Liceras, J.M. and R. Fernández Fuertes. 2021. On the nature of crosslinguistic influence: root infinitives revisited. In Avram, L., A. Sevcenco and V. Tomescu (eds.). L1 Acquisition and L2 Learning. John Benjamins. https://benjamins.com/catalog/lald.65.08lic

On the nature of crosslinguistic influence: Root infinitives revisited

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Root Infinitives (RI) in Spanish have an infinitival marker, while in English they are bare forms. For languages like English, the RI stage has been said to be longer and to have a higher incidence than in Spanish. Within Liceras, Bel and Perales' (2006) typology of an RI universal stage, Spanish is a [+Person (P), +Infinitival marker (R)] language while English is [–P, –R]. Our analysis of the English and Spanish RIs produced by English-Spanish bilingual children and English and Spanish monolingual children reveals no interfering influence from English into Spanish and no positive influence from

Spanish into English, which suggests that the degree of lexical transparency of the [+P, +R] features of Spanish *is not* strong enough to trigger acceleration in overcoming the bilingual English RI stage.

Keywords: bare forms, infinitival markers, RI universal stage, lexical transparency, abstract features, L1-2L1 acquisition

1. Introduction

Root Infinitives (RIs), as in (1), have been extensively discussed in acquisition research and have been defined as default verb forms which young children use in root clauses (Phillips, 1995; Rizzi, 1993/1994).

(1) a. nik ekarri [Child Basque]
I-ERG carry-INF
(Austin, 2009)

b. sortir [Child Catalan]
come out- INF
(Bel, 2001)

c. Ikke kore tractor [Child Danish]
not drive-INF tractor
(Hamann & Plunkett, 1998)

d. Papa schoenen wassen [Child Dutch]

Daddy shoes wash-INF

(Weverink, 1989)

e. Eve sit**(Ø)** floor [Child English]

(Hoekstra & Hyams, 1998)

f. Michel dormir [Child French]

Michel sleep-INF

(Pierce, 1992)

g. Thorsten das haben [Child German]

Thorstn that have-INF

(Poeppel & Wexler, 1993)

h. Lashevet al ha-shulxan [Child Hebrew]

sit-INF on the table

(Schaeffer & Ben Shalom, 2004)

i. Molochko korovka delat [Child Russian]

milk cow make-INF

(Gagarina, 2002)

j. Yo poner entonces [Child Spanish]

I put-INF then

(Liceras, Fernández Fuertes & Pérez Tattam, 2008)

k. Jag ocksa hoppa där a där [Child Swedish]

I also hop-INF there and there

(Santelman, 1995)

Differences among RIs across languages show that, while some languages have a distinct infinitival marker, as in Italian and Spanish, other languages have an infinitival marker but it is not distinct, as in German and Dutch, where the form coincides with the third person plural of the present tense, and in French, where it is pronounced like the participle. Also, there are languages like English that show no marker at all. Moreover, for languages like English, the RI stage has been said to be longer and to have a higher incidence than that in Spanish (e.g., Bel, 1998, 2001; Guasti, 1994; Hoekstra & Hyams, 1998; Hyams, 1994, 2001, 2006; Radford, 1990; Rizzi, 1994; Schütze & Wexler, 1996; Torrens, 1995; Wexler, 1994, 1998; among others).

In order to capture these crosslinguistic differences, Liceras, Bel & Perales (2006) proposed a typology of an RI universal stage defined as a combination of two features: [±P] (person) and [±R] (distinct infinitival marker) which capture both the different RI forms as well as the different RI stage lengths across several languages.[1] We would like to investigate whether the lexical transparency of these two features can be correlated, in terms of crosslinguistic influence, to the two types of Spanish subjects, the overt pronoun and the person marker verbal affix, highlighted in (2), as well as to the two types of Spanish copulas (*ser* and *estar*) in (3).

[1] Needless to say, this hierarchy was not intended to capture all possible infinitival forms available in natural languages, not even to be a representation of different language families, as it was meant to provide a formal framework to account for the RI stage differences attested. In fact, we have added other languages, among them, Brazilian Portuguese, Danish, Hebrew, Norwegian, Romanian, Russian, Swedish and Tamil (see section 2.1. below).

(2) **Nosotros/Ø** vivi**mos**[1st-p-p] en un barrio muy bonito

'We/Ø live in a very nice neighborhood'

(3) a. Nuestro barrio es muy bonito

'Our neighborhood is-ser very nice'

b. Nuestro barrio está cerca de la estación

'Our neighborhood is-estar near the station'

In fact, in a study dealing with subject omission/production (Liceras & Fernández Fuertes, 2019), in one dealing with copula omission/production (Fernández Fuertes & Liceras, 2010), and in another one dealing with both subject omission/production and copula omission/production (Liceras, Fernández Fuertes & Alba de la Fuente, 2012), Spanish is argued to play a facilitating role by triggering the adult grammar overt subject/copula requirement in bilingual English sooner than it would be the norm in monolinguals, an acceleration effect that the authors attribute to facilitating crosslinguistic influence from Spanish.

In the spirit of Fernández Fuertes & Liceras' (2010), Liceras, Fernández Fuertes & Alba de la Fuente's (2012) and Liceras & Fernández Fuertes' (2019) proposals, and taking as a point of reference the typology of an RI universal stage in child language proposed by Liceras, Bel & Perales (2006), in this paper we investigate whether crosslinguistic influence occurs between Spanish and English in the case of RIs, two languages which display a different realization of the [P] and the [R] features (Spanish is [+P,+R] while English is [–P, –R]); in fact, they are in the opposite extremes

of the continuum (see Table 2 and subsequent discussion). We hypothesize that crosslinguistic influence from English into Spanish triggering delay is not expected, but crosslinguistic influence from Spanish into English having an acceleration effect is, because the Spanish [+P, +R] combination is more lexically transparent, and also because in Spanish the projection of the adult grammar in this domain occurs sooner than in English (Legate & Yang, 2007; Rice, Wexler & Hershberger, 1998; Rice, Wexler & Redmond, 1999).

In order to test these hypotheses, we have analyzed the English and the Spanish RIs produced by two English-Spanish bilingual children (from the FerFuLice corpus in CHILDES, MacWhinney, 2000) as compared to those produced by two English monolingual children (from the Sachs and Suppes corpora in CHILDES) and two Spanish monolingual children (from the Ornat and Aguirre corpora in CHILDES).[2] This analysis allows us to contribute to the discussion on the role of crosslinguistic influence (CLI) in the early stages of simultaneous bilingual (2L1) acquisition in terms of both the nature and the directionality of the influence. Austin (2009) investigated the production of RIs by Basque-Spanish bilingual and Basque monolingual children and found that some of the bilingual children produced more RIs than the monolingual children did, a difference that she attributes to the

[2] In Liceras & Fernández Fuertes (2019), which is concerned with crosslinguistic influence between English and Spanish and the role of lexical transparency inherent to the double set of subject pronominal markers in Spanish (the verbal personal affixes and the explicit pronouns) but not in English, we also analyze data from four of the six children included here. However, the data selection from the four children does not exactly coincide with the one we use here (this is seen both in the age rage and in the total number of cases).

different patterns of exposure to Basque, rather than to crosslinguistic influence from Spanish. To the best of our knowledge, our investigating the possible relationship between crosslinguistic influence and RIs represents a novel contribution, not only because this relationship has not been investigated in the case of English and Spanish, but also because of the linguistic framework: the RI typology and the abstract features [±P] and [±R]).

