mismatch of the verb in 2SG indicative with the pronoun *yo* 'I' in first person singular. Thus the sentence that he is producing is *yo comes* 'I eat-2SG' instead of *yo como* 'I eat'. The form that this learner gets from the input *comes* 'I eat-2SG' exemplifies the awareness of new information that is not yet part of the interlanguage of this learner.

However, there are other cases where children produce forms that they do not hear from the input, for example, the occurrence of morphological infinitives as RIs. Since morphological infinitives are not forms that occur as the only verb in a sentence in adult Spanish, children will not hear an adult saying *comer* 'I eat-INF'. Rather, they will

hear an adult saying *quiero comer* 'I want to eat'. Children might focus on the final word *comer* 'to eat' because it is the lexical verb carrying the meaning of the sentence *quiero comer* 'I want to eat.' The verb *comer* 'to eat' is also more salient in the input due to the final position.

Thus, the occurrence of morphological infinitives as RIs in this study tells us that children form mental rules in their grammar. The allowance of infinitives as RIs is a type of mental rule and not an input rule. This mental rule causes the appearance of the morphological infinitives in these children. From the selection of all verbs found with morphological infinitives, the transient verb *ir* 'to go' was the most frequent verb, appearing 35 times out of 86 in the discourse. This verb also appeared as finite form. This variability suggests that children form mental rules first. As children get more proficient, they attend more to the forms that come from the input and start producing either overgeneralizations or finite forms. Therefore, children discover that there are other morphemes in the Spanish inflection, then the rule that is formed moves from being a developmental rule to an input-base rule.

This section suggests that the children start first with mental rules that do not come from the input, but once they are more aware of the input in the environment, this input helps learners move onto the next stage of verbal morphology development.

7.5. Proposed Stages of Morphological Development in Child L2 Spanish

Based on the results in this study, I argue that the acquisition of verbal morphology in L2 Spanish children occurs in three stages of development. In order for these children to move from one stage to another, they must build grammatical

representations that help them realize the finiteness of the verbs. During this acquisition process children learn that inflection gets attached to the stem of the verbs and that singular and plural forms are inflected differently in Spanish than English. The following are the proposed stages of verbal development in Child L2 Spanish.

1. **Pre-emergent stage:** At the beginning of this stage learners will produce some finite forms, but they primarily produce Root Infinitives. Of the RIs, most occur as bare stems rather than morphological infinitives. At the end of this stage, learners begin to use overgeneralizations. The presence of overgeneralization indicates that learners are moving into another stage of verbal development.
2. **Emergent Stage:** During this stage, learners start using overgeneralizations either in second person singular indicative or third person singular past tense. At the beginning of this stage, children use mostly overgeneralizations. The overgeneralization triggers the appearance of plural forms. An advanced learner at this stage produces overgeneralizations and plural forms. The verbal forms that learners produce will still show some agreement errors. The plurality feature triggers these learners to move out of this stage.
3. **Target-like Stage:** At the beginning of this stage, learners will show few agreement errors in the production of verbal inflection. They demonstrate a combination of plural and singular forms. At the end of this stage, learners show proper verbal inflection in both singular and plural forms.

The following are examples taken from this study that demonstrate the stages.

1. **Pre-emergent Stage:** Use of bare stems and morphological infinitives.

Example 1: This male participant was 9; 00 years old when he was interviewed. He had been at the Missoula International School for four years. This is an example of a written narrative he produced using the wordless picture book.

Yo 1. le ir a un río con mi perro. Yo 2. ve a un rana. Yo 3. dijo: yo 4. va a atrapa y 5. le ir corriendo a la rana. Yo 6. cae en el agua. Yo 7. está enojado de la rana. Yo 8. está buscando para mi perro. Y mi perro 9. está muy enojado. Yo 10. le ve el rana Yo 11. le atrapó mi perro. Yo 12. está gritando a la rana. Yo y mi perro 13. le ir a la casa. El rana 14. está triste. El rana 15. le ir a mi casa. Yo 16. le ir en el agua, 17. le ir en baño . El 18. sientto.

