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# A GRAMMATICAL STUDY OF THE ACQUISITION OF VERBAL INFLECTION IN MONOLINGUAL ENGLISH AND SPANISH

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*To Raquel, my supervisor, thank you for being by my side from the very beginning to the very end. I truly appreciate all your effort, time, and dedication. It has been a real pleasure working with someone as hardworking, professional, and committed as you are.*

*And to my grandfather Delfín, who would be so proud of me – I love you, Grandpa.*

## ABSTRACT

This undergraduate dissertation presents a grammatical study on the acquisition of verbal inflection by comparing the spontaneous production of a monolingual English child (Benjamin) and a monolingual Spanish child (Emilio). The analysis deals with the production of verbal inflection in relation to their presence or absence, as well as the duration of the RI (root infinitive) stage, the different verb types (transitive, intransitive, copulative or semi copulative), with verbal forms (inflected, non-inflected, or RIs), and subject type (null or overt determiner phrases). The results of the study show that regarding the use of RIs and the duration of the RI stage, the monolingual English child lags behind his Spanish counterpart who shows acceleration in the acquisition of adult verbal inflection. This supports results obtained in previous works. However, the correlations between verb type and inflection, and subject type and inflection did not align with previous findings, with copulative verbs being scarcely used and with both children mainly using null subjects with RIs.



KEY WORDS: Verbal inflection, root infinitives, RI stage, developmental stages, monolingual children, English and Spanish.



## RESUMEN

Este trabajo de fin de grado presenta un estudio gramatical sobre la adquisición de la flexión verbal en el que se compara la producción espontánea de un niño monolingüe de inglés (Benjamín) y otro de español (Emilio). El análisis aborda la producción de la flexión verbal en relación con su presencia o ausencia, la duración de la etapa de infinitivos raíz (IRs), el tipo de verbo (transitivo, intransitivo, copulativo o semicopulativo), la forma verbal (flexionada, no flexionada o IRs), y el tipo de sujeto (sintagma determinantes nulos o explícitos). En cuanto al uso de IRs y la duración de la etapa de IRs los resultados del estudio reflejan una aceleración por parte del monolingüe español en la adquisición de la flexión verbal adulta, mientras que el monolingüe inglés no. Las correlaciones entre tipo de verbo y flexión y entre tipo de sujeto y flexión no van en la línea de estudios anteriores ya que el uso de verbos copulativos es más bien marginal y ambos monolingües presentan un uso mayoritario de sujetos nulos con IRs.



PALABRAS CLAVE: Flexión verbal, infinitivo raíz, etapa de infinitivos raíz, etapa de desarrollo, niños monolingües, inglés y español.

**CONTENTS**

1. The emergence of verbal inflection

In the process of acquiring their first language (L1), children go through several processes and stages until they reach the adult grammar. This means that, in their production non-adult-like forms can appear. In the early stages of acquisition, children produce sentences where the verb is sometimes inflected (examples 1), but sometimes it is not (examples 2); that is, they omit verb agreement, something that is obligatory in adult grammar (Austin 2010).

1. a. Eve sits on the floor [English child]
   b. este está tapado
      *this one is covered* [Spanish child]
2. a. Eve sit floor [English child]
   b. este tapar
      *this cover* [Spanish child]

Cases like those in (2) are referred to as Root Infinitive (RIs) because they are verbs that are not inflected but produced in a root clause, that is, a clause that requires an inflected verb. RIs are a developmental phenomenon (Berger-Morales et al. 2005) produced in the early stages of language acquisition. The period in which RIs are often produced is known as the Root Infinitive stage.

Depending on the grammatical features of each language, RIs have different properties and develop in different ways. As Liceras & Fernández Fuertes (2021) state, while some languages have a distinct infinitival marker, like Spanish, there are languages like English that show no marker at all. This is linked to the fact that while in some languages the RI stage is longer, in others it is shorter. Given the importance of the RI stage as a determinant property in the language acquisition process, the present dissertation places the focus on the analysis of verbal inflection. The objective is to offer an account of the presence of verbal inflection (i.e., the use of an inflected verb in a root context) and of the absence of verbal inflection (i.e., the use of an RI) in the early stages of monolingual English children's spontaneous production, in comparison with that of monolingual Spanish children, from 1;00 to approximately 4;00 years old. Additionally, the nature of verbal inflection is explored in relation to verb type (transitive, intransitive, copulative, and semi copulative) and subject type (full DP (determiner phrase), personal pronoun, proper noun and null DP) in order to determine whether these play a role in the use of inflected verbs and RIs.