2. RIs in child language

2.1. The RI stage

The RI stage has been conceptualized as a grammatical stage in child language development, characterized by the optional presence of RIs (Phillips, 1995; Hoekstra & Hyams, 1995; Hyams, 1994, 1996; Rizzi, 1994; Wexler 1994). However, not all the forms analyzed as RIs are similar, since RIs in Spanish have an infinitival marker ([+R] in *Yo pone-R 'I put-infinitive'*), while RIs in English are bare forms (*Eve sit(Ø)*).

There are also important differences with respect to the duration of the RI stage and to the incidence of these forms. For languages like English, the RI stage has been argued to be longer and to have a higher incidence than that in Spanish (e.g., Bel, 2001; Grinstead, 1994; Guasti, 1994; Hoekstra & Hyams, 1995, 1998; Hyams 1994, 2001; Radford, 1990; Rizzi, 1994; Schütze & Wexler, 1996; Wexler, 1994, 1998). As for the actual

presence of RIs, the difference between [+null subject] languages and [–null subject] languages is rather significant, as Table 1 shows.

Table 1: RIs in child grammars

NSP	language	Study	age range	RI range
[-null subject]	Dutch	Weverink (1989), Haegeman (1994)	1;08 – 3;01	16% – 36%
	English	Hoekstra & Hyams (1998)	1;06 – 3;00	75% – 81%
	French	Pierce (1992)	1;08 – 2;06	20% – 49%
	German	Weissenborn (1991) in Guasti (1994)	2;01 – 2;02	40% – 46%
	Swedish	Platzack (1992) in Guasti (1994)	1;08 – 2;02	38% – 61%
[+null subject]	Catalan	Torrens (1992)	1;11 – 2;06	3%
	Hebrew	Schaeffer & Ben Shalom (2004)	1;09 – 3;01	0% – 5%
	Italian	Guasti (1994), Schaeffer (1990)	1;07 – 2;06	0% – 16%
	Japanese	Sano (1995)	2;04 – 2;10	8% – 10%
	Spanish	Grinstead (1994)	1;07 – 2;08	5% – 12%

[Adapted from Hoekstra & Hyams (1998) and Schaeffer & Ben Shalom (2004)]

In fact, the low percentage of RIs produced by children acquiring [+null subject] languages led researchers to propose that there was no RI stage in these languages (Guasti, 1994) and to actually attempt to provide a principled account of this crosslinguistic difference (see Rizzi, 1993/1994, 1994; Wexler 1994, 1998). Other authors (Aguado-Orea, 2004;

Ezeizabarrena, 1997; Tsimpli, 1992; Serrat & Aparici, 1999) suggest that there is a stage characterized by the optional occurrence of the third person singular indicative, as in (4), which instantiates the form unspecified for agreement features in languages such as Spanish, as it lacks inflection but for the thematic vowel of the verb. In Spanish, this form is homophonous with the second person singular imperative.

(4) habl-a-(Ø) / com-e-(Ø) / viv-e-(Ø)
talks / eats / lives

Grinstead (1998, 2016) specifically argues that the Catalan and Spanish third person singular indicative in (4), rather than the infinitival form in (5), can be considered the equivalent of RIs in null subject languages.

(5) habl-a-R / com-e-R / viv-i-R
to talk / to eat / to live

Salustri and Hyams (2006a) have claimed that it is the Italian imperative that should be taken as the RI analogue. Thus, according to these proposals, a "default or unmarked form" would realize the RI stage in these languages (Perales, Liceras & Bel, 2006).

Liceras, Bel and Perales (2006) argued against RI analogues (imperative and third person indicative) on two different grounds: first, because they do not account for the optional nature of RIs and, second, because they do not account for the fact that only certain types of verbs appear in the nonfinite form. These authors' main argument was that those proposals do not take into consideration the *modal* interpretations that RIs

have or the fact that RIs (but for English bare form) are restricted to verbs referring to events, what have been referred to as the *Modal Reference Effect* and the *Eventivity Constraint,* respectively (Hyams, 2007). They use data from the acquisition of Spanish and the acquisition of Catalan to argue that neither the 'bare' form representing the present nor the imperative second person singular represented by the same lexical form qualify as RI analogues. Their argumentation is based on the fact that those 'bare' forms in both Catalan and Spanish (Bel, 1998) overwhelmingly have temporal reference (a *realis* value) as actual third person singular present indicative forms have in the adult language.

As for Salustri and Hyams' (2003, 2006a, 2006b) proposal, Liceras, Bel and Perales (2006) argue that in spite of the fact that Spanish and Catalan children produce a substantial number of imperative forms, as Italian children do, this high production continues long after they have acquired tensed forms (past, present and future). This is not what happens with RIs in [+null-subject] languages. Further evidence against this proposed imperative RI analogue comes from the fact that the referential properties of RIs, as non-personal forms, may refer to any person (e.g., Bel, 2001 indicates that most of the RIs she found in her data referred to first or third persons). Imperatives, on the other hand, are only second person singular. Another piece of evidence against the imperative analogue is provided by the fact that RIs, despite being tenseless forms, may refer to various times while imperative forms, which are also tenseless, invariably

refer to the speech time. Finally, and this constitutes a very important difference, imperatives, unlike RIs, are fully grammatical both in child and adult grammars. We do not think that the fact that children produce more imperatives than adults can be taken as an argument for considering the imperative an RI analogue, as children also use the third person singular form more often than adults (Aguado-Orea, 2004; Grinstead, 1998; Salustri & Hyams, 2003; among others) but, as we have argued before, this does not mean that this form is an RI analogue.

2.2. A typology of an RI universal stage

In line with the assumption that the RI stage represents a universal phenomenon and given the fact that, in spite of the low frequency of RIs in null subject languages, they are consistent across children and across languages, authors such as Hoekstra and Hyams (1995) attempted to define an RI stage for null subject languages. They proposed that Tense is a means of connecting the structural temporal meaning into the discourse and that the relation between discourse (CP) and Tense is encoded by different elements across languages: Person morphology in Spanish and Italian, Number morphology in Dutch and English, and Tense morphology in languages like Japanese. For these authors, the RI stage derives from the underspecification of the corresponding feature for each of those types of languages. Thus, they claim that for null subject languages, the underspecification of the feature

[P(erson)] triggers the *Avoid Plural Phenomenon*, which alludes to the fact that in null subject languages children do not produce plural verbal forms during the RI stage. In Dutch and English, it is the underspecification of the feature [N(umber)] that brings about the presence of RIs in child language.

In order to account for the scarce but nonetheless systematic occurrence of 'real' RIs in null-subject languages, as well as for the fact that, in these languages, more so than in the non-null subject languages, these RIs realize the two values (*realis* and *irrealis*) of the Mood primitive – two facts pointed out in Perales, Liceras and Bel (2006) – we would like to articulate a tentative proposal based on the typological accessibility of the [±P] and the [±R] markers in the different languages.