I 1. **to go (infinitive)** to a river with my dog. I 2. **see (bare stem)** a frog. I 3. **say-3SG past tense** , I 4. **go (bare stem)** to catch it and I 5. **to go (infinitive)** running behind the frog. I 6. **fall (bare stem)** in the wáter. I 7. **be (bare stem)** mad at the frog. I 8. **be (bare stem)** looking for my dog. And my dog 9. **be (bare stem)** mad. I 10. **see (bare stem)** the frog. I 11. **catch- 3SG past tense** my dog. I 12. **be(bare stem)** yelling to the frog. My dog and I 13. **to go (infinitive)** to the house. The frog 14. **is (bare stem)** sad. The frog 15. **to go (infinitive)** my house. I 16. **to go (infinitive)** in the water. I 17. **to go (infinitive)** to the bathroom. He 18. **sit.**

In the transcript above we observe that this learner is producing mainly morphological infinitives with the verb *ir* 'to go' (See examples 1, 5, 13, 15, 16 and 17). Bare stems also appear, such as *ve* 'see' in 2 and 10; *cae* in 6; *está* in 7, 8, 9, 12 and 14. There are two overgeneralizations in 3SG past tense. *Dijo* 'say'-3SG past tense in example 3 and *atrapó* 'catch'-3SG past tense in example 11. The verb in 14 is an ambiguous form that could be misinterpreted. The subject of this form is a third person singular (the frog) and the form that is used could be either a bare stem or actually the

proper inflection for third person singular. Since most of the forms that we observe here are RIs produced as morphological infinitives and bare stems, we can surmise that 'está' in 14 is a bare stem and not a finite form. Also, the fact that this learner produces two past tense overgeneralizations (*dijo* 'said' and *atrapó* 'caught') indicates that he is moving into the Emergent Stage.

Example 2: This female participant was 9;00 years old when she was interviewed. She had been at the school for two years. This example was taken from an oral narrative.

Un día, yo 1. va a atrapar sapos con mi perro, cuando 2. llegó yo 3. ve un grande sapo. Pero no 4. está muy feliz y 5. no ve un árbol que cae en frente del lago. Yo 6. cae en el lago con mi perro. Cuando yo 7. ve al sapo un otro tiempo y 8. trató a atrapar al sapo, el sapo 9. saltar a un árbol que cae. Yo 10. dijo un cosa a mi perro y nosotros 11. va a al sapo. Cuando yo 12. está muy cerca a la sapo yo 13. atrapar pero es mi perro que yo 14. atrapar. Yo 15. es muy malo y 16. decidí var a casa. El sapo 17. ve un poquito triste cuando yo 18. va a casa con mi perro. Y cuando yo 19. llegó a casa el sapo 20. va después de nosotros y 21. encontró yo y mi perro en el baño. Nosotros 22. ve el sapo y ello 23. ve nosotros en y nosotros 24. nadar en el baño y 25. está muy felices.

One day, I 1. go (bare stem) to catch frogs with my dog. When I 2. get- (3SG past tense) there, I 3. see (bare stem) a big frog but I 4. be (bare stem) not very happy. I do not 5. see (bare stem) a tree that was in front of the lake. I 6. fall (bare stem) in the lake with my dog. When I 7. see (bare stem) the frog another time, I 8. try (3SG past tense) to catch the frog. The frog 9. to jump (infinitive) to a fallen tree. I 10. say (3SG past tense) one thing to my dog and we 11. go (bare stem) to the frog. When I 12. be (bare stem) close to the frog, I 13. to catch (infinitive) but it was my dog that I 14. to catch (infinitive). I 15. be (bare stem) very bad and I 16. decided (finite form) to go home. The frog 17. look (bare stem) a little bit sad when I 18. go (bare stem) home with my dog. And when I 19. get (3SG past tense) home, the frog 20. go (bare stem) after us. And he 21. find (3SG past tense) me and my dog in the bathroom. We 22. see (bare stem) the frog and he 23. see (bare stem) us in. And we 24. to swim (infinitive) in the bath and we 25. be (bare stem) very happy.

