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The Acquisition of Copula Verbs in English/Spanish and Bulgarian/Spanish
Bilingual Children: Language Contact in Early Bilingualism

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The work presented in this MA thesis is, to the best of my knowledge and belief, original and my own work, except as acknowledged in the text. The work in this thesis has not been submitted, either in whole or in part, for a degree at this or any other university.

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Abstract

This dissertation investigates the 2L1 English/Spanish and 2L1 Bulgarian/Spanish acquisition of the English, Spanish, and Bulgarian copula verbs, i.e. *to be*, *ser* and *estar*, and *сѣм* (*sam*) respectively. Previous studies on monolingual language acquisition dealing with this topic have argued that English children's production is characterized by high omission rates in stage-level (SL) predicates as opposed to individual-level (IL) predicates; while that of Spanish children's show virtually no omission. In the case of bilingual language acquisition, children acquiring English and Spanish simultaneously have been said to acquire the English copula verb earlier than L1 English speakers and to present much lower omission rates. Spontaneous data from five children have been analyzed for this study in order to determine whether these children produce higher rates of null copulas with IL or SL predicates. Moreover, it aims at establishing whether bilingual children acquire this grammatical item sooner (i.e. there is acceleration), later (i.e. there is delay), or at the same pace (i.e. no bilingual effect) as their monolingual counterparts (i.e. L1 English and L1 Spanish). Finally, this study addresses the issue of dominance in order to determine whether the bilingual children are Spanish dominant or English dominant, in the case of the two 2L1 English/Spanish children, or Bulgarian dominant, in the case of the 2L1 Bulgarian/Spanish child. Results show that in the one-copula languages, i.e. English and Bulgarian, the omission of the copula verb is linked to the predicate type since higher rates of omission have been found with SL predicates in all the children's output. However, this is not the case for Spanish, the two-copula language. From a developmental point of view, no bilingual effect has been detected in the Spanish data from the three bilingual children. However, the acquisition of the English copula verb in the case of the 2L1 English/Spanish children is delayed with respect to their L1 counterpart. This suggests that the bilingual children under analysis are Spanish dominant in terms of the copula verb.

Keywords: copula verbs, IL predicates, SL predicates, simultaneous bilingualism, language dominance, copula omission

1. Introduction¹

Language acquisition has been attracting linguists' and psychologists' attention for decades. Some of the interesting questions they have been asking themselves, according to Lightbown and Spada (2006, p. 1), are the following: what enables a child to produce meaningful sentences? Why do children develop complex grammatical language if their early simple communication is successful? Does child language develop similarly in all languages? How do bilingual children acquire more than one language? Although all these questions do not have a straight-forward answer and much research needs to be done to tentatively start answering them, some properties that define the early stages of the language acquisition process are clear. One of these undisputable properties is that children across languages do not produce functional categories in their speech during the initial stages (Brown 1973) and this affects both monolingual first language (L1) acquisition and the simultaneous acquisition of two first languages (2L1).

Contextualizing the omission of functional categories, two basic questions emerge: why is child grammar different from the adult target? and how does child grammar develop into adult grammar? This can be explained by means of Chomsky's general assumption that humans are biologically predisposed to acquire language, and that all languages share a set of innate universal principles, the so-called Universal Grammar (UG). However, this predisposition that we all have is not enough without an adequate input which will activate the Language Acquisition Device (LAD). Nonetheless, the UG and input hypotheses do not explain why lexical categories are acquired earlier than functional ones since both lexical and functional categories are present in the linguistic input that children receive.

Consequently, some researchers developed the following two hypotheses which are concerned with the availability of functional categories throughout the process of language acquisition. Firstly, Borer and Wexler (1987; 1992) claim that language acquisition is not an abrupt process, but it rather takes a certain period of time; thus, some linguistic principles depend on maturation which is biologically determined, and that is the reason why functional categories are absent from child grammar. And secondly,

¹ Part of the research conducted in this MA dissertation has been done under a scholarship awarded to me by the Consejo Social of University of Valladolid during the academic year 2015-2016. During that period, I have been working with the UVA LAL under the direction of Raquel Fernández Fuertes on the methodology of data collection and data analysis and I have also collected and transcribed the Stankova corpus under analysis in this dissertation.

authors such as Hyams (1986) argue that functional categories are present from the onset of acquisition, and the fact that some of them are omitted is because of the lack of knowledge children have of other features related to them.

For the present study, I assume, in the line of Hyams (1986), that functional categories are available throughout the process of acquisition, but they are not instantiated because they are not independently motivated but linked to the lexical items that a child has acquired.

These two hypotheses have been said to characterize both L1 and 2L1 acquisition. However, in the case of 2L1 acquisition other phenomena, which will be developed in subsequent paragraphs, might interfere given the specific properties of this acquisition process. A bilingual has been defined in two ways: firstly, as a speaker having an identical command in two different languages (Marouzeau 1951), a rather idyllic definition that is no longer used nowadays, or as a speaker having a similar or a different command of two languages (Edwards 2004). Furthermore, Butler and Hakuta (2004) hold that there are different types of bilingualism. Firstly, they argue that bilingualism can be either simultaneous, when two languages are acquired at the same time, or sequential, i.e., firstly, an L1 is acquired and then an L2. Depending on the age of the speaker, they claim that bilingualism can be early, if the two languages are acquired early in life, or late, if a speaker learns an L2 after his L1 has been fully established. Moreover, regarding the command that the speaker may have of the two languages, the bilingualism can be symmetric, if the command is equal for the different linguistic skills, or asymmetric, if the command of the two languages is different. Finally, bilingualism can be individual, if the society in which the speaker lives is monolingual, or societal, if the society in which a speaker lives is bilingual. In the present dissertation, the term 2L1 bilingualism will be used to refer to simultaneous early bilingualism, a term that is often used in bilingual acquisition research. However, as will be seen below, this term is nothing short of debate.

2L1 acquisition has been defined in different ways by different researchers (e.g. McLaughlin 1978; Padilla and Lindholm 1984; de Houwer 1990). McLaughlin (1978) establishes that simultaneous language acquisition is due to the exposure to more than one language before the age of 3; besides, he defines sequential bilingualism as the exposure to a second language (henceforth L2) after the third birthday of a child. Padilla and Lindholm (1984) claim that we can talk about simultaneous bilingualism only when a child is exposed to more than one language from birth, and so, if a child starts being

exposed to another language after that moment, it would be an example of sequential bilingualism. Finally, de Houwer (1990) argues that simultaneous bilingualism occurs in contexts in which more than one language is used on a daily basis and the exposure to both languages has no more than a week of difference. There is still an ongoing debate as to which age should be considered the cut-off point distinguishing 2L1 acquisition from sequential acquisition which involves the acquisition of a second language (L2). For the present dissertation, McLaughlin's (1978) view will be followed.

The specific properties of 2L1 acquisition affect three main areas: the development of the two grammars, the notion of dominance, and the effect of interlinguistic influence. When two L1s are being simultaneously acquired the question is whether the two grammars develop interdependently or autonomously. There are three main hypotheses regarding this issue which are the unitary language hypothesis, the interdependent language hypothesis, and the autonomous language hypothesis. The former claims that when children are exposed to two languages simultaneously, they go through an initial period in which they do not differentiate them (Volterra and Taeschner 1978). During the second period of language acquisition, according to this hypothesis, children differentiate between the two lexicons, but not between the grammatical systems. It is in the third stage when children start to fully distinguish their two languages. However, the maturational schedules of monolingual and bilingual speakers may be exactly the same, that is, L1 and 2L1 speakers acquire a particular grammatical item at the same pace, or different, i.e. 2L1 speakers acquire a grammatical property sooner (acceleration) or later (delay) than their L1 counterpart. The second hypothesis claims that there is a systemic influence of one language into the other and, therefore, the rate of language development in bilingual and monolingual children is different (Paradis and Genesee 1996). The last hypothesis claims that the two language systems of bilingual children are completely separated from the very beginning; consequently, their two languages develop at the same rate as those of their respective monolingual counterparts (Paradis and Genesee 1996).

With respect to language dominance, it has traditionally been defined in terms of proficiency (Petersen 1988; Genesee, Nicoladis, and Paradis 1995; Deuchar and Muntz 2003; among others), assuming therefore that a 2L1 bilingual could be more proficient in one of his or her L1s. However, Yip and Matthews distinguish between dominance understood "as property of the bilingual mind and a concept of language knowledge" (2006, p. 98) and dominance as language proficiency. Thus, for them, language

dominance is linked to the “underlying competence and [it is] not merely a measure of performance or language use” (Yip and Matthews 2006, p. 101).

Language dominance is connected to the input children are exposed to. In fact, it is assumed that input is a determining factor for language dominance, and so bilingual children are considered dominant in the language in which they receive a higher amount of input, usually the L1 of their main caretaker. Hence, language dominance is not static as it may change if a child starts receiving more input in the other language (Romaine 1995).

Birdsong (2014) distinguishes between two different areas within language dominance: dimension and domain. The former deals with the linguistic competence, production, and processing of language, whereas the latter is related with the situation and context of language use. Therefore, morphosyntactic knowledge is linked to dimension-based dominance, while child-directed speech (i.e. input) would be domain-based dominance. Nevertheless, Liceras et al. (2008) propose a new approach to language dominance, i.e. the Grammatical Features Spell-Out Hypothesis (GFSH)

These authors do not consider language dominance to be linked to either language external factors or whole inventory of properties that characterize a particular language. Rather, their view on dominance is more focused on the nature of the specific functional categories, and the way these are specified in a particular language. They claim that “in the process of activating the features of the two grammars, the bilingual child, who relies on one functional abstract lexicon, [...] will favor functional categories containing highly ‘grammaticized features’” (Liceras et al. 2008, p. 829). This means that a bilingual child’s dominant language regarding a particular grammatical feature is that in which this item has more salient properties, regardless of the amount of input the child receives in this particular language. This language-internal approach to language dominance will be the one considered in the present study.

Interlinguistic influence is related to the interaction between the two languages of the bilingual, and it can have a positive or a negative effect (Paradis and Genesee 1996). If the interlinguistic influence is positive, the bilingual children will perform better than the monolinguals concerning a particular grammatical item in either or both of these two respects: they will produce less non-adult-like forms and until earlier in development than the monolinguals. On the contrary, if interlinguistic influence is negative, the bilinguals’

performance will be worse when compared to that of monolingual children since they transfer properties from one of their languages into the other, and this will make their production less adult-like.

If 2L1 bilingual children could have different maturational schedules in each of their languages (that is, if a specific grammatical property emerges sooner in one language), if they could have an unbalanced dominance of the two languages, and if the grammatical properties of the two languages can interact, then, their acquisition could be affected by development, by dominance, and by interlinguistic influence. Taking into account this previous contextualization on bilingual acquisition in general and on the acquisition of functional categories by 2L1 bilingual children in particular, the present dissertation deals with the acquisition of a particular functional category (i.e. copula verbs) in three languages (i.e. English, Spanish, and Bulgarian) in the spontaneous production of two 2L1 English/Spanish children and one 2L1 Bulgarian/Spanish child

In this master thesis, I approach three copula systems: the Spanish one, which is a two-way system as it has two copulas (i.e. *ser* and *estar*), and the English and Bulgarian ones, which are one-way systems as they only have one copula (i.e. *to be* and *sam* respectively). Considering this, this dissertation has two main objectives: firstly, to determine how the English, Spanish and Bulgarian copula verbs are acquired by the children under analysis considering the GFSH. Consequently, I aim at verifying if the fact that the Spanish copula verbs have more salient properties allows these children to acquire this grammatical item earlier in Spanish than in their other first language, which in both cases has only one copula verb.

The second aim of this study is to determine, in the case of the English and Spanish copulas, whether these three children acquire the Spanish copula verbs at the same rate as their monolingual counterparts and, in the case of the 2L1 English/Spanish bilinguals, whether they acquire the English copula verb at the same rate as their monolingual counterparts. In the case of the 2L1 Bulgarian/Spanish bilingual child, she can only be investigated for these features of 2L1 acquisition in terms of Spanish since no L1 Bulgarian child data are available. Therefore, my objective is to verify if, in the case of the 2L1 English/Spanish bilingual twins compared with their monolingual counterparts, there is acceleration, delay, or no bilingual effect, i.e. whether both languages develop independently from one another, and the grammatical item under analysis develops as in L1 acquisition (no bilingual effect) or whether differences between monolingual and

bilingual acquisition can be pointed out (bilingual effect) and, in this last case, whether these differences point to acceleration or delay of the bilingual production.

This dissertation is organized as follows: in section 2, I discuss the similarities and differences in terms of the copula verbs in English, Spanish, and Bulgarian. Section 3 addresses the previous empirical studies on the topic under discussion in this dissertation. Firstly, I focus on L1 English acquisition; afterwards, I concentrate on L1 Spanish acquisition, and finally, I deal with the empirical works on 2L1 English/Spanish acquisition. In section 4, the hypotheses which this dissertation aims at confirming are expounded. Afterwards, in section 5, the empirical study carried out is presented in terms of participants and methodology. The results obtained from the data analyses are presented in section 6 and discussed in section 7. Finally, section 8 presents the conclusions reached in the light of the analysis carried out.

2. Theoretical background: the grammatical properties of copula verbs

In this section, firstly, the similarities among the three languages under discussion in this dissertation, i.e. English, Spanish, and Bulgarian, are presented regarding the copula verbs (subsection 2.1.). Afterwards, the peculiarities of this grammatical item in each language individually are expounded in subsections 2.2.1. (English), 2.2.2. (Spanish), and 2.2.3. (Bulgarian).