This dissertation is divided into the following chapters. Chapter 2 comprises the background of this investigation, and it includes reference to previous studies on verbal inflection, both formal and empirical, with the analysis of data from different languages. In this case, attention is paid to both the forms of the RI and the length of the RI stage across different languages, with a special reference to English and Spanish, as the two target languages of the present dissertation. Chapter 3 contains the objectives of the dissertation, and the different hypotheses. Chapter 4 deals with the methodology and it includes reference to data selection, and the classification criteria. Chapter 5 consists of the presentation of the results and their corresponding analysis, and chapter 6 contains the final conclusions. Bibliographical references appear at the end of this undergraduate dissertation in chapter 7.

## 2. Previous works on verbal inflection and RIs

### 2.1. The analysis of verbal inflection

Children know the syntax of verbal inflection (i.e. the contexts which require an inflected verb) well before they begin producing verbal morphology. In fact, it has been shown that 16-month-old children can distinguish non-inflected and inflected third person singular verbs (Soderstrom et al. 2002 and Soderstrom et al. 2007). Moreover, children know the syntax of verbal inflection because they use inflected verbs, and they start producing them following an order of acquisition. Aguirre (2003) finds that inflected verbs emerge early, and that third person singular agreement— the simplest and perceptually more salient form— in the present tense is produced most frequently, and with a variety of verbs; followed by third person plural, and first person singular inflection.

In relation to verbal inflection, it is also possible to investigate the most common errors in languages when children start to inflect a verb.

3. a matar (= voy a matarles)
   *to kill (= (I'm going) to kill (them))*
   [bilingual child] (Austin 2010, p.64)

4. a. *esta(n) volando! (= están volando)
   **(they) is flying! (= they are flying)*
   [bilingual child] (Austin 2010, p.64)

   b. *estos ojos de quien es? (= ¿estos ojos de quien son?)
   **whose eyes is these? (= whose eyes are these?)*
   [bilingual child] (Austin 2010, p.64)

In Spanish, Austin (2010) shows that the most common inflectional errors included the omission of auxiliaries (example 3) and copulas as well as the substitution of third person singular for third person plural agreement (examples 4).

### 2.2. The analysis of RIs

According to Berger-Morales et al. (2005), the RI stage is unique to child language. Several researchers have shown that RIs occur in the speech of English monolingual children until

around the age of 2;00 (Berger-Morales et al. 2005), while others argued that it lasts until the age of 2;06-3;00 (Austin 2010). According to Rice et al. (1998) and Rice et al. (1999), children do not fully stop using RIs until roughly 4;06. In the case of L1 Spanish children, they mainly produce RIs between 1;07 and 1;08 (Perales et al. 2006) and stop producing them at the age of 2;00 according to Liceras et al. (2006) in Fernández Fuertes et al. (2024).

Children and adults do not share the same mechanisms related to morphosyntax, i.e., children do not have the same capabilities as adults when using the morphology and the syntax of the language they are acquiring. In the case of the production of RIs, Grinstead (2016) proposes two possibilities. The first one is, that this phenomenon is related to phonology, that is, that children have limitations with sounds, or else with morpho-phonology, and that children are not able to pronounce well even though the meaning of the sentence and its structure is the same as that of an adult. In this sense, as stated by Grinstead, children simply lack the adultlike production, i.e., they have certain limitations when it comes to producing verbal inflection. The second possibility, as in Perales et al. (2006), is that the RI stage derives from the underspecification of the corresponding feature for each language, i.e. as a child's linguistic representation is still developing, it does not fully available and, therefore, the child does not apply the rules systematically. What both proposals have in common is the consideration that children go through different stages when they are acquiring a language and all its rules; and that there is a period of alternation between adultlike and non-adult forms, that is why a child can go for a period of time without making a certain grammatical error, and later make this error more often, until he/she is aware of that rule, learns it and processes it. It is all part of the process of language acquisition.

### 2.3. Verbal inflection and RIs cross-linguistically

Research shows that RIs are not equal in all languages, and so, for instance, as mentioned above, children who acquire languages with morphological richness, such as Spanish, produce fewer RIs than the ones who acquire languages with less morphological richness, such as English. The morphological richness of a language is a key aspect regarding the verbal production of children, because it has been proven to facilitate or delays the emergence of verbal inflection. So, in the analysis of RIs, both the length of the RI stage and the amount of RIs need to be addressed.