In the interlanguage of this learner we see the use of morphological infinitives produced as RIs, such as in the examples 9 *saltar* 'to jump', 13 and 14 *atrapar* 'to catch',

and 24 *nadar* 'to swim'. We also find several bare stems in examples 1 *va* 'is going', 3, 5, 22 and 23 *ve* 'see' (verb stem *v* + 'e' theme vowel); 4, 12 and 25 *está* 'be' (verb *est* + 'a' theme vowel). In addition, some overgeneralizations in 3SG past tense occur, such as in 2 *llegó* 'get'- 3SG past tense, 8 *trató* 'try'- 3SG past tense, 10 *dijo* 'say'- 3SG past tense, 19 *llegó* 'get'- 3SG past tense, and 21 *encontró* 'find'- 3SG past tense. In the same data we observe the use of one finite form in example 16 *decidí* 'decide'- (1SG past tense). The use of overgeneralizations signals the transition into the Emergent Stage.

Emergent Stage: Use of overgeneralizations and plural forms.

Example 1: This is an example of a learner at the beginning of the Emergent Stage. This female subject was 11;00 years old at the time the data was gathered. She has been at the school two years. This is an oral transcript.

*Hoy yo 1. **decidió** ir con mi perro. Yo 2. **miró** y 3. **miró** y finalmente 4. **miró** un animal. Yo 5. **corre** rápido. Yo 6. **estás** en el agua un minuto mas luego. Mi perro y yo 7. **estás** en el agua directamente con el animal. El animal 8. **estás** un mano afuera de yo. Pero el minuto que 9. **trató** a ganar, el animal 10. **va** a otro lugar. Yo 11. **estás** muy malo con el animal. 12. **vas** a tratar otra vez. Pero este tiempo yo 13. **ganó** mi perrro y no el otro animal. Yo 14. **estás** muy, muy malo esta vez. 15. **Decidió** a va a mi casa. Yo 16. **caminó** en un mala moda (mood) Yo 17. **decidió** a van al agua. Este es cuando el animal 18. **va** en el agua con mi y mi perro. Yo 19. **está** muy feliz y este es que mi día va.*

Today I 1. **decide (3SG past tense)** to go with my dog. I 2. **see (3SG past tense)** and 3. **see (3SG past tense)** and finally 4. **see (3SG past tense)** an animal. I 5. **run (bare stem)** fast and a minute later, I 6. **be (2SG indicative)** in the water later. My dog and I 7. **be (2SG indicative)** in the water directly with the animal. The animal 8. **be (2SG indicative)** a hand outside me. But the minute that I 9. **try (3SG past tense)** to win, the animal 10. **go (bare stem)** to the another place. I 11. **be (2SG indicative)** very bad with the animal. I 12. **be going (2SG indicative)** to try another time. But this time, I 13. **win (3SG past tense)** my dog and not the other animal. I 14. **be (2SG indicative)** very, very bad this time. I 15. **decide (3SG past tense)** to go home. I 16. **walk (3SG past tense)** in a bad mood. I 17. **decide (3SG past tense)** go in the water. This is when the animal 18. **go**

(bare stem) in the water with my dog. I 19. **be (bare stem)** very happy and this how my day goes.

This student is producing mostly overgeneralizations with 2SG indicative and 3SG past tense. The overgeneralization in 2SG indicative are presented in examples with the stative verb *estar* 'to be', i.e., *estás* 'you are' in 6, 7, 8, 11, and with the verb *ir* 'to go', i.e., *vas* 'you are going' in example 12. Some bare stems are present in 10 and 18 with the verb *va* 'go'. The results in this transcript indicate that the interlanguage of this L2 learner of Spanish is at the beginning of the second stage.

Example 2: This female subject was 7;00 years old when she was interviewed.

She had been at the school for four years. The data presented in this example are from an oral transcript.