Table 2 shows that the feature [+P], which characterizes the verbal affixes marked for person in languages such as Catalan, Italian, Spanish and Brazilian Portuguese, has pronominal value (constitutes a vocabulary entry in the numeration), as proposed by Alexiadou and Anagnostopoulou (1998), following Speas (1994).[3] These languages also happen to have a distinct (unique) infinitival marker, [+R]. The combination of the positive value of these two features ([+P, +R]) implies that the RI stage will be short and less

[3] Even if, due to the reduction of verb pronominal affixes that it has undergone, Brazilian Portuguese has been argued to be in the process of becoming a [–null subject] language (see references in Kupisch & Rinke, 2007), it is far from obvious that the said reduction has had the syntactic consequences that would force such a parametric change (Martínez Sanz, 2011). Furthermore, Kupisch and Rinke (2007) show that, when it comes to the production of nonfinite forms, Italian and Brazilian Portuguese children pair together and are rather far from children acquiring [–null subject] languages such as French, German and certainly English.

obvious than in the case of languages such as Dutch, French and German, that can be characterized as [–P] and [+r], as they are [–null subject] languages with an infinitival marker but their infinitival marker is not distinct, thus we refer to it as [+r] (see table 2). Basque differs from the Romance null-subject languages in two respects: first, the [+p] morpheme is only phonetically realized in the auxiliary verb ([+p] languages), thus we reserve [+P] for languages such as Spanish with personal affixes in inflected forms ([+P] languages) and second, it does not have a distinct infinitival marker, thus it is a [+r] language, like French or German. However, in Romance, as well as in Greek, the subject personal affix is marked in both the auxiliary and the lexical verbs ([+P] languages). This is the reason why the length of the RI stage in child Basque falls between the length of the RI stage in Catalan/Italian/Spanish and the RI stage in Dutch/French/German. Greek shares the feature [+P] with the Romance languages but does not have the [R] or an [r] version of the [±R] feature. However, it has a bare form which realizes the *irrealis* value, but for a short period of time, as in the case of Romance. We have placed Romanian together with Greek, even if Romanian has an infinitival form (Avram & Coene, 2011), for two reasons: first, because all the evidence provided by these authors points to the fact that Romanian children do not use infinitival forms and, second, because the infinitival forms seem to be practically inexistent in the adult language, as they have been replaced by the subjunctive in a variety of contexts in which the infinitive is used in Romance. This may explain why

Romanian children use a bare subjunctive form during the RI stage and, interestingly enough, the percentage of these forms is similar to the percentage of infinitival forms used in child Romance (Spanish, Catalan or Italian) and for a similar period of time. Therefore, Romanian and Greek have an RI stage represented by a bare subjunctive in Romanian and a bare perfective in Greek (Varlokosta, Vainikka & Rohrbacher, 1996; Hyams, 2005). Hebrew and Russian, albeit typologically distant, are both [+null subject] languages and so is Tamil (Bar-Shalom & Snyder, 1998; Gagarina, 2002; Lakshmanan, 2006; Schaeffer & Ben Shalom, 2004). They indeed can be placed within the subset of languages which carry the feature [+P]. As for the distinct [R] features, Russian has been portrayed as having a phonologically salient one, the consonant -t (Gagarina, 2002).

Table 2:[4] The RI stage and the [±P] and [±R] markers across languages

Length of RI stage	Short ■	Short ■	Long ■■	Very long ■■■	The longest ■■■■
[±P] lexical & auxiliary verbs*	[+P]	[+P]		[–P]	[–P]
[±p] only auxiliary verbs**			[+p]		
[±R] distinct marker***	[+R]	[–R]			[–R]
[±r] non-distinct marker****			[+r]	[+r]	
[±-null subject]	[+null subject]	[+null subject]	[+null subject]	[–null subject]	[–null subject]
Languages	Br. Portuguese Catalan Italian Spanish Hebrew Russian	Greek Romanian	Basque	French Dutch German Danish Norwegian	English

[4] In this table, whose conceptualization originates in Liceras, Bel & Perales (2006, Table 11), we have included eight more languages, namely, Brazilian Portuguese, Danish, Hebrew, Norwegian, Romanian, Russian, Swedish and Tamil.

Swedish

Tamil

*The [+P] morpheme is phonetically realized on both auxiliary and lexical verbs.
**The [+p] morpheme is only phonetically realized on the auxiliary verb.
***The [+R] morpheme is distinct.
****The [+r] morpheme is non distinct.

Table 2 also shows that Spanish and English are on opposite sides of the continuum, as Spanish is a null subject language (has the feature [+P]) with a distinct infinitival marker (has the feature [+R]). English, on the other hand, is a non-null subject language (has the feature [–P]) and does not have a morphologically bound infinitival marker (has the feature [–R]). This leads us to formulate the question of whether in a simultaneous bilingual English-Spanish acquisition (2L1A) situation, the language that has the positive value of both features (Spanish in this specific case), which happens to imply that the Spanish verbal morphology is lexically more transparent, will exercise influence into English or vice-versa.[5]

3. Crosslinguistic influence in 2L1A

[5] Murasugi (2015) argues that the use of non-finite forms in child language is a universal phenomenon which is shaped by the morphology of the different languages. She specifically argues that Japanese, being a null subject language, has a very short RI stage, and that the RI analogues in Japanese are the verb + *ta* form (or *tyatta*) and onomatopoeia/mimetics. Given the fact that Japanese is a topic-drop language, it does not fall within the [+/-null subject] category as such, which suggests that features other than [±P] / [±R] (Tense, for instance) may have to be incorporated in a more comprehensive typology of RIs, an endeavor that is out of the scope of this paper.

It has been shown that crosslinguistic influence (mostly of the interfering type) occurs in the case of simultaneous bilingual acquisition in the phonological (Paradis, 2001), morphological (Nicoladis, 2002), syntactic (Genesee, Nicoladis & Paradis, 1995; Döpke, 2000; Müller, 1998; Yip & Mathews, 2000) and syntactic-pragmatic domains (Müller & Hulk, 2001), among others. Here, we would like to discuss two specific loci where facilitative crosslinguistic influence from Spanish into English has been identified in 2L1 English: one is copula omission (the lexical-semantic interface) and the other is subject omission (the syntactic-pragmatic interface).

3.1. Copula omission in English-Spanish 2L1A

Fernández Fuertes and Liceras (2010) and Liceras, Fernández Fuertes and Alba de la Fuente (2012) propose that the lexical-semantic interface may be an area of crosslinguistic influence, and that the directionality of influence would be determined by the language that is more transparent in terms of the lexical realization of a given semantic distinction. They specifically propose that linguistic interference might take place when languages (English and Spanish are also the languages these authors discuss and compare) differ in terms of the lexical realization of the two different types of predicates: Nominal or Individual Level predicates, as in (6), and Locative or Stage Level predicates, as in (7).

(6) Auntie is a girl

(7) My truck is down there

Examples (6) and (7) show that, in the case of English, the same lexical item (*be*) occurs with both types of predication. In Spanish, on the other hand, Nominal predicates are realized as *ser*, as in (8), and Locative predicates are realized as *estar*, as in (9).

(8) La tía es una chica

'The aunt is-ser a girl.'

(9) Mi camión está ahí debajo.

'My truck is-estar down there.'

Becker (2000, 2004) shows that in child English there is a significant difference with respect to copula omission depending on the type of predicate. Thus, omission with Nominal (individual level) predicates such as the ones in (6) or (10) is significantly lower than with Locative (stage level) predicates such as (7) and (11).

(10) Patsy's a girl (Peter, 2;03) (L. Bloom, 1970)

(11) I (am) in the kitchen (Nina, 2;01) (Suppes, 1974)

This author argues that the differences in the use of overt copula *be* versus null copula *be* in child English are determined by the semantic nature of the predicate so that with stage level predicates, the Prepositional Phrases in (7) and (11), copula omission is possible because these predicates have aspectual value. This implies that the Aspectual Phrase provides temporal anchoring to the sentence (Guéron & Hoekstra, 1995). This is not the case

with Nominal predicates, like the Noun Phrases in (6) and (10), and, therefore, copula *be* must be explicit to ensure temporal anchoring. Thus, child grammar differs from adult grammar in how temporal anchoring is instantiated: via the Inflectional Phrase, in the case of adults, and via the Inflectional Phrase (for Nominal predicates) or the Aspectual Phrase (for Locative predicates), in the case of children.

This is not the case for child monolingual Spanish or child monolingual Catalan (Becker, 2000; Sera, 1992; Bel, 2001), as instances of copula omission are very scarce with both predicate types. Therefore, it seems to be the case that only monolingual English, but not monolingual Spanish data display the patterns of omission found by Becker.