2.1. Similarities among the copula verbs in English, Spanish, and Bulgarian

Becker defines the copula verb as a verb type which “serves to link the predicate to the subject” (2000, p. 4). According to Schütze (2000), this type of verb does not contribute any meaning as it lacks semantic and syntactic features. Becker (2000) argues that a finite copula reflects morpho-syntactically a finite inflection (Infl) node when there is no verb in the construction. This type of verb is usually followed by a determiner phrase (DP), a prepositional phrase (PP), or an adjectival phrase (AdjP). There are two types of predicates that may occur with copula verbs: individual-level predicates (IL predicates) and stage-level predicates (SL predicates). The former denote permanent or intrinsic characteristics of the subject, and they are typically DPs, as example (1) below shows, while the second indicate temporary or accidental features of the subject, and they are typically expressed by a PP, as it can be observed in example (2).

- | | | |
|---|------------------------|----|
| (1) a. Peter is a man. | ENGLISH | IL |
| b. Pedro es un hombre. [Peter is man] | SPANISH | IL |
| c. Петър е мъж. 'Petar e maj' [Peter is a man] | BULGARIAN ² | IL |
| (2) a. Peter is in the supermarket. | ENGLISH | SL |
| b. Pedro está en el supermercado. [Peter is in the supermarket.] | SPANISH | SL |
| c. Петър е в магъзина. 'Petar e v magazina' [Peter is in the supermarket] | BULGARIAN | SL |

Adjectives in these three languages are a more complex category as they can belong to the IL and SL groups, as examples (3) and (4) illustrate, depending on their meaning.

- | | | |
|--|-----------|----|
| (3) a. Peter is blond. | ENGLISH | IL |
| b. Pedro es rubio. [Peter is blond] | SPANISH | IL |
| c. Петър е рус. 'Petar e rus' [Peter is blond] | BULGARIAN | IL |
| (4) a. Peter is young. | ENGLISH | SL |
| b. Pedro es joven. [Peter is young] | SPANISH | SL |
| c. Петър е млад. 'Petar e mlad' [Peter is young] | BULGARIAN | SL |

Example (3) illustrates a case in which the adjective is used to designate an intrinsic property of the subject; therefore, it is an IL predicate. Contrarily, example (4) contains an adjective that indicates a temporary characteristic of the subject; consequently, in this case, the adjective behaves as an SL predicate.

While languages such as English (1a, 2a), Spanish (1b, 2b), and Bulgarian (1c, 2c) require an overt copula verb regardless of whether the copula structure is IL or SL, some others languages such as Russian (see example 5) allow the omission of the copula verb especially in the present tense, as indicated by the null element \emptyset .

- | | | |
|--|---------|-----------------------|
| (5) a. Татьяна \emptyset студентка. 'Tatyana \emptyset studentka' [Tatiana (is) a student] | RUSSIAN | (Sarage 2014, p. 120) |
| b. Tatiana is a student. | ENGLISH | |
| c. Tatiana es estudiante. [Tatiana is a student] | SPANISH | |

²The Bulgarian examples will be set in Cyrillic only the first time they are mentioned. Afterwards, their Latin transliteration will only be used.

- d. Татяна е студентка BULGARIAN
 ‘Tatyana e studentka’
 [Tatiana is a student]

However, even in languages where the copula is typically overt, some omission cases do appear, as in (6), in some context-dependent situations where often not only the copula but also the subject are typically null³.

- | | |
|--|-----------|
| (6) a. A: Where are you? | ENGLISH |
| B: ∅ ∅ In the supermarket. [(I) (am) in the supermarket] | |
| b. A: ¿Dónde estás? | SPANISH |
| [Where are you?] | |
| B: ∅ ∅ En el supermercado. [(I) (am) in the supermarket] | |
| c. A: Къде си? | BULGARIAN |
| ‘Kade si?’ [Where are you?] | |
| B: ∅ ∅ В магъзига. ‘V magazina.’ [(I) (am) in the supermarket] | |

From the point of view of the linguistic presentation of predicates, the distinction between nominal (IL) and locative (SL) predicates occurring with copula verbs has also been addressed where semantic and syntactic criteria intertwined (e.g. Carlson 1977, Kratzer 1995, Chierchia 1995).

Carlson (1977) argues for a semantic distinction between nominal and locative predicates. He claims that most locatives (typically PPs) are SL predicates since they apply to stages rather than to individuals. Contrariwise, all nominals are IL predicates as they apply directly to individuals. For him, “a stage is conceived of as being, roughly, a spatially and temporally bounded manifestation of something [...]. An individual, then is (at least) that whatever-it-is that ties a series of stages together to make them stages of the same thing” (1977, p. 15).

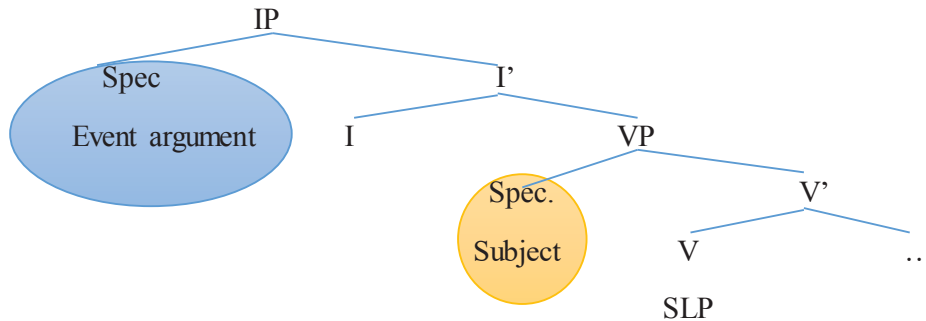
Carlson explains this dichotomy by focusing on the semantic and syntactic characteristics of these predicates. He claims that IL predicates can only have a generic reading, whilst SL predicates can have both generic and existential readings.

Kratzer (1995) draws a semantic distinction between IL and SL predicates in terms of their syntactic structure. According to her, SL predicates project a semantic event

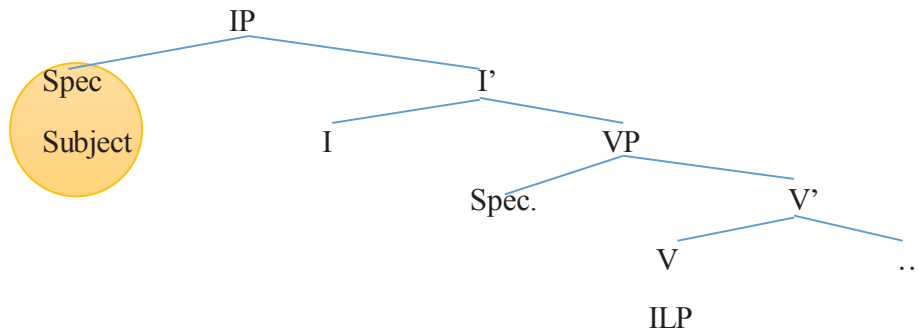
³Null categories are indicated by ∅.

argument which influences the subject position, as it can be observed in the tree diagrams in (7) and (8).

(7) SL predicate



(8) IL predicate



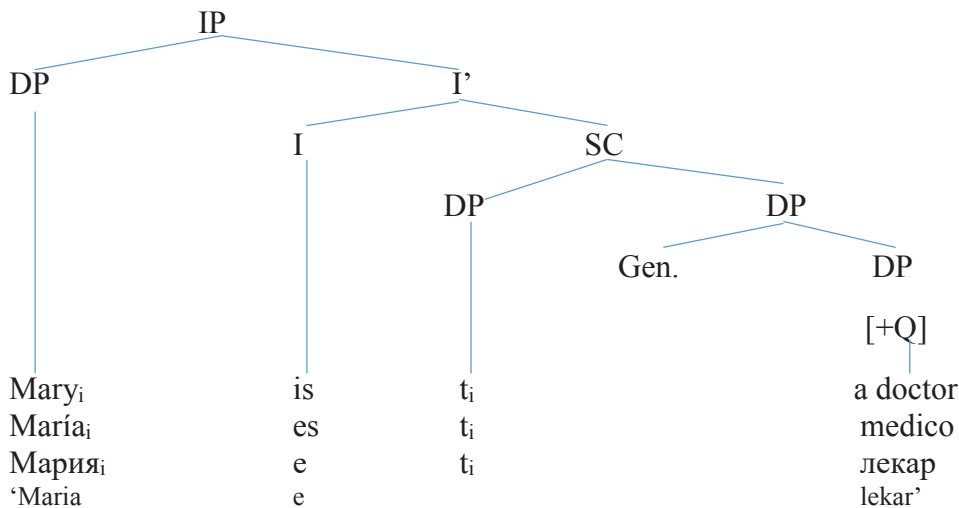
The VP-internal subject hypothesis claims that the subject originates in the specifier of the VP (SpecVP), and, from that position, it can move to the specifier of the IP (SpecIP). In the structure of the SL predicate in (7), the subject remains in SpecVP as SpecIP is occupied by the event argument which is an external argument. In the structure of IL predicates in (8), the subject is generated in SpecIP and occupies this position. This violates the VP-internal subject hypothesis, and that is why Becker (2000) suggests that, as “predicative expressions are raising constructions, [they are] independent arguments for generating the thematic subject low in the structure” irrespective of the nature of the predicate (p. 38).

Kratzer (1995) differs from Chierchia (1995) in that Kratzer assumes that only SL predicates project event arguments, while Chierchia holds that all predicates project this type of argument. In order to support his analysis, Chierchia states that IL predicates are inherently generic, while SL predicates can be generic or not depending on the reading they have in a given context. In IL predicates, the situation variable is locally bound by

the generic operator (Gen-operator); on the contrary, this variable is unbound in SL predicates. The Gen-operator is adjoined to the VP and the situation argument is projected in both nominal and verbal predicates. This is illustrated in example (9).

(9) Mary is a doctor.

(Chierchia 1995, p. 207)

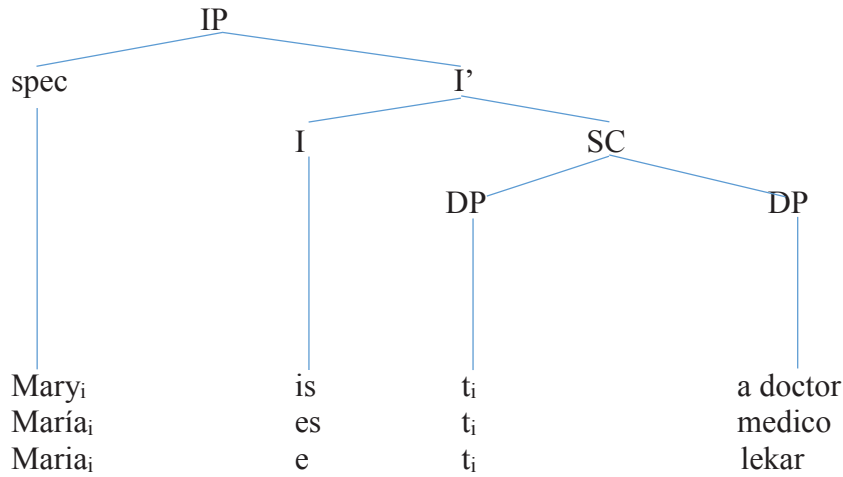


In (9), the [+Q] features must be locally bound by the Gen-operator, but it is only projected in the semantic representation. Chierchia also claims that “the location of IL predicates is unrestricted” (1995, p. 207); thus, sentences like (10) are not rendered ungrammatical, but as strange (thus the question marks preceding the examples). In (10), the locative “in his car” restricts the situations in which “John is a linguist”.

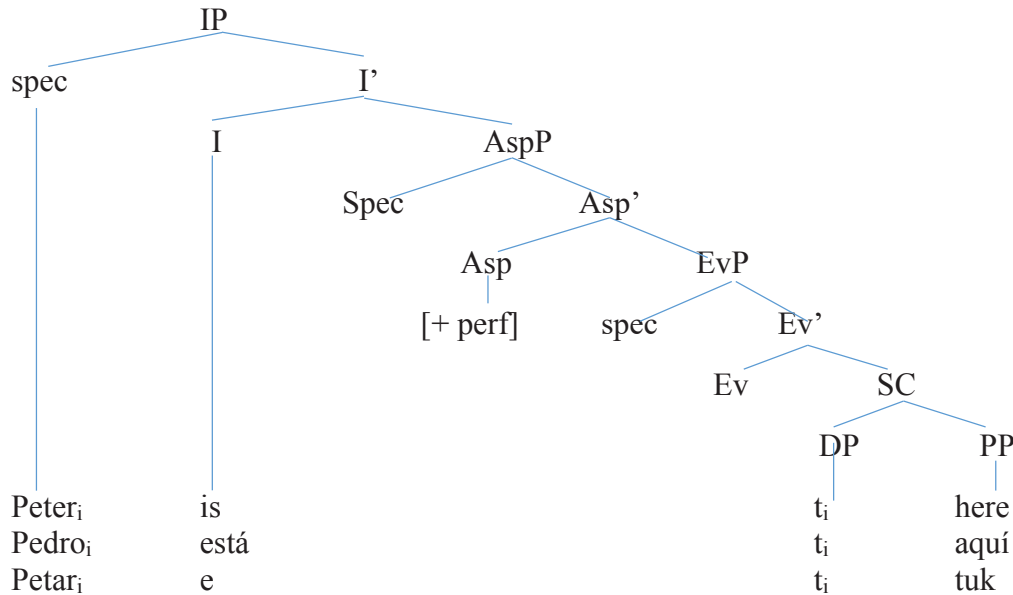
- | | | | |
|------|------------------------------------|-----------|--------------------------|
| (10) | ?? John is a linguist in his car. | ENGLISH | (Chierchia 1995, p. 207) |
| | ?? Juan es lingüista en su coche. | SPANISH | |
| | [?? John is a linguist in his car] | | |
| | ??ДЖОН Е ЛИНГВИСТ В КОЛАТА СИ. | BULGARIAN | |
| | ‘John e lingvist v kolata si’ | | |
| | [?? John is a linguist in his car] | | |

In the grammatical description of copula constructions temporal anchoring, i.e. “the binding relation between tense (T) and tense operator (T_{OP})” has been argued to be a defining factor (Fernández Fuertes and Liceras 2010, p. 529), as developed by Guéron and Hoekstra (1995) and Becker (2000; 2004). What these authors suggest is a relationship between the sentence temporal anchoring and the distinction between IL predicates and SL predicates (Guéron and Hoekstra 1995). This relationship is established between T_{OP} and the inflection category (IP) as in (11) and (12).