Una vez yo y mi perro 1. estaba buscando por una rana. Más tarde 2. encontramos un pozo con una rana! 3. estamos corriendo muy rápido, pero 4. caemos en el pozo. Allí 4. está la rana! La rana 5. estaba más rápido que yo. Yo 6. estaba enojada. Mi perro y yo 7. caminaban silenciosamente, y yo 8. cogió el perro. OOPS! Yo 9. burló del perro. Yo 10. estaba triste. 11. caminó a casa con mi perro. El sapo 12. quería ver me. El sapo 13. saltó en el pasto. La rana 14. saltó a mi casa. Finalmente, el sapo 15. llegó a mí.

One day, me and my dog 1. **were (3SG- imperfect)** looking for a frog. Later, we 2. **found (correct finite form)** a well with a frog. We 3. **are (correct finite form)** running very fast but we 4. **fall (correct finite form)** in the well. There is the frog! The frog 5. **was (correct finite form)** faster than me. I 6. **was (correct finite form)** upset. My dog and I 7. **walk- (third person plural (3PL))** quietly and I 8. **catch- (3SG past tense)** the dog. OOPS! I 9. **laugh- (3SG past tense)** at the dog. I 10. **was (correct finite form)** sad. I 11. **walk- (3SG past tense)** home with my dog. The frog 12. **wanted (correct finite form)** to see me. The frog 13. **jumped (correct finite form)** in the grass. The frog 14. **jumped (correct finite form)** in my house. Finally, the frog 15. **came (correct finite form)** to me.

The data above represent a learner that is at the end of the Emergent Stage. In her RI stage, she is using overgeneralizations, plural forms that still show disagreement and

some finite forms. The overgeneralizations are presented in examples (8) *cogió* 'caught' (9) *burló* 'laughed' and (11) *caminó* 'walked'. The use of plural forms is distributed between RI and finite forms. Some of the RIs that occur with plural forms can be seen in example (7) *caminaban* 'walked'. The finite forms in (2), (3) and (4) are plural forms that appear with null subjects. The fact that she is using first and third person plurals and few correct inflections indicate that she is beginning to move into the Target-like stage.

Target-like Stage: Use of singular and plural forms. Few or no errors in verbal agreement. This female learner was 11;00 years old at the time of the experiment. She had been at the school for six years. This is an oral transcript.

Un día yo y mi perro nos 1. fuimos a pescar. Nosotros 2. fuimos a un lago cerca a mi casa. 3. era un día maravilloso. 4. vimos un sapo y también 5. tratamos de atrapar al sapo. Pero yo 6. estaba corriendo tan rápido que 7. me cayó al suelo porque 8. estaba corriendo tan rápido. 9. me cae en el lago con mi cabeza primero y mi perro también 10. cayó en el lago. El sapo 11. no estaba muy feliz. Entonces él 12. trató de ir al otro lado del lago. Pero cuando yo 13. salí desde abajo del agua el sapo me 14. miró en los ojos y yo 15. traté de agarrar el sapo. El sapo 16. saltó muy alto y 17. corrió hasta un tronco. Después yo 18. ví a el sapo en el tronco y 19. traté de ir a atrapar el sapo otra vez. Yo 20. tenía mi objeto de agarrar sapos en mi mano y yo 21. fui en un lado del tronco y perro en el otro. Yo 22. tenía mi objeto de agarrar sapos y 23. traté de atrapar el sapo pero en vez de atrapar el sapo 24. atrapé a mi perro. Mi perro no 25. estaba muy feliz entonces yo 26. dejé nadar en el agua. El sapo 27. No estaba tan feliz. Después nosotros 28. decimos al sapo y 29. regresamos a la casa. Nosotros 30. estábamos muy seco nosotros 31. teníamos mucho agua en nuestros cuerpos y no 32. estábamos muy feliz. El sapo también 33. no estaba muy feliz y 34. traté de ir a nuestra casa con nosotros. Luego el sapo nos 35. encontrabamos en mi casa y nosotros 36. estábamos en el baño. El 37. estaba muy feliz al 38. vernos y también yo y mi perro. Nosotros 39. fuimos al baño para banarnos y 40. estábamos muy felices juntos.