The studies above on L1 English and L1 Spanish show that, there is a difference in the length of the RI stages across languages. For languages like English, the RI stage has been said to be longer and to have a higher incidence than that in Spanish (Liceras & Fernández Fuertes 2021). Furthermore, these studies show that the variability of the duration of the RI stage is conditioned by the grammatical properties of each language. Children acquiring languages with a rich verbal inflection (like Spanish) go through a shorter RI stage than children acquiring languages with poor verbal inflection (like English).

When it comes to the amount of RIs, differences across languages emerge. In previous studies, it has been demonstrated that RIs in Spanish, a null-subject language with a rich verbal agreement morphology (Berger-Morales et al. 2005), appear in small number (Austin 2010). In Spanish, verbal morphology includes information regarding person and number as well as tense (see example 5), while in English verbal morphology is much reduced. This makes Spanish verbal paradigm more informative than the one in English, as in table 1.

5. nosotros habl-á-ba-mos
   *we spoke*
   *we speak-thematic vowel-past tense, indicative mood-1st person plural.*

| Grammatical person | English | | Spanish | |
|---|---|---|---|---|
| | Present | Past | Present | Past |
| I | talk | talk-ed | habl-o | habl-a-ba |
| You | | | habl-a-s | habl-a-ba-s |
| He/she/it | talk-s | | habl-a | habl-a-ba |
| We | talk | | habl-a-mos | habl-á-ba-mos |
| You | | | habl-a-is | habl-a-ba-is |
| They | | | habl-an | habl-a-ban |

Table 1: Verbal morphology in English and Spanish: present and past tense.

In table 1 above the conjugation of the regular verb 'talk' — 'hablar' in Spanish —, appears both in, present tense and in past tense. This table allows us to compare the morphology of both languages. In the present tense, while in English the only morphological marker is *-s* to indicate third person singular, in Spanish, each person has its own morphological marker. A similar situation happens with the past tense: all the grammatical personas, in English are marked with *–ed,* independently of the number and person. However, in Spanish, each person has its own

morphological marker, although there is an overlap between the first and the third person singular. This means that children are aware of these paradigms and that morphological richness helps them project the adult grammar for verbal inflection.

The form of the RIs has to do with the fact that in English they coincide with the paradigm of the present tense, that is, in this form we can only know for sure that it is an RI when it is a third person singular because it does not carry the *-s* (examples 6). Whereas in Spanish, RIs have an infinitive mark *-r*, so we can know whether or not it is an RI, regardless of the grammatical person (examples 7).

6. a. *she go school (= she (goes to) school)

   b. *he eat apple (= he (eats an) apple)

7. a. *yo querer regaliz (= yo (quiero) regaliz)
   **I want licorice (= I want licorice)*
   b. *los niños ir parque (= los niños (van al) parque)
   **children go to park (= children go to the park)*

In this respect, according to Austin (2010), Crago and Allen (2001) argue that it is important to consider the amount of exposure to inflected verbs that children receive from the adult input in determining how soon a child will produce verbal morphology. Therefore, they claim that there is a correlation between the amount of RIs that a child produces in his speech, and the inflected verbs that a child receives from the adult input. However, Austin (2010) proposes that it is morphological complexity what conditions the rate at which inflected verbs are acquired, rather than the input a child receives.

Apart from the morphological complexity or the amount of exposure that the children are confronted with, Austin (2010) introduces the term Natural Morphology, which distinguishes three stages in the acquisition of morphology by children. First, the pre-morphological stage in which children use inflected forms without understanding how they work, i.e., they act by repetition. A second stage called proto-morphological, in which they can already understand and form patterns producing three or more inflections, i.e., they manage to understand, for example, that in Spanish there is a relationship between ‘hablo’, ‘hablas’, and ‘hablamos’ as belonging to the same verb ‘hablar’. And finally, the stage in which children have a complete morphological system, when they produce the verb inflection correctly in different contexts.

Regarding English, Austin (2010) affirms that the least verbal morphology produces the least inflection of all. This idea is linked to the previously developed idea of morphological richness. In this case, Austin investigates English and Swedish, two languages with few morphological variations and in which children tend to use more RIs. Along the same lines, Blom (2007, 2008) and Blom and Wijnen (2006) argue that in languages such as Dutch or English, children use RIs as fillers, that is, they use them in their production when they do not yet have full mastery of verbal inflection. It could be said that it is an alternative or a temporary strategy until they learn to conjugate correctly.