Going back to the case of bilingual children, Sera (2008) argued that the *ser* versus *estar* distinction forces the bilingual child to organize conceptual properties and that attributions around the two lexical items may spearhead the lexical realization of copula *be* not only with Locative or stage level predicates but also with Nominal or individual level predicates. This would imply that the patterns of omission found by Becker in the monolingual English grammar will not occur in the case of the bilingual English grammar. This is in fact what Fernández Fuertes & Liceras (2010) and Liceras, Fernández Fuertes & Alba de la Fuente (2012) found, as shown in table 3.

Table 3: Copula production in L1 English versus 2L1 English (English/Spanish)

Explicit *be*	**Nominal predicates**	**Locative predicates**
L1	76.3%	18.8%
2L1	91.2%	88.6%

[Adapted from Becker (2004, table 1) and Fernández Fuertes & Liceras (2010, table 8)]

The comparison of copula omission in monolingual (L1) and bilingual English (2L1) in Table 3 clearly shows that copula omission is extremely low with both Nominal and Locative predicates in the case of child bilingual English. Thus, Fernández Fuertes & Liceras (2010) and Liceras, Fernández Fuertes & Alba de la Fuente (2012) propose that crosslinguistic influence from Spanish into English facilitates the instantiation of copula *be* in bilingual English and this is so because the lexical transparency provided by the existence of two different lexical items (*ser* and *estar*) to realize the two different types of predicates in Spanish plays a role in the projection of the child's English bilingual grammar.

3.2. Subject omission in English-Spanish 2L1A

The status of subject omission and production in both [−null subject] and [+null subject] languages (Hyams, 1986, 1996; Frazier & De Villiers, 1990;

Valian, 1990, 1991; Wang et al., 1992; Weissenborn, 1992; Rizzi, 1993/1994; Valian & Eisenberg, 1996; Bel, 2001; Guasti, 2002, among many others) has been one of the most investigated issues in child language. A clear-cut outcome of these studies is that the omission of null subjects in child language occurs both in [+null subject] languages, where it is the adult grammatical option, as in the Spanish examples (12a) and (12b), and in [-null subject] languages such as English, where the null subjects in (13a) and (13b) are ungrammatical in the adult language.

(12) a. Horita viene
now (he/she) comes
(LV II: 78, 2;00, González, 1970)

b. Tengo un pelo
(I) have a hair
(María, 2;00, Ornat, CHILDES, MacWhinney, 2000)

(13) a. Broke this
(Peter, 2;00, Pierce, 1992)

b. Feel better
(Naomi, 1;11, Sachs, CHILDES, MacWhinney, 2000)

The status of subject omission and production in child bilingual grammars (2L1) has also been investigated (Deuchar & Quay, 2000; Liceras, Bel & Perales 2008, Liceras, Fernández Fuertes & Alba de la Fuente 2012; Liceras & Fernández Fuertes, 2019, Paradis & Navarro, 2003; among others). In

these bilingual grammars, null subjects also appear in both [+null subject] and [-null subject] languages, as shown in (14) and (15), respectively.

(14) a. No puedo subir
(I) cannot go upstairs
(Leo, 2;05, the FerFuLice corpus, CHILDES)

b. Ahora hacemos esto
now (we) do that
(Simon, 3;00, the FerFuLice corpus, CHILDES)

c. Hacieron un canción del lobo
(they) made a song about the wolf
(Leo, 3;00, the FerFuLice corpus, CHILDES)

(15) a. (It) roars .
(Simon, 2;05, the FerFuLice corpus, CHILDES)

b. (I) falled. [=fell]
(Simon, 2;06, the FerFuLice corpus, CHILDES)

c. (He) chased.
(Leo, 2;06, the FerFuLice corpus, CHILDES)

However, it is the potential interfering crosslinguistic influence from English into Spanish resulting in the overproduction of overt subjects in child bilingual Spanish than in child monolingual Spanish that has received a great deal of attention (Paradis & Navarro, 2003; Liceras, Bel & Perales 2008, Liceras, Fernández Fuertes & Alba de la Fuente 2012; Liceras & Fernández Fuertes, 2019; Nussbaum & Grinstead, 2013, among others), and

to this day, the results do not provide clear-cut evidence as to the existence of interfering crosslinguistic evidence (Liceras, Fernández Fuertes & Alba de la Fuente 2012; Liceras & Fernández Fuertes, 2019).

With respect to the opposite direction, namely, interfering crosslinguistic influence from Spanish into English due to the profuse occurrence of null subjects in Spanish, this issue has been investigated by Liceras & Fernandez Fuertes (2019). The comparison of null and overt subjects in the production of the three children (table 4), show that Naomi produces a higher number of null subjects than Simon ($p = 0$) and Leo ($p = 0$) (while no significant differences appear between the two bilingual children, $p = 0.3$).

Table 4: Null and overt pronouns in L1 English versus 2L1 English (Spanish)

	Null		**Pronominal**	
Bilingual English				
Simon	18.7%	(44/235)	81.3%	(191/235)
Leo	20.1%	(91/453)	79.9%	(362/453)
Adults	0.9%	(30/3482)	99.1%	(3452/3482)
Monolingual English				
Naomi	37.9%	(324/855)	62.1%	(531/855)
Adults	2.7%	(20/749)	97.3%	(729/749)

[Liceras & Fernández Fuertes, 2019, Table 13]

This lower production of null subjects by the two bilinguals when compared to Naomi, the monolingual child, shows that crosslinguistic influence from Spanish into English does not have an interfering effect because the bilingual children do not omit more subject pronouns than the monolingual child. On the contrary, what Liceras & Fernández Fuertes (2019) propose is that the lower occurrence of null subjects in child bilingual English is due to the lexical transparency which is available in Spanish via the two sets of Spanish "pronominal" referents, the verbal agreement markers and the actual overt pronouns, as in (16), versus the one set available in English, the overt subject pronoun, as in (17).

(16) **Nosotros/Ø** vivi-**mos** en Madrid

we live-1PL in Madrid

(17) **We** live in Madrid

According to these authors, lexical transparency plays a role here as in the case of copula omission. In other words, Spanish has a facilitating influence in child bilingual English, which implies that the subject pronoun omission stage in child bilingual English will be shorter and will show a lower frequency of null subjects. Thus, what these authors argue is that the *ser* versus *estar* dichotomy is somehow reproduced here as the availability of two subject types, null (agreement markers) and overt subjects, which allows for Spanish to play a facilitating crosslinguistic influence in the acquisition of English.

4. Crosslinguistic influence at the RI stage: the study

Taking as a point of departure, both the typology of the RI universal stage in child language and the role that instances of lexical transparency seem to play in exercising facilitating crosslinguistic influence from the language which displays such a transparency, we have carried out a study intended to determine whether the RI stage would also be the locus of facilitating crosslinguistic influence from Spanish into English.

Our point of departure is that Spanish is lexically transparent when it comes to the evidence that determines the RI stage, since it realizes both [+P] and [+R] morphologically, while English does not, as shown in (18) versus (19).

(18) Root infinitives [+R] and inflected forms [+P] in Spanish

a. Yo senta-**R**, ¿vale?
I sit-INF ok?
'I sit down, ok?.'
(María, 1;07)

b. Bibi dormi-**R**
baby doll sleep-INF
'The baby doll sleeps'
(María, 1;07)

c. Habl-**O** francés

speak-1SG French

'I speak French.'

d. Habla-**MOS** francés

speak-1PL French

'We speak French'

(19) Root infinitives [–R] and inflected verbs [–P] in English

a. Cromer wear-Ø glasses

(Eve, 2;00)

b. Mumma ride-Ø horsie

(Sarah, 2;06)

c. I speak-Ø French

d. We speak-Ø French

On the other hand, English may not exercise any influence in bilingual Spanish because, as shown in (19), the [–R] and [–P] features are not morphologically transparent.