One day I and my dog 1. went (correct finite form) to fish. We 2. went (correct finite form) to a lake close to my house. It 3. was (correct finite form) a wonderful day. We also 4. saw (correct finite form) a frog. We 5. tried (correct finite form) to catch the frog but I 6. was (correct finite form) running so fast that I 7. fall (3SG past tense) on the floor because I 8. was (correct finite form) running so fast. I 9. fall (correct finite

form) in the lake, head first and my dog also 10. fell (correct finite form) into the lake. The frog 11. was (correct finite form) not happy. Then, he 12. tried (correct finite form) to go to the other side of the lake but when I 13. left (correct finite form) from the bottom of the lake the frog 14. looked (correct finite form) at my eyes. I 15. tried (correct finite form) to catch the frog. The frog 16. jumped (correct finite form) very fast and 17. run (correct finite form) towards a trunk. After, I 18. saw (correct finite form) a frog in the trunk and I 19. tried (correct finite form) to go and catch the frog again. I 20. had (correct finite form) my object to catch frogs in my hand. I 21. went (correct finite form) to one side of the trunk and my dog to the other side. I 22. had (correct finite form) my object to catch frogs and 23. tried (correct finite form) to catch the frog but instead of catching the frog I 24. caught (correct finite form) my dog. My dog 25. was (correct finite form) not very happy, then I 26. stopped (correct finite form) swimming in the lake. The frog 27. was (correct finite form) not very happy. Then, we 28. said (correct finite form) good bye! And 29. went back (correct finite form) home. We 30. were (correct finite form) very dried (wet). We 31. had (correct finite form) a lot of water in our bodies and we 32. were (correct finite form) not very happy. The frog 33. was (correct finite form) not very happy either and 34. tried (correct finite form) to go home (correct finite form) in the bathroom. He 37. was (correct finite form) very happy to see us. My dog and I 38. were (correct finite form) happy too. We 39. went (correct finite form) to the bathroom to take a bath and we 40. were (correct finite form) very happy together.

The observations in this transcript show that this L2 learner is at the target-like stage where she is using both singular and plural forms. The forms appear well conjugated with the presence of tense-marking throughout the narrative. There is one RI that occurs as an overgeneralization of 3SG past tense. Example (7) shows the verb *cayó* 'he/she fell' as an RI. As mentioned, these types of verbs follow a developmental sequence of stages in their conjugation. Another important observation in this example is the fact that this learner is dropping subject pronouns. This indicates that she is aware that Spanish is a null subject language that does not require an obligatory subject pronoun.

In this study, age is not an important factor predicting the RI stage because the participants started learning Spanish at different ages. The exposure to the language varies from one year to six years of exposure. In addition, some of these participants

have been exposed to the language in Spanish countries, while others have not had that opportunity. These data have been interpreted to show that, as far as verbal morphology development in child L2 Spanish concerned, learners follow some patterns even though this differs from individual to individual.

7.6. Pedagogical Implications

Here I explore the pedagogical implications of this study. The first aspect I will discuss is the contrast between two major teaching approaches that have underlined an important debate in language learning. I refer to whether grammar rules should be taught using explicit or implicit instruction in the classroom setting. On one hand, explicit instruction teaches grammar rules in a very conscious way. Learners have to pay conscious attention to the form that is being taught in the classroom, memorize it and then produce it in meaningless contexts. This approach compromises fluency and there is not assurance that learners internalize the rules because most of the time, these rules stay in short term memory. Therefore, this is not conducive to natural proficiency in the language. On the other hand, implicit instruction attracts the attention of learners to the form without compromising the meaning. Learners get exposed to the grammar rules without compromising meaning or fluency. The rules presented in the classroom increase proficiency in the language. The pedagogy used in the classroom shifts the attention to linguistics forms, learners notice these forms, and they stay in long term memory (Doughty & Williams, 2004).

Some teachers will say that explicitly teaching verbal morphology assures that students will conjugate verbs accurately. Others say that teaching forms with implicit

instruction will produce the same results. In the research, the subjects were exposed to two different types of instruction. Some had received prior explicit instruction and others received implicit instruction (input enhancement) on verbal morphology. As we mentioned, the difference between the two is that the former method turns the attention of learners away from meaning (comprehension) because they have to focus on the form (accuracy) of the verbs when learning verbal morphology. With the latter method (implicit instruction), learners focus their attention to both the form (verbal inflection) and the meaning without compromising either of them. What is expected is that children who received explicit instruction will produce the accurate verb conjugation in the task. Surprisingly, they did not do it. Both groups, implicitly and explicitly taught, performed almost equally as well.