- (11) Mary is a doctor. ENGLISH (IL)
 María es médico. SPANISH (IL)
 [Mary is a doctor]
 Maria e lekar. BULGARIAN (IL)
 [Mary is a doctor]

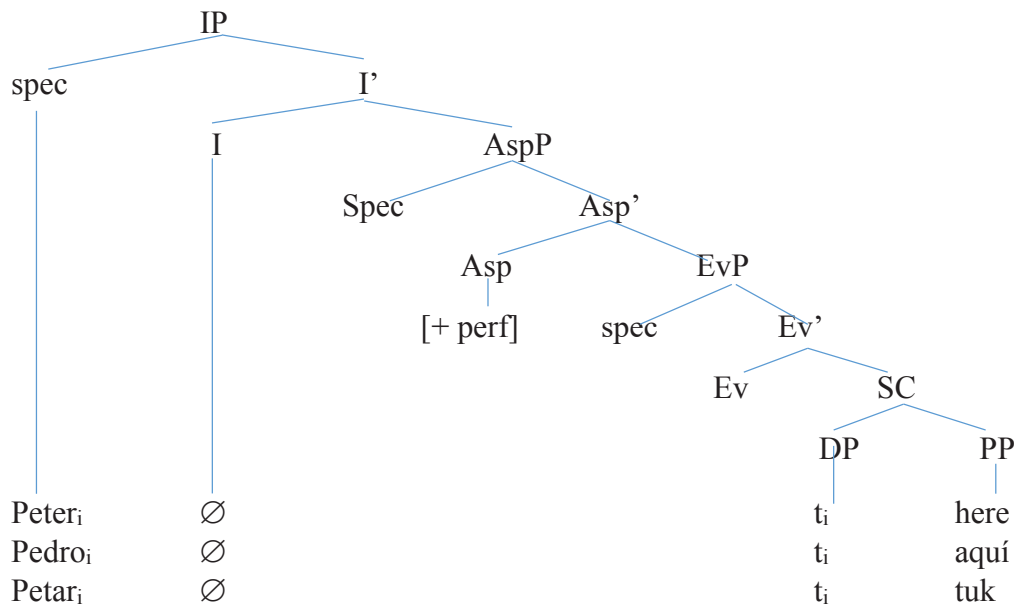


- (12) Peter is here. ENGLISH (SL)
 Pedro está aquí. SPANISH (SL)
 [Peter is here]
 Petar e tuk. BULGARIAN (SL)
 [Peter is here]



However, Becker (2000) suggests that in child grammar, this relation can be created either between the TOP and the aspect category (AspP), as in SL predicates, or between TOP and IP, as in IL predicates, which lack the aspect category. That is why children are likely to omit the copula verb in this type of constructions. In example (13), the temporal anchoring of SL predicates in child grammar is illustrated.

- (13) Child temporal anchoring of SL predicates:
 Peter \emptyset here. ENGLISH
 Pedro \emptyset aquí. SPANISH
 [Peter (is) here]
 Petar \emptyset tuk. BULGARIAN
 [Peter (is) here]



In this example, the copula is omitted, and temporal anchoring is ensured by the AspP.

2.2. Differences among the English, Spanish, and Bulgarian copula verbs

The main difference among English, Spanish, and Bulgarian is that English and Bulgarian have one copula, *to be* and *sam* respectively, which is used for both types of predicates, while Spanish uses two different copula verbs, *ser* and *estar*, depending on the type of predicate that follows it, as in (14), (15), and (16).

- (14) a. Peter is a man. ENGLISH
 b. Peter is in the supermarket.
- (15) a. Pedro es un hombre. SPANISH
 [Peter is a man]
 b. Pedro está en el supermercado.
 [Peter is in the supermarket]
- (16) a. Petar e maj. BULGARIAN
 [Peter is a man]
 b. Petar e v magazina.
 [Peter is in the supermarket]

Further differences among the target languages of this dissertation are discussed in 2.2.1. (English), 2.2.2. (Spanish), and 2.2.3. (Bulgarian).

Finally, Carlson (1977) concludes that there are two homophonous verbs *to be*: one which is semantically empty and used when followed by an IL predicate, and another which does have a semantic function and is used when an SL predicate follows it.

2.2.2. The copula verbs in Spanish

The most outstanding feature of this grammatical item in Spanish is that there are two different copula verbs (i.e. *ser* and *estar*); therefore, the distinction between IL and SL predicates is made even clearer than in other languages since nominal predicates tend to occur with *ser* and locative predicates with *estar*. In the case of adjectives, it is more difficult to determine with which copula verb each type of adjective occurs as it depends on the context, and on how the adjective is used. However, this IL-*ser* and SL-*estar* correspondence does not capture the intricate patterns of Spanish copulas, as discussed below.

In Spanish, all nominal predicates occur with *ser* irrespective of whether they are IL or SL predicates. In other words, regardless of the semantic properties that the nominal denotes, a nominal predicate occurs with the copula *ser*, as illustrated in examples (21) and (22) below.

- | | | | |
|------|--|----|---------------------|
| (21) | Pedro es un hombre. [Pedro is a man] | IL | |
| (22) | Elisa fue reina por un día. [Elisa was queen for a day] | SL | (Sera 1992, p. 409) |

Example (21) illustrates a structure in which the nominal indicates an intrinsic characteristic to the subject; therefore, it is an IL predicate. However, example (22) shows a copula construction in which the nominal predicate denotes a temporary characteristic of the subject using the verb *ser*. In the second case, an SL predicate is used.

Being location a temporary characteristic, these predicates are expected to appear with the copula *estar*, yet locations of events occur with *ser*, while locations of objects and animate entities occur with *estar*, as in (23), (24), and (25) respectively.

- | | | |
|------|--|----|
| (23) | La merendola es en el pinar. [The picnic is in the pine forest] | SL |
| (24) | María está en la universidad. [María is at the university] | SL |
| (25) | Mi casa está en Valladolid. [My house is in Valladolid] | SL |

Some adjectives are able to occur with either copula denoting different meanings, as shown in examples (26) and (27).

- | | | |
|------|--|----|
| (26) | El color blanco es sucio. [White is a dirty color] | IL |
| (27) | La camisa blanca está sucia. [The white t-shirt is dirty] | SL |

In these examples, it can be observed that, even though the same adjective is used (*sucio/sucia* ‘dirty’), an intrinsic property of the subject is shown in (26), while, in (27), the characteristic is accidental.

Another aspect regarding adjectives is that, some of them, which typically appear with *ser* in certain contexts, are allowed to occur with *estar*, as in (28) and (29).

- | | | |
|------|--|----|
| (28) | La película es interesante. [The movie is interesting] | IL |
| (29) | La película está interesante. [The film is interesting (now)] | SL |

The adjective *interesante* (‘interesting’) typically occurs with the copula verb *ser*, as in (28), where an IL predicate can be found. However, in certain contexts, this adjective is allowed to occur with the other copula verb, *estar*, causing a slight change in the meaning, and transforming the predicate from an IL into an SL predicate, as in (29). A different nuance can then be said to appear between (28) and (29).

Finally, there are adjectives which are expected to appear with the copula *ser*, but they occur with *estar*, as in (30), and vice-versa, as in (31).

- | | | |
|------|---------------------------------------|----|
| (30) | Pedro está muerto. [Peter is dead] | IL |
| (31) | Pedro es joven. [Peter is young] | SL |

Since *muerto* (‘dead’) indicates a permanent characteristic of the subject, that is, it is an IL predicate, it is expected to occur with the copula *ser* instead of *estar*. On the contrary, denoting *joven* (‘young’) a temporary characteristic of the subject, it is expected to appear with the copula *estar* instead of *ser*.

As seen below, generally speaking, in Spanish, the copula *ser* is used in clauses which denote permanent or essential characteristics of the subject, while *estar* is used in clauses which indicate temporary or accidental characteristics of the subject. However, this is just

a tendency, rather than a grammatical principle per se. This dichotomy has been more specifically addressed by Schmitt et al. (2004, p. 2) as well as by other authors following a semantic, a pragmatic, and a syntactic-semantic perspective, as shown below.

The semantic accounts, which involve some pragmatic consequences, hold that the difference between *ser* and *estar* is aspectual (Schmitt 1992; 2004). The former lacks any aspectual content, “i.e. it is unspecified for a subevent type (STATE, EVENT) and therefore can appear in various different contexts” (Schmitt et al. 2004, p. 2). On the contrary, *estar* indicates a subevent of the EVENT type. Consequently, the tendency of *estar* to occur with temporary predicates is due to the fact that it asserts eventuality, which *ser* does not since it is devoid of aspectual properties.

As argued by Schmitt and Miller (2007), both *ser* and *estar* are stative predicates. Stativity can be understood in two ways: as being a-temporal (Bach 1981) or as indicating state. In this case, states are defined as “having the subinterval property [...] every open subinterval I’ of an open interval I where a state is true is also an interval where the same state is true” (Schmitt and Miller 2007, p. 1913). All this leads to the distinction between *ser* and *estar*. The former is semantically empty, hence, there is no reference to temporal subevents or intervals. Because of this lack of inherent meaning, *ser* can be used with participles, it can be shifted to temporary by means of adverbs, and it can be used to represent activity reading (BE ACT). From all this, it can be concluded that the only role of *ser* is to lexicalize tense. Conversely, *estar* “contributes to the VP a subevent of the (STATE) type, so it carries the implicature that the state does not always hold beyond the relevant interval” (Pérez-Leroux et al. 2010, p. 211).

The pragmatic accounts establish that *ser* and *estar* differ in that the latter presupposes a discourse anchorage which the former does not (Clements 1988; Maeinborn 2003). Therefore, speakers are allowed “to mark different predication in a particular discourse” (Schmitt et al. 2004, p. 2).

The syntactic-semantic accounts claim that the differentiation between *ser* and *estar* corresponds to the lexical reflection of the distinction between IL and SL predicates (Diesing 1992; Lema 1995). This distinction is both semantic and syntactic as SL predicates project an Event argument which IL predicates do not, and they differ in their syntactic mapping.

Camacho (2012) reviews several accounts about the Spanish copula verbs. This author claims that *ser* is the unmarked copula verb as it has the opposite value of *estar*, i.e. *ser* is [-Perfective]. Therefore, the problem arises when dealing with *estar*. Following Fernández Leborans (1995), Camacho claims that the copula verb *estar* entails an event, which is comprised of a transition (T) and an end state (ES). According to this author, although T establishes a relationship with another event, it is sometimes hard to perceive as in evidential constructions of *estar*, as in (32). Besides, ES should not always be understood as the consequence of an event.

- (32) Este jamón serrano está fenomenal⁴. SL (Camacho 2012, p. 8)
 [This serrano ham is phenomenal]

According to Zagona (2010), *estar* contains a prepositional feature, [*uP*], which must be checked by the predicate. This predicate should have two basic features: (i) “it must be prepositional [and (ii)] it cannot contain a certain lexical-aspectual content [that is] Path” (Camacho 2012, p. 464). Consequently, sentences such as (33) are not grammatical in Spanish, while sentences as (34) are.

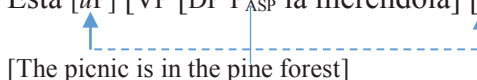

- (33) *María está camarera.
 [María is a waitress]

- (34) María está de camarera.
 [María is a waitress]

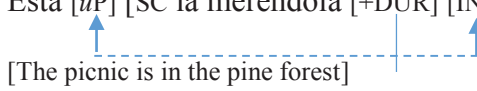

Example (33) is ungrammatical because the predicate that the verb *estar* takes is a DP, therefore, it is not prepositional, and the [*uP*] feature cannot be checked. Being the predicate in (34) both prepositional and not indicating a Path, it allows for the checking of [*uP*], and the sentence is grammatical.

As it has been abovementioned, some locatives in Spanish occur with the copula *estar* and others with the copula *ser*, depending on the type of subject they take, eventive or non-eventive. The former involves a Path interpretation which blocks the checking of [*uP*] by the lower P, as in (35) (where blocking is signaled by a vertical line), while the latter, (36), entails a pure-location interpretation and the checking of the [*uP*] feature is possible.

⁴ This example only appears in the online version of the chapter that Camacho has published in his official website (<http://rci.rutgers.edu/~jcamacho/publications/ser-estar.pdf>), but not in the chapter included in *The Handbook of Hispanic Linguistics*.

- (35) La merendola está en el pinar.
 Está [μ P] [VP [DP P_{ASP} la merendola] [P en [el pinar]]]

 [The picnic is in the pine forest]
- (36) María está en la universidad.
 Está [μ P] [VP [DP María] [P en [la universidad]]]

 [María is at the university]

As *estar* is considered [+Perfective], it should encompass beginning or end boundaries. According to Camacho, *estar* selects for the beginning boundary of a state; consequently, Zagona's (2010) rule is reformulated as follows: *estar* contains an uninterpretable feature [μ P] which has an inchoative value [INCH]. Therefore, the analysis of sentences (23) and (24) is reformulated as in (37) and (38) below. In (37), the [μ P] feature cannot be checked because the [+DUR] feature of the eventive subject blocks it.

- (37) La merendola está en el pinar.
 Está [μ P] [SC la merendola [+DUR] [INCH] en el pinar]

 [The picnic is in the pine forest]
- (38) María está en la universidad.
 Está [μ P INCH] [VP María [INCH] en la universidad]

 [María is at the university]

All in all, this section illustrates that the distinction between IL and SL predicates in Spanish does not correspond to the *ser/estar* distinction since there is not a straightforward and complete correspondence. Consequently, the use of *ser* or *estar* is motivated by factors other than the IL/SL dichotomy.