4.1. Research questions and hypotheses

The research questions that we have formulated and the hypotheses that we will be testing are as follows:

RQ #1. Given that child English has a higher rate of RIs than child Spanish and for a longer period, will English have interfering influence in child bilingual Spanish?

Hypothesis #1. If this is the case, and when compared to monolingual Spanish, bilingual Spanish will show a higher rate of RIs and for a longer period. However, this is not expected because Spanish RIs are morphologically complex ([+R]) and the child is not expected to resort to a marked feature.

RQ #2. Given that child Spanish has a lower rate of RIs than child English and for a shorter period, will Spanish have positive influence in child bilingual English?

Hypothesis #2 (direct lexical transparency). If this is the case, child bilingual English will have a RI stage shorter than that in monolingual English due to lexical transparency from Spanish. However, lexical transparency as we have formulated it for the realization of RIs does not really mirror the type of lexical dichotomy that we have seen in the case of the two types of copulas or in the case of the two types of subject pronouns. In fact, this lexical transparency has an affixal realization and not a full lexical realization, a fact that may prevent the occurrence of facilitating crosslinguistic influence.

Hypothesis #3 (indirect lexical transparency). On the other hand, it could be the case that since lexical transparency in the Spanish realization of null and overt subjects (person agreement markers + personal pronouns) leads to an earlier realization of the need to have obligatory subjects in English, it may also be the case that the Spanish [+P, +R] feature

combination leads to a lower realization of RIs in child bilingual English and for a shorter period.

4.2. Data selection

In order to answer the two research questions and to test the three hypotheses, we have selected data from two simultaneous bilingual English/Spanish children (Leo and Simon from the FerFuLice corpus in CHILDES), two Spanish monolingual children (María and Magín from the Ornat and Aguirre corpora, respectively, in CHILDES) and two English monolingual children (Naomi and Nina from the Sachs and Suppes corpora, respectively, in CHILDES), as shown in table 5.

Table 5: Data selection

Child	**Age range**	**MLUw range [Spanish]**	**MLUw range [English]**	**Corpus [CHILDES]**
Simon [EN/SP]	1;10 – 2;11	1.070 – 3.705	1.000 – 2.765	FerFuLice
Leo [EN/SP]	1;10 – 2;11	1.143 – 3.438	1.000 – 3.018	FerFuLice
María [SP]	1;07 – 2;04	1.481 – 4.014	---	Ornat
Magín [SP]	1;07 – 2;10	1.235 – 3.070	---	Aguirre
Naomi [EN]	1;06 – 2;01	---	1.058 – 2.900	Sachs
Nina [EN]	1;11 – 2;11	---	1.833 – 3.745	Suppes

Table 5 also shows that both the age of the children and their MLUw (Mean

Length of Utterance measured in words) range makes the data highly comparable.

This data selection expands on the selection made in our previous work in that it involves data from six children (two children were analyzed in Liceras, Bel & Perales 2008, Liceras, Fernández Fuertes & Alba de la Fuente 2012; and four children in Liceras & Fernández Fuertes, 2019). Furthermore, the age range selected and the amount of data analyzed is also different in that now we are concerned with the very initial stages of acquisition where RIs could appear (the 2;4-4;10 age range was analyzed in Liceras, Bel & Perales 2008, and Liceras, Fernández Fuertes & Alba de la Fuente 2012), and, given that data from more children were added, adjustments needed to be done to the selection so that data were comparable across the six children. Therefore, the data selection in Table 5 as well as the data classification procedure from which the analysis in the subsequent sections derives have been specifically realized for the present study.

In the data selected, analyses were carried out on the verbal utterances produced by the children in which a RI appeared. This makes the present study different from and complementary to our previous works where RIs were not the target of the analysis but rather sentential subjects (Liceras, Bel & Perales 2008, Liceras, Fernández Fuertes & Alba de la Fuente 2012; Liceras & Fernández Fuertes, 2019) and copulas (Fernández Fuertes & Liceras, 2010).

4.3. Root Infinitives in bilingual and in monolingual Spanish

The analysis of the data has yielded a scarce RI rate in both the 2L1 and the L1 child production, as shown in table 6. This is in line with Spanish being a [+P,+R] language with a lower RI rate and a short RI stage.

Table 6: RIs in bilingual and monolingual Spanish

	RIs	**% RIs**
Bilingual		
Simon	4 / 307	1.3%
Leo	1 / 379	0.2%
Monolingual		
María	38 / 902	4.2%
Magín	40 / 3,125	1.2%

In fact, out of the overall number of verbal utterances produced by these children, only a small proportion contained RIs (being 4.2% the highest rate). When comparing bilingual to monolingual children's production, no crosslinguistic influence from English into Spanish is seen in the case of bilingual Spanish, as the amount of RIs produced by the bilinguals (5 cases which amount to 0.2%-1.3% of their total verbal production) is lower than that of the monolinguals (78 cases which amount to 1.2%-4.2% of their total verbal production).

Given that the nature of subjects may have some bearing on the RI

production (as in hypothesis #3), we have further classified the RI data we have obtained in terms of subject type. Table 7 shows that RIs appear with null and overt subjects alike and in similar proportions except for one of the L1 children, María, who produces more RIs with null subjects.

Table 7: RIs with null and overt subjects in bilingual and monolingual Spanish

	RIs with null subjects		**RIs with overt subjects**	
Bilingual				
Simon	3 / 230	1.3%	1 / 77	1.3%
Leo	0 / 273	0%	1 / 106	1%
Monolingual				
María	35 / 637 5.5%		3 / 265	1.1%
Magín	40 / 2,353	0.2%	0 / 772	0%

We have run statistical analyses using contrasts of proportions to detect significant differences across the two participant groups. These contrasts render significant differences between the production of Spanish bilingual children and that of the Spanish monolingual ones in that the production of RIs by the bilinguals is significantly lower (i.e., $p<0.05$ for Simon/María, Leo/María and Leo/Magín; $p=0.48$ for Simon/Magín).

These results point to the lack of crosslinguistic influence from English into Spanish in the case of the Spanish bilinguals.

4.4. Root Infinitives in bilingual and in monolingual English

Table 8 shows a higher RI rate in English than the one for Spanish (table 6). This is expected as RIs have a higher incidence in English.

Table 8: RIs in bilingual and monolingual English

	RIs	**% RIs**
Bilingual		
Simon	30 / 302	9.9 %
Leo	48 / 419	11.4%
Monolingual		
Naomi	115 / 1,280	8.9%
Nina	823 / 6,455	12.7%

In this case, the bilingual children's RI rate is between 9.9% and 11.4% of their overall production while that of the monolinguals is between 8.9% and 12.7%. In fact, when comparing bilinguals and monolinguals' English RI rate, a similar RI rate is seen in both 2L1 and L1 child production in English (i.e., $p>0.05$ for Simon/Naomi, Leo/Naomi, Simon/Nina and Leo/Nina). Therefore, the [+P,+R] value of Spanish does not seem to exert positive influence from Spanish. That is, no crosslinguistic influence from Spanish into English occurs.

Table 9: RIs with null and overt subjects in bilingual and monolingual English

	RIs with null subjects		RIs with overt subjects	
Bilingual				
Simon	25 / 68	36.8%	5 / 234	2.1%
Leo	37 / 105	35.2%	11 / 314	3.5%
Monolingual				
Naomi	71 / 442	16.1%	44 / 838	5.2%
Nina	186 / 842	22.1%	637 / 5,613	11.3%

Table 9 also shows that more RIs appear with null subjects both in the bilinguals' production as well as in the monolinguals' production. In Spanish, this was only the case for one of the monolingual children, María.