However, from the observations capturing during the experiment, learners who were exposed to explicit instruction expressed frustration when they could not retrieve the rule. This slowed their fluency in the oral task. Controversially, learners who received implicit instruction were more spontaneous, expressive and fluent in the oral task. Although children who received implicit instruction did not perform better than the other group, we see that input enhancement, a type of implicit instruction, has positive effects on the learners regarding the acquisition of verbal morphology. Similar results were found in studies done in French immersion schools and intensive English programs in Canada where input enhancement was positive in the development of language proficiency (Sharwood Smith, 1993; White, Spada, Lightbown, & Ranta 1991).

One interpretation of the results of this study is that explicit instruction raises awareness of forms but does not guarantee that children will use the forms spontaneously

and accurately. Thus, it is important to select attention-enhancing activities and develop strategies to activate learners' knowledge (Swain, 1985). Not all of the information they hear is going to be selected in short term memory. Listeners select only information that is necessary and match it with long-term memory to finally store it and get the meaning of what is heard. Our work as teachers is to make sure that we increase the salience of forms in verbal inflection. Thus, students will notice those forms and move through the stages of development.

These findings suggest that L2 learners of Spanish go through a natural process of language acquisition when learning verbal morphology. As a result, explicit instruction does not seem to influence the development of verbal morphology. Apparently, although implicit instruction does not seem to influence the stages of development, we observe that implicit instruction does not compromise the fluency of these learners. According to Schmidt (1990) "the acquisition of language by young children occurs incidentally as a by-product of communication without deliberate intention to learn language for the purpose of mastering it."

The next pedagogical implication is related to the effects that different tasks (oral vs. written) have on the performance of learners. Something unexpected in this study was that children inflected verbs properly more frequently in the oral task than the written task. The assumption had been that learners would pay more attention to form in the written task because they could dedicate more time to the grammatical form. The percentage of RIs (54%) in the written task suggests that learners' perception of the task might change the results.

Learners in this study were more engaged in the oral task than in the written. This is demonstrated in the length and the amount of verbs produced in the oral narratives. They produced 694 verbs in the oral task compared to 586 verbs in the written task. This suggests that the oral task facilitates more accurate production due to comfort and motivation that learners have in the task. Additionally, one can say that finiteness varies according to the task that is performed by learners.

I conclude in this section that regardless the type of instruction, children make mistakes when acquiring verbal morphology in Spanish because they must go through natural stages of development. However, focus on form and meaning at the same time will help learners move out of the RI stage. In addition, the type of task in which data is gathered affects the performance of learners' language.

7.7. Conclusion

Children learning Spanish as a second language go through a root infinitive stage just as monolingual speakers of Spanish. This contradicts the results found in previous studies including Wexler (1995), Torren (1992) and Guasti (1994). These studies concluded that the RI phenomenon is not present in L1 Spanish because it is a null subject language. Here, I conclude that even with cross-linguistic differences, there are some patterns that all languages follow. I refer to the Root Infinitive phenomenon. This phenomenon does happen with both a null subject language like Spanish and also a non-null subject language like English.

As we expected, different forms appear during the RI stage in Spanish as compared to other languages. In English, the bare stem is known as the RI, and in Dutch

morphological infinitives are RIs. As Spanish is concerned, RIs occur as bare stems, overgeneralizations and morphological infinitives. These errors will be expected to occur more often with transient eventives than other types of verbs. With regard to morphological infinitives in Spanish, they receive not only modal interpretation but also past and present interpretation. Thus, RIs should be interpreted differently according to the typology of the language that discards uniformity of morphology.