2.2.3. The copula verb in Bulgarian

A relevant feature of the Bulgarian copula verb is that it is considered a clitic in the present tense, but not in the past or in the future tenses (Hauge 1995). It is considered a clitic because it follows all the rules that are applied to these morphemes. First of all, as Bulgarian is a [+ null subject] language, the copula verb is expected to be able to appear in sentence initial position irrespective of the tense; however, this is not possible in the present tense, as depicted in (39).

- (39) *Е в магазина.
 '*E v magazina'
 [*(he/she/it) is in the store]

As Spencer (2000) holds, Bulgarian copula verb in the present tense is sensitive to the Tobler-Mussafian Law which does not allow clitics to appear sentence initially. Therefore, a clitic in Bulgarian such as the copula verb must “be placed on the right of a word [and] initial in its syntactic/prosodic domain” (Spencer 2000, p. 371). As such, the corresponding grammatical example to (39) should be as in (40).

- (40) Toi e v magazina.
 ‘Toi e v magazina’
 [He is in the store]

Legendre (2000) and Spencer (2000) apply the Optimality Theory (OT) developed by Prince and Smolensky (1993) to the Bulgarian clitics. First of all, the aim of OT is to rank the different constraints in a grammar “in a *strict hierarchy dominance*” (Prince and Smolensky 1993, p. 2). Hence, in Bulgarian the NONINITIAL constraint dominates EDGEMOST, i.e. EDGEMOST is violated in order to satisfy NONINITIAL which is in a higher position in the classification of the constraints that apply to Bulgarian clitics. The result is that the clitics in Bulgarian must appear in second position or, if it is a clitic cluster, the first clitic must occupy the second position in the sentence. According to Legendre (2000), the domain of NONINITIAL is V’; therefore, it is correct to claim that the clitic occupies the second position in null subject constructions given the basic ranking NONINITIAL>EDGEMOST, as in (41).

- (41) В магазина съм.
 ‘V magazina sam’
 [In the store (I) am]
 [I am in the store]

Moreover, when the subject of the clause is overt, the clitic cannot appear in other position but the second, as examples (42) and (43) illustrate.

- (42) Аз съм в магазина.
 ‘Az sam v magazina’
 [I am in the store]
- (43) *Аз в магазина съм.
 ‘*Az v magazina sam’
 [*I in the store am]

However, if V’ is the domain of NONINITIAL, then (43) should be grammatical and (42) ungrammatical as (42) violates the higher-ranked constraint NONINITIAL. The domains of the clauses in (42) and (43) are presented in (44) and (45) respectively.

- (44) [VP/IntP Az [V’ sam v magazina]]
 [VP/IntP I [V’ am in the store]]

- (45) * [VP v magazina [IntP/V' sam]]
 * [VP in the store [IntP/V' (I) am]]

In the case of (44) where there is an overt subject, there is no conflict between EDGEMOST and NONINITIAL constraints because the intonational domain of NONINITIAL and the syntactic domain of EDGEMOST are different. Contrariwise, in (45), where a null subject is found, the intonational and the syntactic domains coincide; consequently, EDGEMOST is violated in order to satisfy the higher-ranked constraint NONINITIAL.

Nevertheless, the Bulgarian copula verb is only claimed to be a clitic in its present tense forms, as in all the other tenses, it behaves as a lexical verb. Hence, in the past, the Bulgarian copula verb can occupy initial position like in Spanish, as illustrated in example (46).

- (46) Бях в магазина.
 'Bqh v magazina'
 [(I) was in the store]

In the future, the Bulgarian copula verb does not occupy the initial position as this tense is formed with a future particle, which appears in bold type in the examples in (47) and (48).

- (47) **Ще** бъда в магазина.
 'Shte buda v magazina'
 [(I) will be in the store]
- (48) Аз **ще** бъда в магазина.
 'Az shte buda v magazina'
 [I will be in the store]

As Hauge claims, this future particle is non-movable; therefore, "it will always appear to the left of the verb [...], and it may stand at the very beginning of the sentence or after an intonational pause" (1995, p. 105). That is, it appears either in sentence initial position (as in 45, given the use of a null subject) or after the overt subject of the clause (as in 46), but it will never follow the predicate unless there is an emphatic movement such as fronting.

3. Empirical background

Previous works on the acquisition of the English and Spanish copulas have discussed the type of predicate the copula verb takes in a particular sentence, i.e. IL predicate or SL predicate (e.g. Becker 2004; Skinner 2005; Gaulin 2008; Silva-Corvalán and Montanari

2008; Fernández Fuertes and Liceras 2010; Holtheuer and Rendle-Short 2013; Holtheuer 2013). Generally speaking, as it has been discussed in previous sections, the former denotes permanent characteristics of the subject whilst the latter indicates temporary characteristics of the subjects, as it can be observed in examples (1) and (2) above which are repeated here in (49) and (50).

- | | | |
|------|--|-----------|
| (49) | a. Peter is a man. | ENGLISH |
| | b. Pedro es un hombre. [Peter is a man] | SPANISH |
| | c. Petar e maj. [Peter is a man] | BULGARIAN |
| (50) | a. Peter is in the supermarket. | ENGLISH |
| | b. Pedro está en el supermercado. [Peter is in the supermarket] | SPANISH |
| | c. Petar e v magazina. [Peter is in the supermarket] | BULGARIAN |

The review of the acquisition works concerned with the analysis of the copula verbs is divided into three subsections: those works focused on L1 English, those that discuss L1 Spanish, and those that deal with 2L1 acquisition. No reference is made here to the acquisition of the copula verb in Bulgarian, the third target language in the present dissertation, as no previous research on this topic has been found.

3.1. L1 acquisition of the English copula verb

The acquisition of the English copula verb by L1 English speakers has been previously discussed in Becker (2004) and Skinner (2005). Becker (2004) establishes that at the early stages of language acquisition (around the age of 2), children go through a period of copula omission, as examples (51) and (52) illustrate.

- | | | |
|------|-----------------------------------|-----------------------|
| (51) | That ∅ cuckoo fish. (Naomi, 2;05) | (Becker 2004, p. 164) |
| (52) | Foot ∅ in the water. (Nina, 2;00) | (Becker 2004, p. 164) |

She explains this period of omission of the English copula verb by using a grammar-based explanation, i.e. based on the distinction between IL and SL predicates, and a processing-based explanation, which is concerned with the length of the utterances. If a grammar-based account holds then she expects that there is a syntactic pattern for the omission of the copula verb in English, and so more omission is expected in SL than in IL predicates given their syntactic properties (see section 2.1.). Contrarily, if a processing-based account holds, then Becker expect that children will produce short utterances containing a copula verb, while the long utterances they produce will lack such a verb.

The results she obtains from the four English monolingual children, whose data are taken from the CHILDES Project (MacWhinney 2000), appear in table 1:

Table 1. Overt *be* by predicate type

| Child | Nominal predicates | Locative predicates | Adjectives | |
|--------------|--------------------|---------------------|------------|------------|
| | | | IL | SL |
| Nina | 143 (74.1%) | 115 (13%) | 24 (62.5%) | 39 (43.6%) |
| Peter | 398 (86.4%) | 90 (18.9%) | 28 (57.1%) | 86 (51.2%) |
| Naomi | 122 (90.2%) | 30 (33.3%) | 29 (93.5%) | 65 (52.3%) |
| Adam | 302 (52%) | 26 (7.7%) | 35 (37.5%) | 105 (41%) |
| Total | 76.3% | 18.8% | 62.6% | 47% |

(adapted from Becker 2004, pp. 159-161)

What these data show is that these children produce more over copula verbs with nominal (76.3%) or IL-adjective predicates (62.2%) than with locative (18.8%) or SL-adjective predicates (47%).

Table 2. Overt *be* by the sentence length and predicate type

| Sentence length | Nominal predicates | Locative predicates |
|--------------------|--------------------|---------------------|
| Two words | 206 (73.8%) | 28 (42.9%) |
| Three words | 457 (75.3%) | 73 (12.3%) |
| Four words | 216 (73.6%) | 107 (15.9%) |
| Five words | 54 (74.1%) | 35 (14.3%) |

(adapted from Becker 2004, p. 163)

What these data show is that, even if the copula constructions are classified by sentence length, there is a significant difference between the amount of overt copula verbs found with nominal predicates and with locative predicates. Moreover, it can be observed that there is a decrease in the amount of overt copula verbs as sentences become longer; consequently, although predicate type emerges as a determinant factor, sentence length may also play a role in the production or omission of this grammatical item.

This leads Becker to conclude that the grammar-based explanation, which relies on the distinction between IL and SL predicates, accounts better than the processing-based one for this phenomenon of copula omission in English early grammars.

Skinner (2005) examines the English copula verb in the *wh*-questions which appear in the early stages of language acquisition since statements and *wh*-questions differ in that the latter require a movement from IP to CP of the *wh*-element, and this may interact with the requirements of the copula. His main aim is to compare the production of the English copula verb in *wh*-questions and that in declarative statements in order to find out if the

omission of the copula verb is similar in both clause types. In order to carry out his study, Skinner analyzes data elicited from Nina, Peter, and Naomi available in CHILDES and compares his results for *wh*-questions with those obtained by Becker (2000) for statements.

Table 3. Overt *be* by clause and predicate type

| Child | Declarative | | Wh-question | |
|--------------|-------------|------------|-------------|-------------|
| | IL | SL | IL | SL |
| Nina | 16 (75%) | 31 (41.9%) | 1 (100%) | 26 (80.8%) |
| Peter | 16 (81.3%) | 54 (55.6%) | 98 (100%) | 109 (87.2%) |
| Naomi | 8 (87.5%) | 29 (34.5%) | 21 (100%) | 22 (77.2%) |
| Total | 81.3% | 44% | 81.7 | 100% |

(adapted from Skinner 2005, p. 5)

These data show that these children produce more overt copula verbs with IL predicates irrespective of whether they are in declarative (81.3%) or *wh*-interrogative clauses (81.7%). Moreover, it shows that the rate of omission of the English copula verb in the case of these children is substantially higher in declarative clauses containing an SL predicate (44%) than in interrogative clauses containing the same type of predicate (100%).

He concludes that the rate of omission of the copula verb in *wh*-questions is similar to that of declarative statements, and that this is higher with SL predicates. Therefore, as Becker (2004) claims, the syntactic properties of the clause play an important role in the production or omission of the copula verb in early child grammar.

3.2. L1 acquisition of the Spanish copula verbs

The acquisition of the Spanish copula verbs, *ser* and *estar*, has been addressed by researchers such as Holtheuer and Rendle-Short (2013) who focus on the acquisition of this type of verbs in relation with adjectives and the input children receive. In order to carry out this study, the authors have elicited data from 10 L1 Spanish children and their main caretakers. The aim is to investigate how children extract linguistic information from parental input. The results these authors obtained are presented in table 4.

Table 4. L1 Spanish copula production

| Child | Total copula production | Number of errors | Errors corrected by parents |
|-----------|-------------------------|------------------|-----------------------------|
| 1 | 75 | 20 (26.7%) | 10 (50.0%) |
| 2 | 33 | 19 (57.6%) | 11 (57.9%) |
| 3 | 41 | 17 (41.5%) | 0 (0.0%) |
| 4 | 34 | 13 (38.2%) | 4 (30.8%) |
| 5 | 54 | 18 (33.2%) | 10 (55.6%) |
| 6 | 60 | 21 (35.0%) | 8 (38.1%) |
| 7 | 121 | 5 (4.1%) | 4 (80.0%) |
| 8 | 42 | 7 (16.7%) | 6 (85.7%) |
| 9 | 56 | 14 (25.0%) | 4 (28.6%) |
| 10 | 69 | 35 (50.7%) | 9 (25.7%) |

(adapted from Holtheuer and Rendle-Short 2013, p. 162)

These results show that those participants who produce a higher amount of copula constructions produce fewer errors. In addition, it can be observed that one parent does not correct the errors of his or her child at all while the amount of correction of the other parents vary.

In order to determine if children benefit from parental input, these authors correlated the amount of corrective input and the amount of errors children produced. If their hypothesis is true, there should be a negative correlation between the amount of errors and that of correction, and this is what they actually found in the data.

Another study by Holtheuer (2013) concentrates on how children benefit from their input to acquire the Spanish copula verbs, *ser* and *estar*, with adjectives. The main purpose is to study what type of linguistic information is present in the input of the children. As adjectives are a more complex category as part of the predication of copula constructions, children are required to know the syntax, semantics, and pragmatics of *ser* and *estar* as well as how they are used with the different adjective types. Holtheuer presents three hypotheses: firstly, she holds that, given that *estar* contains an additional layer (i.e. AspP), *ser* is acquired earlier. Secondly, she claims that the subset interpretation is acquired first and, considering *estar* a subset of *ser*, the former is acquired earlier. Finally, she argues that the usage frequency benefits acquisition.

In order to confirm her hypotheses, Holtheuer elicits data from 11 children from Santiago de Chile, Chile. Some of these children were recorded while interacting with their parents, while others were communicating with their siblings. The results of this study are presented in table 5.

Table 5. Frequency of *ser* and *estar* in the children's production and input

| | <i>Ser</i> | <i>Estar</i> | Total |
|-----------------|-------------|--------------|-------|
| Children | 37 (45.1%) | 45 (54.9%) | 82 |
| Input | 168 (48.6%) | 178 (51.4%) | 346 |

(adapted from Holtheuer 2013, p. 35)

These data illustrate that more constructions of the type *estar* + adjective were found both in the input children received and in their own productions.