The results we have obtained allow us to address our two initial research questions. With respect to our RQ #1 on English having interfering influence in child bilingual Spanish given that child English has more RIs than Spanish and for a longer period, we can assert that our H#1 is confirmed: bilingual Spanish, when compared to monolingual Spanish, shows neither a higher rate of RIs nor for a longer period. As we hypothesized, this is expected because Spanish RIs are morphologically complex —they have a phonetically realized ([+R]) feature— and the child is not expected to resort to a "marked" or "salient" feature which is clearly linked to a lack of inflection.

In the case of child bilingual English (RQ #2) and given that child Spanish has a lower incidence of RIs than child English and for a shorter period, the question was whether Spanish would have positive influence on

child bilingual English. Out of the two alternative hypotheses, H#2 receives confirmation in that direct lexical transparency seems to be a requisite for facilitating crosslinguistic influence to take place. In other words, and even though the features that are linked to the RI stage in Spanish, [+R] and [+P] have morphological realization, they do not qualify for lexical transparency as Spanish *ser* and *estar* copulas or Spanish person agreement markers and overt subjects have. Therefore, RIs do not seem to be an area of potential crosslinguistic influence, neither interfering nor facilitating influence. Austin (2009) arrives at a similar conclusion: no influence from Spanish into Basque happens in the case of Spanish-Basque bilingual children. She attributes bilingual children's higher production of Basque RIs to the different input patterns they are exposed to when compared to the monolingual children. We would like to point out that, according to our features framework, influence from Spanish, a [+P, +R] language, into Basque, a [+p, +r] language, would predict a shorter RI period for the Basque-Spanish bilingual children than for the Basque monolingual children. Therefore, influence from Spanish would have gone in the opposite direction of what Austin's data show, namely the bilinguals would have produced a lower rate of RIs and for a shorter period than the Basque monolinguals. This lack of influence from the language whose RI-related features are more transparent (i.e., Spanish) seems to provide further evidence that lexical transparency may play a role when it is realized lexically (two different lexical items as in the case of Spanish copulas *ser*

and *estar* or a lexical item – the overt subject pronouns – and an affix that constitutes a vocabulary entry in the numeration – the Spanish pronominal affixes), but not when one of the relevant features is only realized as bound morphology, as it is the case with the infinitival marker.

5. Conclusions

In order to further characterize the nature and directionality of crosslinguistic influence in the case of English-Spanish simultaneous bilingual acquisition, we have analyzed the spontaneous production of RIs in two child bilingual (English-Spanish) learners. We have compared their production to those of two English and two Spanish monolingual children with a view to determining whether RIs could be considered as another locus where facilitative crosslinguistic influence from Spanish into English could be identified in 2L1 English.

Previous research identifying positive crosslinguistic influence in the domain of English and Spanish sentential subjects and copula verbs (Fernández Fuertes & Liceras, 2010; Liceras, Fernández Fuertes & Alba de la Fuente 2012; Liceras & Fernandez Fuertes, 2019) has shown that structures at the lexical-semantic interface (i.e., copulas) and at the syntactic-pragmatic interface (i.e., subjects) mature earlier in the English production of 2L1 bilinguals. In both cases, lexical transparency, as seen in

the two Spanish copula types and in the two Spanish pronominal subject types, is behind this facilitating effect. However, no such effect seems to appear in the case of RIs in that no advantage is shown in the bilinguals' English production when compared to that of the monolinguals'. That is, RIs are not comparable to subjects and copulas in this respect. We attribute this lack of facilitation to the notion of lexical transparency and how it is differently instantiated in copulas and subjects versus RIs: while two sets appear in the case of Spanish subjects (null and overt subjects) and Spanish copulas (*ser* and *estar*), no such lexical duplicity applies to RIs. Rather, it is the fact that Spanish is a [+P,+R] language while English is [–P,–R] that makes Spanish a more transparent language at the affixal level but not lexically. Therefore, we would like to conclude that the RI stage is not an area where CLI with a facilitating effect takes place due to lexical transparency.

Given these results, and the results reported by Austin (2009), the question now could be whether these results would be replicated in the case of language combinations with different [P, R] specifications (e.g., Greek and Spanish, both being [+P] but Greek being [–R] as opposed to Spanish). Also, and given the fact that we have only used spontaneous production data, it might be the case that experimental data using off-line tasks, as suggested by Grinstead (2016), or online reaction time experiments, eye-tracking or ERPs could allow us to identify differences between the bilinguals and the monolinguals which could point to possible facilitating

CLI.

Acknowledgements

We would like to thank the audience of the Romance Turn 9 conference for their comments. We would also like to thank two anonymous reviewers for their comments and suggestions as well as the editors. Part of this research was funded by the Castile and León Regional Government and ERDF (European Regional Development Fund) (VA009P17), and by the Spanish Ministry of Science, Innovation and Universities and ERDF (PGC2018-097693-B-I00). The compilation of the FerFuLice corpus was possible thanks to funding by the Spanish Ministry of Science and Technology (HUM2007-62213) and ERDF (BFF2002-00442), by the Castile and León Regional Government (VA046A06; UV 30/02) and by the Faculty of Arts of the University of Ottawa and the Social Sciences and Humanities Research Council of Canada (SSHRC 410-2004-2034).

References

Aguado-Orea, J-J. (2004). *The acquisition of morpho-syntax in Spanish: Implications for current theories of development.* Doctoral dissertation, University of Nottingham.

Alexiadou, A. & Anagnostopoulou, E. (1998). Parametrizing AGR: word order, V-movement and EPP-checking. *Natural Language and Linguistic Theory, 16*, 491-539.

Austin, J. (2009). Delay, interference and bilingual development: The acquisition of verbal morphology in children learning Basque and Spanish. *International Journal of Bilingualism, 13*(4), 447-479.

Avram, L. & Coene, M. (2011). Early non-finite forms in child Romanian. *Revue Roumaine de Linguistique, LVI* (4), 347-370.

Bar-Shalom, E. & Snyder, W. (1998). Root infinitives in child Russian: A comparison with Italian and Polish. In A. Sorace, C. Heycock & R. Shillcock (Eds.), *Language Acquisition: Knowledge Representation and Processing* (pp. 22 – 27). Edinburgh: The University of Edinburgh.

Becker, M. (2000). *The development of the copula in child English: the lightness of Be*. Doctoral dissertation, University of California, Los Angeles.

Becker, M. (2004). Copula omission is a grammatical reflex. *Language Acquisition, 12*(2), 157-167.

Bel, A. (1998). *Teoria lingüística i adquisició del llenguatge. Anàlisi comparada dels trets morfològics em català i en castellà*. [Linguistic theory and language acquisition. Comparative analysis of Catalan and Spanish morphological features]. Doctoral dissertation, Universitat Autònoma de Barcelona.

Bel, A. (2001). The projection of aspect: A key in the acquisition of finiteness? In M. Almgren, A. Barreña, M.-J. Ezeizabarrena, I. Idiazabal & B. MacWhinney (Eds.), *Research on Child Language Acquisition. Proceedings of the 8th Conference of the International Association for the Study of Child Language* (pp. 1297 – 1313). Somerville, Mass.: Cascadilla Press.

Bloom, L. (1970). *Language development: form and function in emerging grammars.* Cambridge, Mass.: MIT Press.

Deuchar, M. & Quay, S. (2000). *Bilingual Acquisition: Theoretical Implications of a Case Study*. Oxford: Oxford University Press.