There is ample space for more research on the RI phenomenon in L2 Spanish, especially considering the inherently telic verb *caer* 'to fall' in the acquisition of verbal morphology in L2 Spanish. This verb showed special results in these data. The verb *caer* 'to fall,' which was not expected to occur as a RI, appeared as a RI with high frequency. The fact that this verb appears mostly as overgeneralization in the past tense suggest that perhaps irregular verbs follow a particular development in the acquisition of inflection.

This study also suggests that further research is needed in the developmental stages of verbal morphology in child L2 Spanish. The RI forms that these children produced were not a product of L1 transfer or the input, but due to a natural process of language development. These results are comparable with monolingual children acquiring Spanish as their L1. Also children do not jump directly from a RI stage to a finite stage. Rather, L2 children of Spanish use RIs alongside finite forms for a while and then develop more completely into a finite stage.

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APPENDIX A

CLASSIFICATION OF SPANISH VERBS
ACCORDING TO THEIR ASPECTUAL CLASS

The classification of verbs in this appendix is based on the test by Andersen and Shirai (1995). These all of the verbs found in this data, * indicates the high frequency of this verb for L2 learners of Spanish.

VERB	ASPECTUAL CLASS	ROOT INFINITIVE
Llegar (to arrive)	Achievement	RI
Agarrar (to grab)	Achievement	Both : RI—yo se agarró El sapo trata de agarrar
Buscar (to look for)	Achievement	No
Entrar (to come in)	Achievement	No
*Caer (to fall)	Achievement	Both RI: bare stems and 3SG past tense
Decir (to say)	Achievement	Both: dijo in 1 st and 3 rd
*Saltar (to jump)	Achievement	Both RI: 3SG past tense Morphological infinitive
Atrapar (to catch)atrs	Achievement	Both RI: morphological infinitive
Escoger (to choose)	Achievement	1 RI bare stem , non RI in context with another verb : <i>yo voy al lago para escoger</i>
Usar (to use)	Achievement	Both: bare stem
Ganar (to win)	Achievement	Both RI: 3SG past tense
Encontrar (to find)	Achievement	Both: RI: 3SG past tense
Pescar (to fish)	Achievement	Both: RI: 3SG past tense
Esconder (to hide)	Achievement	NO
Venir (to come)	Achievement	Both
Regresar (to come back)	Achievement	Both 1RI: 3SG past tense
Chocar (to crash)	Achievement	NO
Dejar (to leave)	Achievement	Both 1RI: 3SG plural
Sentar (to sit)	Achievement	NO

Terminar (to finish)	Achievement	Both: RI: bare stem
Brincar (to jump)	Achievement	NO
Subir (to climb)	Achievement	NO

VERB	ASPECTUAL CLASS	ROOT INFINITIVE
Querer (to want)	State	NO: imperfect forms
Ser/estar (to be)	State	Both RI: bare stems and 2sg indicative a lot of imperfect forms: estaba
Pensar (to think)	State	Both: RI: 3SG past tense
Decider (to decide)	State	Both RI: 3SG past tense
Tratar (to try)	State	RI: bare stem, 3SG past tense
Tener (to have)	State	Both: RI: bare stem
Empezar (to begin)	State	Both RI: 3SG past tense
Necesitar (to need)	State	Both RI: bare stem
Poder (can)	State	Both RI: bare stem
Gustar (to like)	State	NO
Saber (to know)	State	NO
Oler (to smell)	State	RI: morphological infinitive
Sentir (to feel)	State	NO
Gritar (to yell)	State	Both RI: bare stem
Quedar (to stay)	state	RI: 3SG past tense
Sonreir (to smile)	state	NO
Llamarse (to be called)	state	NO
Hablar (to speak)	Activity	Both RI; bare stem
Vivir (to live)	Activity	Both RI; bare stem
Mover (to move)	Activity	NO
Empujar (to push)	Activity	RI: 2SG indicative
Pelear (to fight)	Activity	NO

Seguir (to follow)	Activity	RI: 1SG past tense
Abrir (to open)	Activity	NO
Esperar (to wait)	Activity	NO
Caminar	Activity	Both RI: 3SG past tense Bare stems 2SG indicative