This author concludes that the children's usage of *ser/estar* + adjective is adult-like and, as it is the case of the data analyzed from their input, children do not produce many copula constructions with adjectives. However, with respect to the type of adjectives, this author establishes that children's copula choice is closely linked to the semantic and morphological properties of the adjectives with which copulas appear.

3.3. 2L1 acquisition of the English and Spanish copula verbs

In the case of 2L1 bilingualism, studies such as that conducted by Silva-Corvalán and Montanari (2008) who deal with the acquisition of the Spanish copula verbs in a 2L1 English/Spanish child can be found. These authors analyze the production of Nico, a 2L1 English/Spanish child, from the age of 2;00 until the age of 3;00. They study the cross-linguistic influence that may exist and the distributional frequency of the copula constructions in the child's speech in relation to that of the adults. Their data are summarized in table 6 below.

Table 6. *Be*, *ser*, and *estar* used as copula verbs

| Participant | <i>Be-copula</i> | <i>Ser-copula</i> | <i>Estar-copula</i> |
|---------------|------------------|-------------------|---------------------|
| Nico | 218 (73.6%) | 158 (39.5%) | 165 (41.3%) |
| Adults | 71 (60.7%) | 161 (41.0%) | 144 (36.6%) |

(adapted from Silva-Corvalán and Montanari 2008, p. 346)

These data show that, in the case of the English copula verb, the amount of production of the child is slightly superior to that of the adults. In the case of the Spanish data, the scenario is different. Regarding the copula *ser*, the amount of copula constructions produced by the adults is higher than that produced by the child, while, in the case of *estar*, the child's production of copula constructions is higher than that of the adults. Besides, it can be observed that the difference between the adults' production and the child's production in English is higher than that in Spanish irrespective of the copula verb.

Other issues that these authors discuss are the conceptual frames in which each copula occur, the occurrence of the English and Spanish copula verbs regarding the type of predicate from the point of view of the type of phrase that the copulas take, and the tense of the copula verbs that are present in the adult and the child output.

They conclude that copula constructions develop autonomously in this child as it seems that there is no bilingual effect, that is, no interference between English and Spanish in his production has been found. Regarding the distributional analysis, they conclude that there is a parallelism between the use of copula constructions by this child and by the adults; therefore, the interaction between the child and the surrounding adults guides the acquisition of copula constructions.

Gaulin (2008) investigates the acquisition of the Spanish and English copula verbs in 2L1 English/Spanish speakers from the FerFuLice corpus in CHILDES. The purpose of this study is to understand the possible cross-linguistic influence within language use. She establishes that previous studies show that L1 English speakers, at the age of 2, tend to omit the copula verb, but it seems that this does not happen in the case of the L1 Spanish children. Gaulin compares monolingual and bilingual data. Her results of the bilingual data are presented in the following table:

Table 7. Copula structures in the FerFuLice corpus

| Child | Nominal predicates | | Locative predicates | |
|--------------|--------------------|-------------|---------------------|-------------|
| | Overt copula | Null copula | Overt copula | Null copula |
| Leo | 114 | 12 | 22 | 3 |
| Simon | 126 | 11 | 25 | 2 |

(adapted from Gaulin 2008, p. 30)

These data show that bilingual children barely produce cases of null copula. Consequently, it seems that these children have acquired the copula verb by the age of 3;11 when the study ends.

All in all, Gaulin finds out that, in the English data, the bilingual children show some cases of omission, but to a lesser degree than the monolinguals. As far as the Spanish bilingual data are concerned, these children do not produce any cases of omission with either of the two Spanish copula verbs. Therefore, this author concludes that the Spanish language system influences the English one, but the latter does not influence the former. Consequently, she claims that, in the case of bilingual speakers, there seems to be cross-

linguistic influence from one language into the other but with a specific directionality (i.e. from Spanish into English).

Fernández Fuertes and Licerias (2010) deal with the English copula verb in 2L1 English/Spanish children compared to their monolingual counterparts as analyzed by Becker (2004). These authors establish three hypotheses: firstly, they argue that if both monolingual and bilingual children follow the same developmental path, higher omission rates will be found with SL predicates than with IL predicates in the 2L1 data, as it happens in the English monolingual data analyzed by Becker (2004). Secondly, they claim that if there is transfer from Spanish into English, the omission of the copula verb with SL predicates will be higher than that of monolingual speakers as the double lexicalization of the Spanish copula verb (i.e. *ser* and *estar*) makes the difference between both types of predicates more obvious. Finally, the two copulas in Spanish can positively affect English by means of accelerating the acquisition of the English copula verb, and consequently bilinguals will produce fewer instances of omission than monolinguals.

These authors compare their data with that of Becker (2004) and such comparison appears in table 8:

Table 8. Bilingual and monolingual copula structures

| Child | Nominals (IL) | Locatives (SL) | Adjectives | |
|-----------------------------|---------------|----------------|------------|-------------|
| | | | IL | SL |
| Leo [2L1 EN/SP] | 115 (90.5%) | 22 (88.0%) | 32 (91.4%) | 26 (86.6%) |
| Simon [2L1 EN/SP] | 125 (91.1%) | 25 (89.2%) | 46 (95.8%) | 23 (95.8%) |
| Nina [L1 EN] | 143 (74.1%) | 115 (13.0%) | 24 (62.5%) | 39 (43.6%) |
| Peter [L1 EN] | 398 (86.4%) | 90 (18.9%) | 28 (57.1%) | 86 (51.2%) |
| Naomi [L1 EN] | 122 (90.2%) | 30 (33.3%) | 29 (93.5%) | 65 (52.3%) |
| Adam [L1 EN] | 302 (52.0%) | 26 (7.7%) | 35 (37.1%) | 105 (41.0%) |

(adapted from Fernández Fuertes and Licerias 2010, pp. 539-541)

These data show that both bilingual and monolingual children produce more overt copula *be* with nominal predicates than with locative predicates. However, if the rate of production of the English copula verb with locative predicates is compared between bilingual and monolingual speakers, it can be observed that the bilingual children's rate is much higher than that of the monolingual children. Furthermore, except in the case of

Adam, the data present a higher production of the English copula verbs with IL-adjectives than with SL-adjectives. Finally, the same happens if the production of copula verbs with SL-adjectives is compared between the two types of speakers since the bilingual children show a higher rate of production than their monolingual counterparts.

These authors conclude that, contrary to what Becker (2004) found, the difference in the omission of English copula verbs with both types of predicates is not significant in the case of bilingual English. What is more, the rate of omission they found in the 2L1 data is rather scarce which they suggest points to Spanish accelerating the acquisition of this grammatical item.

In a nutshell, Becker (2004) and Skinner (2005) have demonstrated that L1 English speakers show higher rates of omission of the English copula verb with SL predicates both in declarative and interrogative clauses. Regarding the monolingual acquisition of the Spanish copula verbs, it has been found out by Holtheuer and Rendle-Short (2013) and Holtheuer (2013) that children's selection of the Spanish copula verbs is related to the semantic and morphological properties of the adjectives with which they appear; therefore, children make linguistic generalizations irrespective of the input they receive. Finally, with respect to 2L1 English/Spanish acquisition of the copula verbs, Silva-Corvalán and Montanari (2008) found out that the acquisition of the copula verbs both in English and Spanish is determined by the input that the child receives. Gaulin (2008) compared the bilingual and monolingual acquisition, and concluded that there is omission of the copula verbs in SL predicates in the case of both types of speakers, but the it is lower in the case of the bilingual children. Finally, Fernández Fuertes and Liceras (2010) investigated the acquisition of the English copula verb in the case of two 2L1 English/Spanish bilingual children and demonstrated that the omission of the copula verb with SL predicates in the case of the bilingual data is rather scarce, and that their bilingualism accelerates the acquisition of the English copula verb. Finally, as it has been established at the beginning of this section, no previous empirical studies have been found about the Bulgarian copula verb.

4. Hypotheses

In this section, I present my main hypotheses for this dissertation which are linked, firstly, to the production of the English, Spanish, and Bulgarian copula verbs regarding the predicate type they take, i.e. IL or SL predicates. Secondly, I consider the bilingual effect that may exist in the English and Spanish bilingual data in contrast with their L1 counterparts. As it has been previously mentioned, Bulgarian bilingual data cannot be compared with L1 Bulgarian data since no corpus is available on L1 Bulgarian. Finally, I consider language dominance in the two language pairs (English/Spanish and Bulgarian/Spanish) in order to determine which is the dominant language of these children, and in which language the grammatical item at stake is acquired sooner.

In line with Becker (2000; 2004) and Skinner (2005), my first hypothesis focuses on copula omission. I argue that in the one-copula languages (i.e. English and Bulgarian), the participants are expected to omit the copula verbs more with SL predicates as opposed to IL predicates, since they temporally anchor these clauses by Asp rather than by Infl. Contrarily, and in line with Fernández Fuertes and Liceras (2010) and Gaulin (2008), I argue that the omission of the copula verbs in Spanish, the two-copula language, is not related to predicate type.

My second hypothesis investigates if there is bilingual effect in the bilingual acquisition of the Spanish and English copula verbs. There are four possible scenarios when comparing bilingual and monolingual data in this respect: firstly, there may be acceleration from one language into the other, i.e. the bilingual children acquire this grammatical structure before the respective monolinguals. Secondly, there may be delay, which means that the bilingual children acquire this grammatical feature later than their monolingual counterparts. Thirdly, there may be no bilingual effect, that is, the monolingual children and the bilingual children acquire the copula verb properties at the same pace. These first three scenarios deal with the developmental process followed by bilinguals and monolinguals. Finally, and considering the data overall instead of developmentally, there may be transfer from one language into the other, that is, the properties of one L1 might be transferred into the other L1 and, in this case, the issue of directionality renders two possibilities depending on which language is being transferred; that is, whether transfer occurs from the one-copula language into the two-copula one or the other way around. The initial working hypothesis is that there is no bilingual effect in their English and their Spanish production so that bilingual English is like L1 English,

and bilingual Spanish is like monolingual Spanish, in the line of Silva-Corvalán and Montanari's (2008) work.

My third hypothesis deals with language dominance from the point of view of the GFSH as developed by Licerias et al. (2008). The GFSH argues that depending on the characteristics that a grammatical feature has in a specific language, a bilingual person will be dominant, in terms of a particular grammatical feature, in the language in which this grammatical feature has more salient properties. Hence, in the case of the copula verbs, I claim that the children from the FerFuLice corpus are Spanish dominant as in this language the copula verb is lexically specialized. This means that, depending on the type of predicate that the clause contains, the use of one copula or the other is required, whereas in English the same copula is used for all predicate types. In the case of the 2L1 Spanish/Bulgarian child, I claim that she is also Spanish dominant because, although the Bulgarian copula verb has the peculiarity of being a clitic, only one copula verb is used for both IL and SL predicates. Therefore, these three children are expected to acquire the Spanish copula verbs sooner than the English and Bulgarian copula verbs, and no influence is expected from their respected one-copula languages (i.e. English and Bulgarian) into the lexically specialized language (i.e. Spanish).

5. Empirical study

In order to carry out this study, I use data from four corpora: the FerFuLice corpus to study 2L1 English/Spanish acquisition, the Vila corpus to analyze L1 Spanish acquisition, the Sachs corpus in order to study L1 English acquisition, and my own data (the Stankova corpus) to examine the 2L1 Bulgarian/Spanish acquisition. The first three corpora are available in the CHILDES project, and the Stankova corpus has been compiled during the academic year 2015-2016 as part of the research work to elaborate the present master's thesis.

A description of the participants as well as the methodology followed to select and classify the data appear in the subsequent sections.

5.1. Participants

The Vila corpus contains spontaneous data from a Spanish monolingual child, Emilio. He was audio-recorded from the age of 0;11.09 until the age of 4;08.15.

The Sachs corpus is comprised of 93 files containing spontaneous data elicited from one English monolingual child, Naomi. She was recorded from the age of 1;01 until the age of 5;01.

The FerFuLice corpus contains spontaneous data elicited from Simon and Leo who are identical twins born in a mixed middle class family in Salamanca, Spain. These children were video recorded from the age of 1;10.22 until the age of 6;11.00. Their father is a native speaker of Peninsular Spanish, and their mother is an L1 speaker of American English. Each of them addresses the children in his or her native language, i.e. they follow the one parent one language approach, except if there is a monolingual speaker present when they use the L1 of that speaker and in summer when they travel to California, USA. Until the age of 1;10, the main caretaker of the children was their mother; consequently, their main language of communication was English. At that age, they started attending a nursery school where the language of communication with the other children and the staff was Spanish. From all this it can be established that their bilingualism is individual rather than societal (Bathia and Ritchie 2004).

The Stankova corpus includes the spontaneous production of a 2L1 bilingual child, Neli. In this case, the corpus contains longitudinal data recorded from the age of 2;02.26 until the age of 2;09.08. This child was born in a Bulgarian family in Valladolid, Spain. Her parents speak Bulgarian to her while her babysitter addresses her in Spanish. Consequently, she has been exposed to both languages from birth. Until the age of 1;05, her primary caretakers are her babysitter in the mornings and her mother in the afternoons. At this age, she starts attending a nursery school where the language of communication with the rest of the children and the staff is Spanish. The family spends a month in summer in Bulgaria where the only spoken language is Bulgarian. From all this, it can be determined that the type of bilingualism of this child is individual rather than societal as it is the case of the bilingual twins in the FerFuLice corpus.

The corpora containing Spanish data, i.e. the Vila corpus, the FerFuLice corpus, and the Stankova corpus, deal with the same variety of Spanish: peninsular Spanish. The

corpora which include English data, i.e. the Sachs corpus and the FerFuLice corpus, focus on American English.

5.2. Methodology

For my study, I analyze data selected from the abovementioned corpora, as illustrated in table 9 below.