Döpke, S. (2000). Generation of and retraction from crosslinguistically motivated structures in bilingual first language acquisition. *Bilingualism: Language and Cognition*, *3*(3), 209-226.

Ezeizabarrena, M. J. (1997). Infinitivos verbales en el lenguaje de niños bilingües. In L. Díaz & C. Pérez (Eds.), *Views on the acquisition and use of a second language*. Proceedings of EUROSLA'97 (pp. 177 – 190). Barcelona: University Pompeu Fabra.

Fernández Fuertes, R. & Liceras, J. M. (2010). Copula omission in the English developing grammar of English/Spanish bilingual children. *International Journal of Bilingual Education and Bilingualism,* 13 (5), 525-551.

Frazier, L. & de Villiers, J. G. (1990). *Language Processing and Language Acquisition*. Dordrecht: Kluwer.

Gagarina, N. (2002). Thoughts on optional infinitives (in Russian). In D. Hole, P. Law & N. Zhang (Eds.), *Linguistics by heart, Webfest for Horst-Dieter Gasde* (pp. 1 – 23). Berlin: ZAS.

Genesee, F., Nicoladis, E. & Paradis. J. (1995). Language differentiation in early bilingual development. *Journal of Child Language,* 22(3), 611-631.

González, G. (1970). *The acquisition of Spanish grammar by native Spanish speakers*. Doctoral dissertation, University of Texas at Austin.

Grinstead, J. (1994). The Emergence of Nominative Case Assignment in Child Catalan and Spanish. Unpublished Master's Thesis, University of California, Los Angeles.

Grinstead, J. (1998). *Subjects, sentential negation and imperatives in child Spanish and Catalan.* Doctoral dissertation, University of California, Los Angeles.

Grinstead, J. (2016). Root infinitives in child language and the structure of the clause. In J. Lidz, W. Snyder & J. Pater (Eds.), *The Oxford Handbook of Developmental Linguistics* (pp. 241 – 266). Oxford: Oxford University Press.

Guasti, M. T. (1994). Verb syntax in Italian child grammar: Finite and nonfinite verbs. *Language Acquisition, 3*, 1-40.

Guasti, M. T. (2002). *Language acquisition: The growth of grammar*. Cambridge, Mass.: MIT Press.

Guéron, J. & Hoekstra, T. (1995). The temporal interpretation of predication. In A. Cardinaletti & M.-T. Guasti (Eds.), *Syntax and Semantics 28: Small clauses* (pp. 77 – 107). New York: Academic Press.

Haegeman, L. (1994). Root infinitives, tense and truncated structures. *Language Acquisition, 4*(3), 205-255.

Hamann, C. & Plunkett, K. (1998). Subjectless sentences in child Danish. *Cognition*, *69*(1), 35-72.

Hoekstra, T. & Hyams, N. (1995). Missing heads in child language. In C. Koster & F. Wijnen (Eds.), *Proceedings of the Groningen Assembly on Language Acquisition held at the University of Groningen, 7-9 September 1995* (pp. 251 – 260). Groningen: Centre for Language and Cognition.

Hoekstra, T. & Hyams, N. (1998). Aspects of root infinitives. *Lingua, 106*, 81–112.

Hyams, N. (1986). *Language Acquisition and the Theory of Parameters*. D. Reidel: Dordrecht.

Hyams, N. (1994). V2, Null arguments and C-Projections. In T. Hoekstra & B. Schwartz (Eds.), *Language Acquisition Studies in Generative Grammar* (pp. 21 – 56). Amsterdam: John Benjamins.

Hyams, N. (1996). The underspecification of functional categories in early grammars. In H. Clahsen (Ed.), *Generative perspectives on language acquisition. Empirical findings, theoretical considerations*

and crosslinguistic comparisons (pp. 91 – 127). Amsterdam: John Benjamins.

Hyams, N. (2001). Now you hear it, now you don't: The Nature of optionality in child language. In A. H.-J. Do, L. Domínguez & A. Johansen (Eds.), *Proceedings of BUCLD 25* (pp. 34 – 58). Sommerville, Mass.: Cascadilla Press.

Hyams, N. (2005). Child non-finite clauses and the modal-aspect connection: Evidence from child Greek. In P. Kempchinsky & R. Slabakova (Eds.), *The Syntax, Semantics and Acquisition of Aspect* (pp. 293 – 316). Dordrecht: Kluwer.

Hyams, N. (2006). Aspect matters. In K. U. Deen, K. U. J. Nomura, B. Schulz & B. D. Schwartz (Eds.), *Proceedings to the Inaugural Conference on Generative Approaches to Language Acquisition – North America (GALANA), vol. 1. University of Connecticut Occasional Papers in Linguistics, 4*, 1-18.

Hyams, N. (2007). Aspectual effects on interpretation in early grammar. *Language Acquisition 14*, 231–268.

Kupisch, T. & Rinke, E. (2007). A fresh look at root infinitives from a cross-linguistic perspective. In M. Anderssen & M. Westergaard (Eds.), *Papers from the Language Acquisition Workshop (SCL 22). Nordlyd, 34*(3), *87-109.*

Lakshmanan, U. (2006). Assessing linguistic competence: Verbal inflection in child Tamil. *Language Assessment Quarterly*, *3*(2), 171-205.

Legate, J. A. & Yang, Ch. (2007). Morphosyntactic Learning and the Development of Tense. *Language Acquisition, 14*(3), 315-344.

Liceras, J. M., Bel, A. & Perales. S. (2006). 'Living with optionality': root Infinitives, bare forms and inflected forms in child null subject languages. In N. Sagarra & J. A. Toribio (Eds.), *Proceedings of the 2006 Hispanic Linguistic Symposium* (pp. 203 – 216). Somerville, Mass.: Cascadilla Press.

Liceras, J. M., Fernández Fuertes, R. & Alba de la Fuente, A. (2012). Subject and copula omission in the English grammar of English-Spanish bilinguals: on the locus and directionality of interlinguistic influence. *First Language, 32*(1-2), 88-115.

Liceras, J. M., Fernández Fuertes, R. & Pérez Tattam, R. (2008). Null and overt subjects in the developing grammars (L1 English/L1 Spanish) of two bilingual twins. In C. Pérez-Vidal, M. Juan Garau & A. Bel (Eds.), *A portrait of the young in the new multilingual Spain* (pp. 111 – 134). Clevendon: Multilingual Matters.

Liceras, J. M. & Fernández Fuertes, R. (2019). Subject omission/production in child bilingual English and child bilingual Spanish: the view from linguistic theory. *Probus*, *31*(2), 245-278.

MacWhinney, B. (2000). *The CHILDES Project: Tools for analyzing talk.* Mahwah, NJ: Lawrence Erlbaum Associates.

Martínez Sanz, C. (2011). *Null and overt subjects in a variable system: The case of Dominican Spanish.* Doctoral dissertation, University of Ottawa.

Müller, N. (1998). Transfer in bilingual first language acquisition. *Bilingualism: Language and Cognition*, *1*(3), 151-172.

Müller, N. & Hulk, A. (2001). Crosslinguistic influence in bilingual language acquisition: Italian and French as recipient languages. *Bilingualism: Language and Cognition*, *4*(1), 1-53.

Murasugi, K. (2015). Root infinitive analogues in child Japanese. In M. Nakayama (Ed.), *Handbook of Japanese Psycholinguistics* (pp. 117 – 147). Berlin/Boston: de Gruyter.

Nicoladis, E. (2002). What's the difference between 'toilet paper' and 'paper toilet'? French-English bilingual children's crosslinguistic transfer in compound nouns. *Journal of Child Language, 29*, 1-20.