VERB	ASPECTUAL CLASS	ROOT INFINITIVE
Limpiar el perro (to clean the dog)	Accomplishment	NO
*Ver una rana (to see)	Accomplishment	Both RI: bare stem and 3SG past tense and morphological infinitives
Poner los pies en el agua (to put)	Accomplishment	RI: 3SG past tense Bare stem
Jugar con mi perro (to play)	Accomplishment	Both RI: morphological infinitive
Nadar al lago (to swim)	Accomplishment	Both RI: morphological infinitive 3SG past tense
*Ir al lago (to go)	Accomplishment	Both RI: morphological infinitives 3SG past tense
Correr (to run)	Accomplishment	RI: Morphological infinitive 2SG indicative Bare stem
Hacer (to make/do)	Accomplishment	RI: Bare stems
Atacar (to attack)	Accomplishment	RI: morphological infinitive
Pintar (to paint)	Accomplishment	NO
Salir (to leave)	Accomplishment	Both RI: 3SG past tense
Lanzar (to throw)	Accomplishment	Both RI: bare stems
Deslizar (to slide)	Accomplishment	Both RI: 3SG past tense

APPENDIX B: CODING CHART

The following is a description of how the data was coded in this study. Below there is an example of an oral narrative from a female subject in this experiment.

S: subject

V: Verb

1. RI

0= no

1= yes

2. 3rd PSG /bare stem

0= no

1= yes

3. Morphological infinitives

0= no

1= yes

4. Overgeneralization 3rd PSG past tense

0= no

1= yes

5. 2nd PSG

0= no

1= yes

6. Person/number

11= yo

12= tu

13= el/ella

14= nosotros/nosotras

15= vos

16= ellos/ellas

17= usted

18= ustedes

19= uno-una

7. TMA

- 11= present indicative--- canto
- 12= preterite indicative--- cante
- 13= imperfect indicative--- cantaba, estaba cantando
- 14= periphrastic future--- voy a cantar
- 15= future indicative---- cantare
- 16= conditional---- cantaria
- 17= present subjunctive---- cante
- 18= past subjunctive----- cantara
- 19= imperative---- cante, salga, hable
- 20= perfective indicative----= he cantado
- 21= perfect subjunctive----- hubiera cantado

8. Aspectual Categories: Telicity (reach a natural end point or not)

- 0= inherently specified telic (achievement)
- 1= inherently specified atelic (states)
- 2= transient verb (change their telicity by varying the semantics of their arguments on the quantized/non-quantized dimension). (Activity and accomplishments)

9. Eventives and Statives

- 0= punctual
- 1= non-punctual
- 2= statives

10. Aktionsart (a kind of action)

- 0= eventive (activity, accomplishment or achievement)
- 1=statives

11. type of instruction

- 0= explicit
- 1= implicit

12. Amount of Spanish

Time that children have been at the school

13. Type of narrative

- 0= oral
- 1= written

14. Sex

0= male

1= female

Example of a subject's coding in this study

S	verb	1 RI	2 3S G	3 M I	4 OV 3	5 OV 2	6 P/ N	7 TM A	8 I/T	9 A S	1 0 A	1 1 I	1 2 Y	1 3 N	1 4 S
1	encontramos un pozo	0	0	0	0	0	14	13	0	0	7	1	4	1	1
1	estamos corriendo	0	0	0	0	0	14	11	2	0	7	1	4	1	1
1	Está la rana	0	0	0	0	0	13	11	1	1	7	1	4	1	1
1	yo caminaba	0	0	0	0	0	11	13	2	0	7	1	4	1	1
1	yo cogió el perro	1	0	0	1	0	11	12	1	0	7	1	4	1	1
1	caminó a casa con mi perro	1	0	0	1	0	11	12	2	0	7	1	4	1	1
1	el sapo se quería ver	0	0	0	0	0	13	13	1	1	7	1	4	1	1
1	el sapo saltó en el pasto	0	0	0	0	0	13	12	0	0	7	1	4	1	1
1	la rana saltó a mi casa	0	0	0	0	0	13	12	0	0	7	1	4	1	1
1	el sapo llegó a mi	0	0	0	0		13	12	0	0	7	1	4	1	1