Table 9. Data selection

| Child | Age range | MLU⁵ range | Language(s) | Files | Corpus |
|---------------|---------------------|------------------------------|----------------------|--------------|---------------|
| Simon | 2;02.21- 2;08.18 | 1.188- | English | 19_01- | FerFuLice |
| | | 2.644 | Spanish | 24i_01 | |
| Leo | 2;02.21- 2;08.18 | 1.410- | English Spanish | 19_01- | FerFuLice |
| | | 2.746 | | 24i_02 | |
| Neli | 2;02.26- 2;09.08 | 1.196- | Bulgarian Spanish | 19_01- | Stankova |
| | | 3.150 | | 24i_01 | |
| Emilio | 2;01.22- 2;08.27 | 1.125- | Spanish | 19_01- | Vila |
| | | 3.067 | | 24i_02 | |
| Naomi | 2;02.26- 2;09.08 | 1.448- | Spanish | 01-10 | Sachs |
| | | 2.333 | | 01-10 | |
| Naomi | 2;02.00- 2;08.14 | 1.556- | English | E18-E25 | Sachs |
| | | 2.896 | | | |
| Naomi | 2;02.00- 2;08.14 | 1.503- | English | N50-N69 | Sachs |
| | | 2.167 | | | |
| Naomi | 2;02.00- 2;08.14 | 1.786- | English | N50-N69 | Sachs |
| | | 2.885 | | | |

From table 9, it can be determined, on the one hand, that the data selected from all the children considered for this dissertation comprise approximately the same age range and, on the other and given the corresponding MLU values, that their language is developed to a similar extent. Therefore, these children's data are fully comparable.

The different copula constructions produced by these 5 children have been isolated. All the data, i.e. English, Spanish, and Bulgarian, have been classified according to two major variables: non-adult-like constructions, as in (53), and adult-like constructions, as in (54).

- (53) My dish \emptyset over here. (Sachs corpus, Naomi, 2;02)
[My dish (is) over here]
- (54) It is mine. (FerFuLice corpus, Leo, 2;05)

⁵MLU stands for Mean Length of Utterance

The non-adult-like constructions have been further subdivided into two groups in the case of English and Bulgarian, (i.e. null copula in English, as in (55), and in Bulgarian, as in (56)), and into three groups in the case of Spanish (i.e. non-adult-like usage of the copula *ser*, that is, overextension of *ser*, as in (57), non-adult-like usage of the copula *estar*, that is, overextension of *estar*, as in (58), and null copula, as in (59)).

- (55) Where Ø Max? (FerFuLice corpus, Simon, 2;05)
[Where (is) Max?]
- (56) И на бебе Ø студено. (Stankova corpus, Neli, 2;05)
'I na bebe (e) studeno'
'I na bebe(to) (mu) (e) studeno'
[The baby is cold too]
- (57) Es pupa aquí. (FerFuLice corpus, Leo, 2;04)
'(La) pupa está aquí'
[(The) wound is here]
- (58) Estás mía. (FerFuLice corpus, Leo, 2;05)
'Eres mía'
[(You) are mine]
- (59) Pato Ø piscina. (Vila corpus, Emilio, 2;03)
'(El) pato (está) (en) (la) piscina'
[(The) duck (is) (in) (the) swimming pool]

Regarding the adult-like constructions, they have been further subdivided into the copula they take, i.e. *be* in the case of English, as in (60), *ser*, as in (61), and *estar*, as in (62), in Spanish, and *sam*, as in (63), in Bulgarian.

- (60) What is the other? (FerFuLice corpus, Simon, 2;03)
- (61) No es tuyo. (Vila corpus, Emilio, 2;02)
[It is not yours]
- (62) Baba@s no está. (Stankova corpus, Neli, 2;08)
[Granma is not here]
- (63) Къде е вики? (Stankova corpus, Neli, 2;08)
'Viki kade e?'
[Where is Viki?]

In all cases, data have been classified into the type of predicate that the copula takes, that is, IL and SL. These variables are presented in tables 10, 11, and 12 for each of the three languages.

Table 10. Classification of the copula constructions in English

| File | Age | Child | Utterance | Non-adult-like | | Adult-like | |
|------|-----|-------|-----------|----------------|----|------------|----|
| | | | | Null | | <i>Be</i> | |
| | | | | IL | SL | IL | SL |

Table 11. Classification of the copula constructions in Spanish

| File | Age | Child | Utterance | Non-adult-like | | | | Adult-like | | | | | |
|------|-----|-------|-----------|----------------|----|--------------|----|------------|----|------------|----|--------------|----|
| | | | | <i>Ser</i> | | <i>Estar</i> | | Null | | <i>Ser</i> | | <i>Estar</i> | |
| | | | | IL | SL | IL | SL | IL | SL | IL | SL | IL | SL |

Spanish adult-like data, as reflected in table 11, have been classified taking into account both the canonical IL-*ser* and SL-*estar* distribution (examples (1b) and (2b) above), as well as the possible but non-canonical SL-*ser* and IL-*estar* (examples (30) and (31)). In the case of Spanish non-adult-like structures, these could include cases of canonical overextensions (SL-*ser* instead of SL-*estar*, as in example (57), and IL-*estar* instead of IL-*ser*, as in example (58)) and cases non-canonical overextensions (*ser* instead of IL-*estar*, as in example (64), and *estar* instead of SL-*ser*, as in example (65)).

- (64) Pedro es muerto.
 ‘Pedro está muerto’
 [Peter is dead]
- (65) Pedro está joven.
 ‘Pedro es joven’
 [Peter is young]

Therefore, the Spanish data classification in table 11 captures the lack of a straightforward correspondence between the IL/SL dichotomy and that of *ser* and *estar*, as already defended by Schmitt et al. (2004) and as presented in section 2.3. above, as well as the possible problems this lack of correspondence can yield in acquisition data.

Table 12. Classification of the copula constructions in Bulgarian

| File | Age | Child | Utterance | Null | | <i>Sam</i> | |
|------|-----|-------|-----------|------|----|------------|----|
| | | | | IL | SL | IL | SL |

Repetitions, one-word utterances, and answers to copula constructions which do not contain a copula verb have been excluded from the analysis.

After all the data have been classified, they have been analyzed, and the analysis and discussion are presented in the subsequent sections.

6. Data analysis

In this section, firstly, I compare the data of all the participants in the three target languages in order to determine if, as Becker (2004) and Skinner (2005) hold, there is any correspondence between the omission of the copula verb and the type of predicate which occurs with it. Secondly, the analysis of the acquisition of the English copula verb in the production of monolingual and bilingual speakers follows; afterwards, I discuss the acquisition of the Spanish copula verbs in both speaker groups. Finally, I concentrate on 2L1 acquisition in both language pairs in order to establish if the English/Spanish bilingual twins from the FerFuLice corpus and the Bulgarian/Spanish bilingual child from the Stankova corpus acquire the copula verb sooner in their one-copula language, i.e. English or Bulgarian, or in their two-copula language, i.e. Spanish.

6.1. The acquisition of the English, Spanish, and Bulgarian copula verbs and the nature of their predicates

As it has been argued in the previous sections, authors such as Becker (2000; 2004) and Skinner (2005) hold that the presence or absence of the copula verb in early stages of language acquisition is determined by the nature of the predicate they take. In this section, I analyze the relation between the copula verbs in the three target languages of this study and their predicate.

6.1.1. The omission or presence of the English copula verb in relation to IL and SL predicates

In this section, the relation between the omission and presence of the English copula verb at early stages of language acquisition is discussed in the 2L1 English/Spanish bilingual twins and the L1 English child. Table 13 below shows the results obtained from this classification.

Table 13. 2L1 and L1 acquisition of the English copula verb: Simon, Leo, and Naomi

| Child | Adult-like | Non-adult-like |
|--------------|-------------------|-----------------------|
| Simon | 43 (89.6%) | 5 (10.4%) |
| Leo | 55 (82.2%) | 12 (17.9%) |
| Naomi | 256 (91.1%) | 25 (8.9%) |

From table 13, it can be claimed that both bilingual and monolingual speakers produce a much higher amount of adult-like copula constructions in English than non-adult-like. Moreover, the monolingual child, Naomi, produces more adult-like copula constructions

(91.1%) than Simon and Leo (89.6% and 82.2% respectively) although the difference is not substantial. Furthermore, it can be argued that, in line with what Gaulin (2008) and Fernández Fuertes and Liceras (2010) concluded, the rate of omission in these children is virtually inexistent, as it is always below 20%.

Table 14 shows the rate of non-adult-like English copula constructions that these children produce in relation to the predicate type (hypothesis 1).

Table 14. English copula omission by predicate type

| Child | IL | SL |
|--------------|-----------|-----------|
| Simon | 1 (20.0%) | 4 (80.0%) |
| Leo | 5 (41.7%) | 7 (58.3%) |
| Naomi | 9 (36%) | 16 (64%) |

From this table, it can be concluded that, as Becker (2004) claimed for L1 English acquisition, the rate of omission of *be* in both types of speakers is higher with SL predicates than with IL predicates. In addition, one of the bilingual twins, Leo, is the child who produces more null copula verbs with IL predicates (41.7%), and Simon is the one who produces the less (20.0%), while Naomi produces 36% of null copulas with IL predicates. Regarding SL predicates, the higher rate of omission corresponds to Simon, who produces 80.0% of null copulas with this type of predicate. The child with the lowest amount of omission with SL predicates is Leo (58.3%). Naomi's omission rate is of 64.0%. Therefore, in this respect, the monolingual's rates always fall in-between those of the two bilinguals'.

All in all, most of the non-adult-like copula constructions in English in the output of these children correspond to SL predicates, and in both types of speakers it is above 50%. This leads me to argue that the omission of the copula verb is determined by predicate type in both monolingual and bilingual English.

6.1.2. The omission or presence of the Spanish copula verbs in relation to IL and SL predicates

In this section, the relation between the omission of the Spanish copula verb at the early stages of language acquisition is discussed in the 2L1 English/Spanish bilingual twins, the 2L1 Bulgarian/Spanish child, and the L1 Spanish child. Table 15 below shows the results obtained from this classification.

Table 15. L1 and 2L1 acquisition of the Spanish copula verbs: Simon, Leon, Neli, and Emilio

| Child | Adult-like | Non-adult-like |
|---------------|-------------------|-----------------------|
| Simon | 42 (79.2%) | 11 (20.8%) |
| Leo | 55 (73.8%) | 11 (26.2%) |
| Neli | 256 (70.6%) | 37 (29.4%) |
| Emilio | 148 (94.9%) | 8 (5.1%) |

From this table, it can be established that all these children produce more adult-like Spanish copula constructions than non-adult-like, as argued by Gaulin (2008). Moreover, in terms of the adult-like constructions, the L1 Spanish speaker is the one whose rate is higher (94.9%), while Simon's, Leo's, and Neli's production of adult-like constructions is similar (79.2%, 73.8%, and 70.6% respectively). Although no major difference is seen between the three bilingual children, there seems to be a relevant difference if compared to the L1 data being the adult-like production of the monolingual higher than that of the bilinguals. Regarding the non-adult-like Spanish copula constructions, the production of the three bilingual children is similar (20.8%, 26.2%, and 29.4% respectively), while the production of the L1 child is substantially lower (5.1%) when compared to that of the bilingual children.

Table 16 below presents the rates of non-adult-like constructions in the output of these speakers by predicate type (hypothesis 1).

Table 16. Spanish non-adult-like production by predicate type

| Child | <i>Ser</i> | | <i>Estar</i> | | Null | |
|---------------|------------|-----------|--------------|-----------|---------------|---------------|
| | IL | SL | IL | SL | IL | SL |
| Simon | 0 (0%) | 1 (9%) | 0 (0%) | 0 (0%) | 5 (45.5%) | 5 (45.5%) |
| Leo | 0 (0%) | 3 (27.3%) | 1 (9%) | 0 (0%) | 2 (18.2%) | 5 (45.5%) |
| Neli | 0 (0%) | 1 (2.7%) | 1 (2.7%) | 0 (0%) | 23 (62.2%) | 12 (32.4%) |
| Emilio | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 2 (25%) | 6 (75%) |

This table shows that the L1 Spanish child does not overextend either of the copulas in the context of the other, while the bilingual children do, although not in a very high proportion, especially in the case of *estar*. Additionally, it illustrates that there is not a consistent pattern between the omission of the Spanish copula verbs and the type of predicate across the four children. Whilst Leo and Emilio produce a higher amount of null copulas with SL predicates (45.5% and 75.0% respectively) than with IL predicates (18.2% and 25.0% respectively), Neli's output shows that her production of null copulas

with IL predicates (62.2%) is higher than with SL predicates (32.4%). Finally, Simon presents the same rate of omission both with IL and SL predicates (45.5%).

Consequently, it cannot be claimed that the fact that SL predicates can be temporally anchored by their AspP while IL predicates cannot determine the rate of omission of the Spanish copula verbs with each type of predicate. What it can certainly be claimed is that omission and overextension rates in Spanish is rather low (table 15).

6.1.3. The omission or presence of the Bulgarian copula verb in relation to IL and SL predicates

In this section, the relation between the omission of the Bulgarian copula verb at early stages of language acquisition is discussed in the 2L1 Bulgarian/Spanish bilingual child; however, it cannot be compared with L1 data since no L1 Bulgarian data are available. Table 17 below shows the results obtained from this classification.

Table 17. 2L1 acquisition of the Bulgarian copula verb: Neli

| Child | Adult-like | Non-adult-like |
|--------------|-------------------|-----------------------|
| Neli | 14 (43.8%) | 18 (56.2%) |

From these data, it can be claimed that this child produces more non-adult-like Bulgarian copula constructions (56.2%) than adult-like (43.8%). Therefore, and as opposed to what happened in her other L1 (i.e. Spanish; as in table 15), it can be argued that this child has not fully acquired the Bulgarian copula system yet.

Table 18 depicts the rates of omission of the Bulgarian copula verb considering the type of predicate that it takes (hypothesis 1).