Nussbaum, C & Grinstead, J. (2013). Overt subject realization by Spanish-English bilinguals in Spanish. Paper presented at the 2013 Hispanic Linguistics Symposium, University of Ottawa, 17–20 October.

Paradis, J. (2001). Do bilingual two year olds have separate phonological systems? *International Journal of Bilingualism*, *5*(1), 19-38.

Paradis, J. & Navarro, S. (2003). Subject realization and interlinguistic interference in the bilingual acquisition of Spanish and English. *Journal of Child Language, 30*, 1-23.

Perales, S., Liceras, J. M. & Bel, A. (2006). Some remarks on the realization of the *realis/irrealis* opposition in child language: Towards a universal characterization of the Root Infinitive stage across languages. *Cahiers Linguistiques d'Ottawa, 34*, 87-98.

Phillips, C. (1995). Syntax at Age 2: Cross-Linguistic Differences. *MIT Working Papers in Linguistics, 26*.

Pierce, A. (1992). *Language acquisition and syntactic theory: A comparative analysis of French and English child grammars*. Dordrecht: Kluwer.

Platzack, C. (1992). Functional categories and early Swedish. In J. Meisel (Ed.), *The acquisition of verb placement: Functional categories and V2 phenomena in language acquisition* (pp. 63-82). Kluwer.

Poeppel, D. & Wexler, K. (1993). The full competence hypothesis of clause structure in early German. *Language, 69*, 1-33.

Radford, A. (1990). *Syntactic Theory and the Acquisition of English syntax*. Oxford: Blackwell.

Rice, K., Wexler, K. & Hershberger, S. (1998). Tense over time: the longitudinal course of tense acquisition in children with specific language impairment. *Journal of Speech, Language, and Hearing*, *41*(6), 1412-1431.

Rice, K., Wexler, K. & Redmond, S. M. (1999). Grammaticality judgements of an extended optional infinitive grammar: evidence from English-

speaking children with specific language impairment. *Journal of Speech, Language and Hearing Research, 42*(4), 943-961.

Rizzi, L. (1993/1994). Some notes on linguistic theory and language development: The case of root infinitives. *Language Acquisition, 3*, 371-393.

Rizzi, L. (1994). Early null subjects and root null subjects. In T. Hoekstra & B. D. Schwartz (eds.), *Language Acquisition Studies in Generative Grammar* (pp. 151 – 176). Amsterdam: John Benjamins.

Salustri, M. & Hyams, N. (2006a). The Imperative as RI Analogue: New Data and Competing Theories. In K. U. Deen, K. U. J. Nomura, B. Schulz & B. D. Schwartz (Eds.), *Proceedings to the Inaugural Conference on Generative Approaches to Language Acquisition – North America (GALANA), vol. 2* (pp. 285 – 296). *University of Connecticut Occasional Papers in Linguistics 4*.

Salustri, M. & N. Hyams. (2006b). Looking for the universal core of the RI stage. In V. Torrens & L. Escobar (Eds.) *The Acquisition of Syntax in Romance Languages* (pp. 159 – 182). Amsterdam: John Benjamins.

Salustri, M. & N. Hyams (2003). Is there a RI analogue in Romance languages? In B. Beachley, A. Brown & F. Conlin (Eds.), *Proceedings of the BUCLD 27* (pp. 692 – 703), Sommerville, Mass.: Cascadilla Press.

Sano, T. (1995). *Roots in language acquisition: A comparative study of Japanese and European languages*. Doctoral dissertation, UCLA.

Santelman, L. (1995). *The acquisition of verb second grammar in child Swedish*. Doctoral dissertation, Cornell University.

Schaeffer, J. (1990). The syntax of the subject in child language: Italian compared to Dutch (Unpublished Master's thesis). University of Utrecht.

Schaeffer, J. & Ben Shalom, D. (2004). On root infinitives in child Hebrew. *Language Acquisition*, *12*(1), 83-96

Schütze, C. T. & Wexler, K. (1996). Subject Case Licensing and English Root Infinitives. In A. Stringfeloow, D. Cahana-Amitay, E. Hughes & A. Zukowski (Eds), *Proceedings of the 20th Annual Boston University Conference on Language Development* (pp. 670 – 681). Somerville, Mass.: Cascadilla Press.

Sera, M. D. (1992). To be or to be: use and acquisition of the Spanish copulas. *Journal of Memory and Languages, 31*(3), 408-427.

Sera, M. D. (2008). Commentary on 'copular acquisition' — a response to Silva-Corvalán and Montanari. *Bilingualism: Language and Cognition*, *11*, 361-363.

Serrat, M. & Aparici, M. (1999). Morphological errors in early language acquisition: evidence from Catalan and Spanish. Paper presented at the 8th Conference of the International Association for the Study of Child Language. Donostia-San Sebastián, Spain.

Speas, M. (1994). Null arguments in a theory of economy of projection. *University of Massachusetts Occasional Papers in Linguistics, 17*, 179-208.

Suppes, P. (1974). The semantics of children's language. *American Psychologist*, 29, 103-114.

Torrens, V. (1992). The acquisition of Catalan and Spanish. Paper presented at the psycholinguistics lab, UCLA.

Torrens, V. (1995). *L'adquisició de la sintaxi en català i castellà: La categoria functional de flexió.* Doctoral dissertation, Universitat de Barcelona.

Tsimpli, I. (1992). *Functional categories and maturation: the prefunctional stage of language acquisition*. Doctoral dissertation, University College London.

Valian, V. (1990). Null subjects: a problem for parameter setting models of language acquisition. *Cognition*, *35*, 105-122.

Valian, V. (1991). Syntactic subjects in the early speech of American and Italian children. *Cognition, 40*, 21-81.

Valian, V. & Eisenberg, Z. (1996). The development of syntactic subjects in Portuguese-speaking children. *Journal of Child Language, 23*, 103-128.

Varlokosta, S., Vainikka, A. & Rohrbacher, B. (1996). Root infinitives without infinitives. In A. Stringfellow, D. Cahana-Amitay, E. Hughes

& A. Zukowski (Eds.), *Proceedings of the 20th Annual Boston University Conference on Language Development* (pp. 816-827). Somerville, Mass.: Cascadilla Press.

Wang, Q., Lillo-Martin, D., Best, C.T. & Levitt, A. (1992). Null subject versus null object: some evidence from the acquisition of Chinese and English. *Language Acquisition, 2*, 221-254.

Weissenbom, J. (1991). Functional categories and verb movement: The acquisition of German syntax reconsidered. In M. Rothweiler (Ed.), *Spracherwerb und Grammatik. Linguistische Untersuchungen zum Erwerb von Syntax und Morphologie. Linguistische Berichte, Sonderheft*, 3, 190-224.

Weissenborn, J. (1992). Null subjects in early grammars: implications for parameter-setting theories. In J. Weissenborn, H. Gookluck & T. Roeper (Eds.), *Theoretical issues in language acquisition* (pp. 269-299). Hillsdale, N.J.: Lawrence Erlbaum.

Weverink, M. (1989). *The subject in relation to inflection in child language*. Master's thesis, University of Utrecht.

Wexler, K. (1994). Optional infinitives, head movement and the economy of derivations. In D. Lightfoot & N. Hornstein (Eds.), *Verb Movement* (pp. 305 – 350). Cambridge: Cambridge University Press.

Wexler, K. (1998). Very early parameter setting and the unique checking constraint: A new explanation of the optional infinitive stage. *Lingua, 106*, 23-79.

Yip, V. & Matthews, S. (2000). Syntactic transfer in a Cantonese-English bilingual child. *Bilingualism: Language and Cognition, 3*(3), 193-208.