Table 18. Omission of the Bulgarian copula verb by predicate type

| Child | IL | SL |
|--------------|-----------|------------|
| Neli | 4 (22.2%) | 14 (77.8%) |

As it can be observed, Neli's omission of the copula verb in Bulgarian is higher with SL predicates (77.8%) than with IL predicates (22.2%). From these data, it can be argued that the fact that SL predicates contain an AspP favors the omission of the Bulgarian copula verb at the early stages of language acquisition, at least, in the case of this child. Therefore, following Becker's (2004) and Skinner's (2005) findings about the omission of the English copula verb, it can be claimed that, in Bulgarian, children are more likely to omit the copula verb with SL predicates than with IL predicates.

Given all these data, in the spirit of Becker (2000; 2004) and Skinner (2005), it can be stated that children acquiring English or Bulgarian, which are one-copula languages, rely on the type of predicate to determine whether the clause is temporally anchored by Asp or Infl, as they show higher rates of omission with SL predicates which, in child grammar, can be temporally anchored through Asp. Contrariwise, the Spanish data, a two-copula language, do not show any evidence that the presence or absence of the copula verbs is conditioned by the nature of the predicate they take.

6.2. The monolingual and bilingual acquisition of the English copula verb

In this section, I compare the monolingual and bilingual acquisition of the English copula verb considering the data I have selected from the Sachs and the FerFuLice corpora. First, an overall analysis is offered, and then a developmental one is performed. The first one allows us to determine differences between the English monolingual and the English bilingual production, while the latter focuses on possible differences between the English monolingual and the English bilingual developmental processes in the acquisition of copula constructions.

Table 19 below shows the total amount of adult-like and non-adult-like constructions produced by the three children.

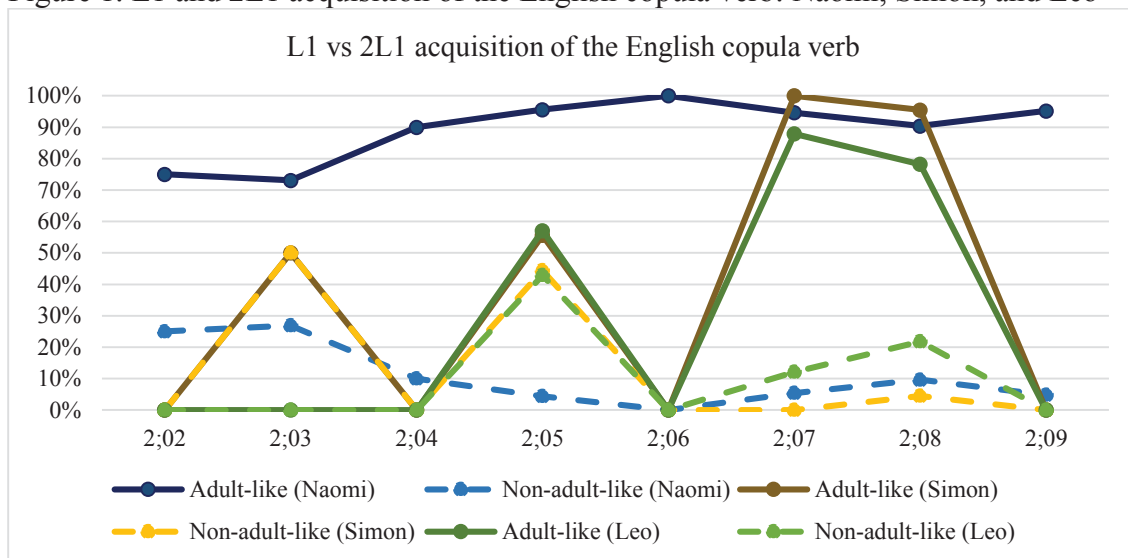
Table 19. Total adult and non-adult-like copula constructions in English: Simon, Leo, and Naomi

| Child | Adult-like copula constructions | Non-adult-like copula constructions |
|--------------|--|--|
| Simon | 87.5% | 12.5% |
| Leo | 82% | 18% |
| Naomi | 89.31% | 10.61% |

From these data, it can be stated that, although the amount of adult-like copula constructions in the case of Naomi is higher and, consequently, the rate of non-adult-like constructions is lower, the difference is not relevant, and all the children have acquired the main properties of the English copula verb.

From a developmental point of view (hypothesis 2), figure 1 shows the data of the three children in order to be able to deal with each of them separately as well as to compare among them.

Figure 1. L1 and 2L1 acquisition of the English copula verb: Naomi, Simon, and Leo



In the case of the L1 English child (lines in blue color), Naomi’s production of adult-like English copula constructions remains at a high rate and above 50% throughout the whole study period. Consequently, it can be argued that this child, at the age of 2;02, has already acquired the English copula verb.

In the case of Simon (lines in brown-yellow color), one of the 2L1 English/Spanish bilingual twins, his English copula constructions become more adult-like than non-adult like at the age of 2;05, when the difference between both types of constructions becomes greater.

Leo (lines in green color), the other 2L1 English/Spanish bilingual twin, starts producing more adult-like constructions at the same age as his brother, 2;05. Before that age, no copula constructions have been found in Leo’s data.

From this figure, it can be claimed that, contrary to what Gaulin (2008) and Fernández Fuertes and Licerias (2010) found, Simon and Leo acquire the English copula verb three months later than Naomi. Therefore, it can be argued that their bilingualism plays a role in the acquisition of this grammatical item by delaying it.

6.3. The monolingual and bilingual acquisition of the Spanish copula verbs

In this section, I compare the monolingual and bilingual acquisition of the Spanish copula verbs considering the data I have selected from the FerFuLice, the Stankova, and the Vila corpora in order to discuss hypothesis 2. Table 20 below shows the total amount of adult-like and non-adult-like constructions produced by the three children.

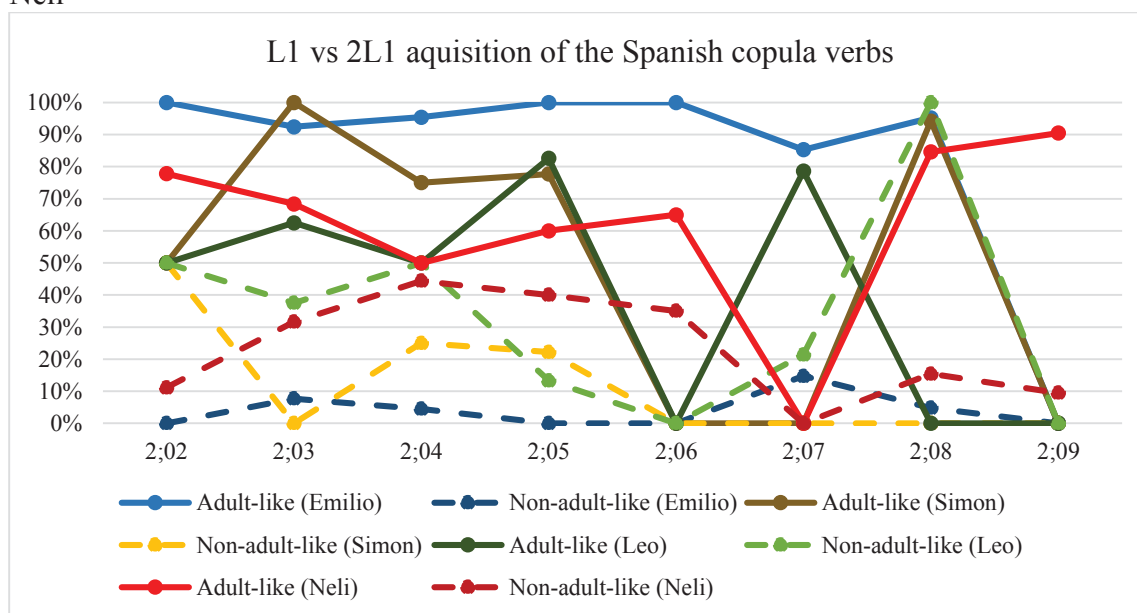
Table 20. Total adult and non-adult-like copula constructions in Spanish: Simon, Leo, Neli, and Emilio

| | Adult-like copula constructions | Non-adult-like copula constructions |
|---------------|---------------------------------|-------------------------------------|
| Simon | 80.71% | 19.29% |
| Leo | 72.55% | 27.45% |
| Neli | 64.48% | 35.52% |
| Emilio | 94.90% | 5.10% |

From this table, it can be concluded that the four children have acquired the Spanish copula verbs although the L1 Spanish speaker has developed a more adult-like usage of the structure than the bilingual speakers. If the bilingual speakers are compared among them, it can be observed that the performance of the 2L1 English/Spanish bilingual twins is better than that of the 2L1 Bulgarian/Spanish child. The figures below present the individual development of the Spanish copula verbs in each of these children and a comparison among them.

From figure 2 below, it can be claimed that at the age of 2;02, the Spanish monolingual child, Emilio, (lines in blue color) has already acquired the Spanish copula verbs as his performance always shows higher rates of adult-like copula constructions than non-adult-like.

Figure 2. L1 and 2L1 acquisition of the Spanish copula verbs: Emilio, Simon, Leo, and Neli



If we concentrate on the bilingual acquisition of the Spanish copula verbs, from figure 2, it can be concluded that by the age of 2;02 that Simon (lines in brown-yellow

color), one of the 2L1 English/Spanish bilingual twins, has acquire the grammatical item under discussion. Consequently, it can be argued that this bilingual child acquires the Spanish copula verbs at the same pace as the monolingual child, Emilio. In Leo's data (lines in green color), it can be observed that, as it happens with Simon, he starts producing more adult-like forms than child-like constructions at the age of 2;02. Therefore, it can be argued that the bilingualism of the 2L1 English/Spanish twins does not play a role in the acquisition of this grammatical item in Spanish since they acquire it at the same age as the L1 Spanish child.

In the case of Neli (lines in red color), the 2L1 Bulgarian/Spanish bilingual child, the acquisition of the Spanish copula verbs takes place at the age of 2;02. From that moment on, her production resembles more adult-like than the child-like. Therefore, as it happens with the 2L1 English/Spanish twins, the acquisition of this grammatical item in the case of Neli occurs at the same age as that of the L1 Spanish child, Emilio. Consequently, it can be argued that in her case no bilingual effect is observed in her Spanish data.

All in all, it can be argued that both the 2L1 English/Spanish children and the 2L1 Bulgarian/Spanish child acquire they Spanish copula verbs at the same age as their L1 counterpart. Hence, no bilingual effect has been detected in the data of these children.

6.4. The 2L1 English/Spanish and Bulgarian/Spanish acquisition of the copula verbs

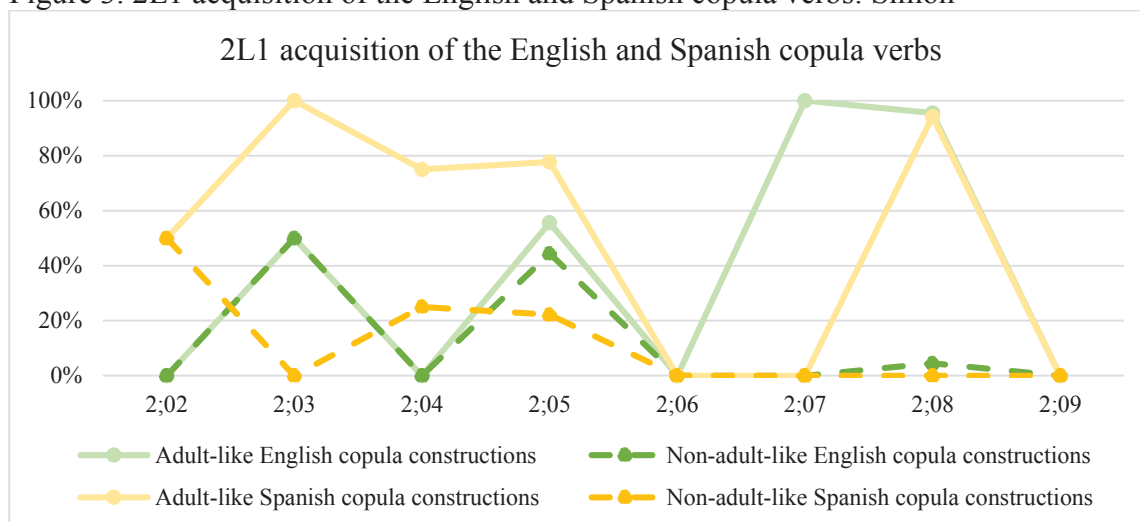
Another issue that is central in this dissertation is language dominance as a language-internal feature rather than a characteristic that depends on the speaker's external linguistic context (Liceras et al. 2008). In order to determine if the 2L1 English/Spanish bilingual twins from the FerFuLice corpus and the 2L1 Bulgarian/Spanish bilingual child from the Stankova corpus are dominant in their one-copula language or in their two-copula language, in this section, I present an analysis of their data comparing their two respective L1s (hypothesis 3).

6.4.1. Language dominance in the 2L1 English/Spanish bilingual twins

In this section, I focus on the developmental path of the acquisition of the English and Spanish copula verbs in the data selected from the FerFuLice corpus. These data are illustrated and analyzed in figure 3, in the case of Simon, and figure 4, in the case of Leo.

Figure 3 depicts the developmental path of the English and Spanish copula verbs in the data from Simon.

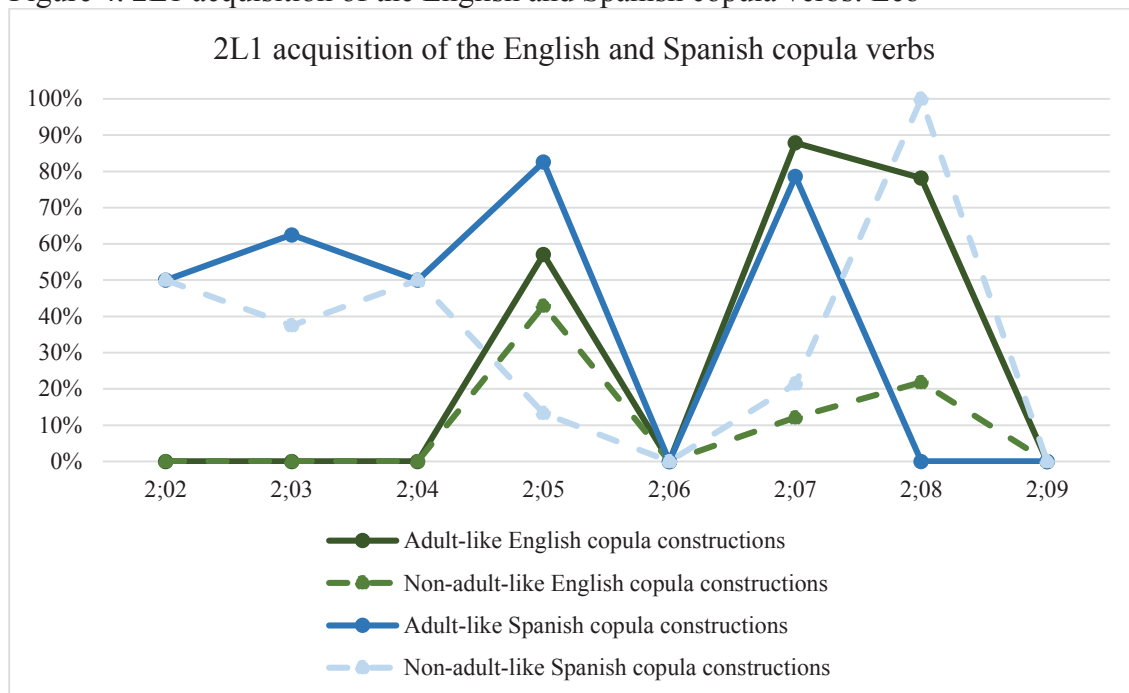
Figure 3. 2L1 acquisition of the English and Spanish copula verbs: Simon



These data show that the English adult-like copula production (in solid green color) is very low and, until the age of 2;05, it equals the non-adult like production. During that period of time, most of the copula constructions in Spanish are adult-like (in solid yellow color), and it can be argued that, at the age of 2;02, this child has acquired the main properties of the Spanish copula verbs. Moreover, it seems that in terms of this grammatical item, Simon is Spanish dominant since adult-like rate in Spanish is substantially higher than that in English from the onset of the study period.

Figure 4 below provides information about the developmental path of the English and Spanish copula verbs in the data from Leo.

Figure 4. 2L1 acquisition of the English and Spanish copula verbs: Leo

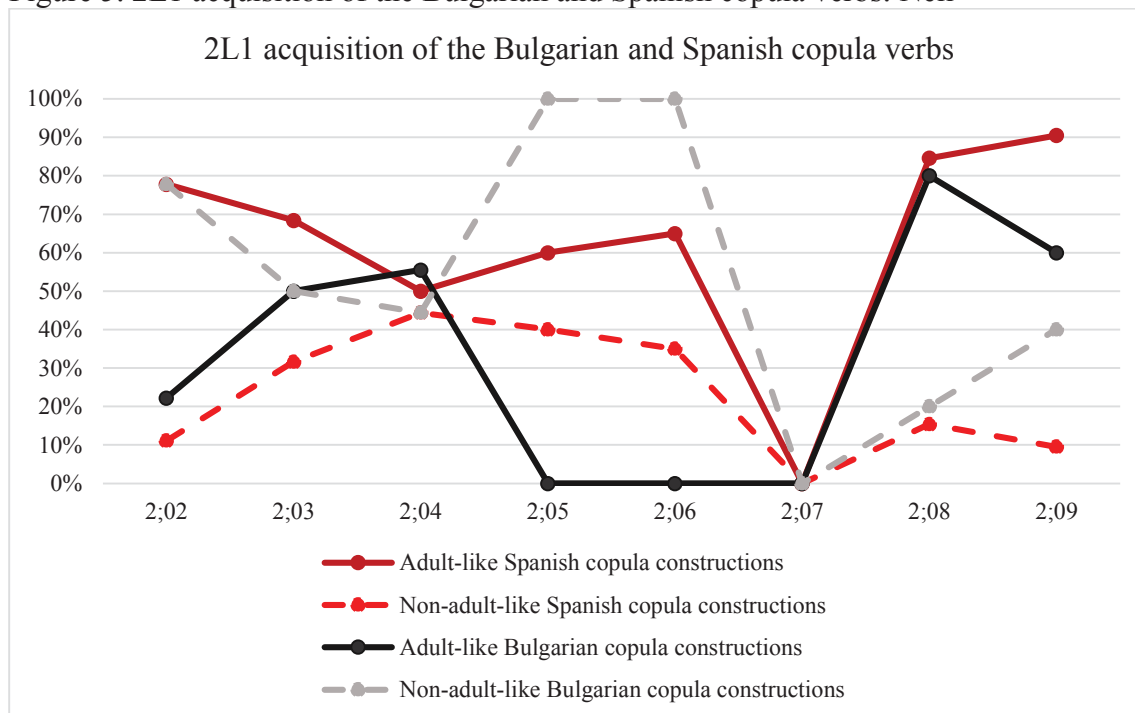


In this figure, it can be observed that from the beginning of the study period (i.e. 2;02), until the age of 2;07, the amount of adult-like Spanish copula constructions (in solid light green color) that this child produces is higher than that in English. However, at the age of 2;07, Leo starts producing more adult-like English copula constructions. From these data, it can be claimed that, as it happens with Simon, Leo is Spanish dominant. Nevertheless, the Spanish copula verbs are acquired earlier, 2;02, than the English one, 2;05.

6.4.2. Language dominance in the 2L1 Bulgarian/Spanish bilingual child

In this section, I focus on the developmental path of the Bulgarian and the Spanish copula verbs in the data elicited from Neli, as presented in figure 5.

Figure 5. 2L1 acquisition of the Bulgarian and Spanish copula verbs: Neli



This figure depicts that the rate of Bulgarian non-adult-like constructions (line in dash-dot gray color) are superior to the amount of Bulgarian adult-like constructions (line in solid black color) until the age of 2;07 when the output containing adult-like copula constructions is clearly higher than that containing child-like constructions.

As far as Spanish is concerned (lines in red), it can be claimed that the Spanish copula verbs are acquired from the very beginning of the study period as the rate of adult-like copula constructions is permanently superior to that of the non-adult-like copula constructions. Consequently, this child is Spanish dominant in terms of this grammatical item since the acquisition of the Spanish copula verbs occurs earlier than in her other L1, Bulgarian.

In a nutshell, these bilingual children acquire the Spanish copula verbs earlier than the copula verb in English or Bulgarian. However, at a certain point, the 2L1 English/Spanish bilingual twins improve their English output and overcome that in Spanish something that does not happen in the case of Bulgarian in the data considered in this study.

7. Discussion

The previous analysis of the data allows me to address my three initial hypotheses, which are briefly repeated here: my first hypothesis claims that, on the one hand, the one-copula languages (i.e. English and Bulgarian) will allow the SL predicates in child grammar to be temporally anchored by Asp rather than Infl; therefore, in these languages, it is more likely that the copula verb is omitted when occurring with SL predicates if compared to IL predicates (Becker 2000; 2004; Skinner 2005). On the other hand, following Fernández Fuertes and Liceras (2010) and Gaulin (2008), I argue that in the two-copula language (i.e. Spanish) the omission of the copula is not determined by the predicate type and has a much lower incidence. My second hypothesis is related to my research question, which refers to whether the bilingual children acquire this grammatical item sooner (acceleration), later (delay), or at the same pace as their monolingual counterparts, (i.e. no bilingual effect). Moreover, they can transfer the properties from one of their languages into the other. My second hypothesis argues that, in line with Silva-Corvalán and Montanari (2008), no bilingual effect will be detected either in the English or Spanish data of the 2L1 English/Spanish bilingual twins and the Spanish data of the 2L1 Bulgarian/Spanish child. Finally, my third hypothesis is concerned language dominance as defined by Liceras et al. (2008). In the line of these authors, the bilingual children under analysis in this dissertation are expected to be Spanish dominant in terms of the copula verb as it is the language in which this grammatical property contains more salient features given the lexical distinction between *ser* and *estar* which is absent in English and Bulgarian.

Given that the data in section 6.1. show that in English (6.1.1.) and Bulgarian (6.1.3), in the line of Becker (2000; 2004) and Skinner (2005), there seems to be a correlation between the rate of omission and the type of predicate, i.e. children tend to produce more null copula verbs with SL predicates, my first hypothesis is confirmed. The Spanish data (6.1.2.) depict that there is not a relation between the omission of the Spanish copula verbs and the type of predicate and that omission rates are generally very low. Therefore, hypothesis 1 is confirmed, and copula omission is language bound, i.e. the predicate type has an effect on the omission or production of the copula verb in the one-copula languages (English and Bulgarian), but no such effect appears for the two-copula one (Spanish).

Regarding my second hypothesis, in the case of the Spanish copula verbs, the 2L1 English/Spanish bilingual twins acquire the copula verbs in this language at the same pace

as their monolingual counterpart Emilio. Consequently, their bilingualism does not affect the acquisition of the Spanish copula verbs. Additionally, the same can be argued for the Spanish data of the 2L1 Bulgarian/Spanish bilingual, who shows the same developmental path as the 2L1 English/Spanish bilingual twins and the L1 Spanish child. Thus, it can be claimed that in the three cases no bilingual effect is detected, and so my second hypothesis is confirmed for the Spanish data.

As far as the English of the 2L1 English/Spanish bilingual twins is concerned, it can be observed that, contrary to what Fernández Fuertes and Licerias (2010) concluded, they acquire this feature in English later than their monolingual counterpart Naomi. Therefore, their Spanish may hinder the acquisition of this property in English; consequently, my second hypothesis is rejected regarding the English copula verb since, in this case, it seems that Spanish delays the acquisition of the English copula verb. As aforementioned, the Bulgarian of the 2L1 Bulgarian/Spanish bilingual child cannot be compared with that of a monolingual as there are no L1 Bulgarian data available.

Finally, my third hypothesis is confirmed since the 2L1 English/Spanish bilingual children and the 2L1 Bulgarian/Spanish bilingual child acquire sooner the copula verbs in Spanish since it is the language in which this grammatical item contains more prominent features, i.e. Spanish is lexically specialized in terms of the copula verbs while English and Bulgarian are not (in the line of Licerias et al. 2008).

In a nutshell, these data prove that in English and Bulgarian, the one-copula languages, the L1 English child, the 2L1 English/Spanish bilingual twins, and the 2L1 Bulgarian/Spanish child are more likely to omit the copula verb when it appears with SL predicates than when it occurs with IL predicates. It cannot be argued that the same happens in Spanish as the data analyzed from the L1 Spanish child, the 2L1 English/Spanish children, and 2L1 Bulgarian/Spanish child show that omission is not abundant and that these children do not favor the omission of the copula verbs with either type of predicate. Furthermore, it has been confirmed that the bilingual children acquire the Spanish copula verbs as L1 Spanish speakers, while this does not happen in English. The 2L1 English/Spanish twins behave differently from their L1 counterpart. Finally, it has been demonstrated that the 2L1 English/Spanish children and the 2L1 Bulgarian/Spanish child are Spanish dominant in terms of this grammatical item.

8. Conclusions

This dissertation has been concentrated on features of bilingualism such as acceleration, delay, transfer, or no bilingual effect (Paradis and Genesee 1996) and language dominance (Liceras et al. 2008) which arise in situations of language contact as the ones discussed here, i.e. bilingual first language acquisition of English and Spanish and Bulgarian and Spanish.

The analysis of the data selected from the CHILDES project and of my own data have allowed me to confirm that, in line with Becker (2000; 2004) and Skinner (2005), in one-copula languages such as English and Bulgarian, the type of predicate, i.e. IL or SL predicate, plays an important role in the production or omission of the copula verb in the early stages of language acquisition. However, as opposed to these previous studies, the rate of omission in the data analyzed is much lower than that found by Becker (2004) and Skinner (2005).

Secondly, the comparison of the bilingual children with their monolingual counterparts provided me with information which allows me to claim that, contrary to what Fernández Fuertes and Liceras (2010) argue, the bilingualism of the 2L1 English/Spanish bilingual children does not play a role in their acquisition of the Spanish copula verbs as they are acquired at the same pace by the bilingual children and by the monolingual child. The same happens in the case of the 2L1 Bulgarian/Spanish bilingual child, since she seems to acquire the Spanish copula verbs at the same age as the monolingual child. Hence, no bilingual effect is found in these children's data. Moreover, the scenario changes for English since Spanish seems to delay the acquisition of the copula verb in English. In this respect no reference has been made to Bulgarian as no L1 data could be found.

Finally, this analysis allowed me to argue in favor of the GFSH (Liceras et al. 2008) since, in the intra-child comparison, both the 2L1 English/Spanish bilingual children and the 2L1 Bulgarian/Spanish bilingual child acquire the copula verbs of the lexically specialized language, i.e. Spanish, sooner than those of their non-lexically specialized language, i.e. English and Bulgarian respectively.

Further research must take into account a longer age range in order to have more evidence to test the proposed hypotheses. Firstly, a comparison between 2L1 Bulgarian/Spanish and L1 Bulgarian should be carried out in order to determine if the

development of the Bulgarian copula verb is parallel in bilingual and in monolingual Bulgarian. In addition, and in line with Silva-Corvalán and Montanari (2008), the adult input may be considered in order to determine if it guides the acquisition of this grammatical item; this is, if child output is guided by the type of adult input children are exposed to. Finally, corrective input can also be taken into consideration to check if it helps these children produce more adult-like copula constructions (as in Holtheuer 2013 and Holtheuer and Rendle-Short 2013).

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