Lastly, the subject type that accompanies these non-inflected forms has been also studied. Berger-Morales et al. (2005) argue that RIs tend to co-occur with null subjects more often than with inflected verbs. Table 2 below, shows the frequency of null subjects with RIs and inflected verbs in two monolingual English-speaking children: Nina and Naomi.

| Child | Inflected verbs | | | RIs forms | | |
|---|---|---|---|---|---|---|
| | Overt | Null | Total | Overt | Null | Total |
| Nina 2;4-2;9 | 46 (94%) | 3 (6%) | 49 (100%) | 75 (84%) | 14 (16%) | 89 (100%) |
| Naomi 2;7-3;3 | 58 (93%) | 1 (7%) | 59 (100%) | 14 (100%) | 0 (0%) | 14 (100%) |

Table 2: Null subjects with RIs and inflected verbs in monolingual English speakers.

(Madsen and Gilkerson 1999, as cited in Berger-Morales et al. 2005, p. 304)

According to table 2, monolingual English children tend to use more null subjects with RIs, as inflected verbs seem to lead to the use of an overt subject.

The information above leads us to conclude that, in the case of English, children may favor simpler combinations when they are at the RI stage, that is, using RIs with null subjects. When their grammatical knowledge develops, it seems that the use of verbal inflection goes hand in hand with the use of overt subjects in English, as in the adult grammar. In the case of Spanish, verbal inflection emerges very early, and the use of both null and overt subjects is possible in the adult grammar.

3. Objectives and hypotheses

The present study compares the production of verbal inflection in monolingual Spanish, and in monolingual English child speech by analyzing the spontaneous data collected from children that have been observed and recorded in a natural setting. Considering previous research on verbal inflection (section 2.1), as well as on RIs (sections 2.2 and 2.3), this analysis aims to address the following objectives and to consider the following hypotheses formulated for each of the objectives:

1. The absence or presence of verbal inflection: previous works have suggested how the development of verbal inflection varies across languages and, in particular, how Spanish verbal inflection emerges earlier than English verbal inflection (e.g., Aguirre 2003; Austin 2010; Liceras & Fernández Fuertes 2021). Given this, a higher percentage of RIs is expected in the English monolingual data when compared to the data from Spanish monolingual children.
2. The duration of the RI stage in both languages: prior research has indicated that the duration of the RI stage is modulated by the inherent grammatical properties of each language (e.g., Berger-Morales et al. 2005; Austin 2010; Rice et al. 1998, 1999; Liceras et al. 2006 in Fernández Fuertes et al. 2024). In the case of Spanish, its morphological richness facilitates the early acquisition of verbal inflection making the RI stage shorter and with a lower incidence. This means that, when considering the data in terms of developmental stages, Spanish children will stop producing RIs earlier. In the case of English, given the scarcity of inflectional markers, the use of verbal inflection will evolve progressively, passing through stages of inconsistent use before becoming fully consolidated.
3. The relationship between verb type and verb inflection: the type of verb used by the children has been found to affect the use of inflected or non-inflected forms, as suggested by Austin (2010), who observed a higher error rate in copulative and auxiliary verbs. If so, copulative verbs are expected to be more problematic than, for instance, transitive verbs, both for English and for Spanish children. That is, the rate of non-inflected verbs would be higher in copulative verbs, regardless of the language under analysis.
4. The impact of subject type on the production of verbal inflection: RIs are expected to appear more frequently with null subjects (e.g., Berger-Morales et al. 2005; Madsen & Gilkerson 1999, as cited in Berger-Morales et al. 2005). This correlation is especially

evident in English, where overt subjects are a grammatical requirement in adult syntax. In Spanish, however, the situation is more complex due to its null subject nature, since both null and overt subjects are allowed in the adult grammar. Given this, RIs are expected to appear with null subjects in English, whereas in Spanish the correlation is expected to be weaker.

In order to address these objectives and to seek confirmation of the hypotheses above, the empirical study presented in chapter 5 has been developed.

## 4. Methodology

### 4.1. Data selection criteria

The data analyzed in this study comes from TalkBank and, more specifically, from CHILDES (Child Language Data Exchange System), the child language section of TalkBank, developed by MacWhinney (2000). The data from the CHILDES database have been used to address the emergence of verbal inflection in both English and Spanish.

The selection of spontaneous data to carry out the analysis has been based on two criteria: language and age. With respect to language, the focus is placed on corpora comprising English monolingual data and Spanish monolingual data from typically developing children. With respect to age, the focus is placed on corpora comprising data from age 1;00 to approximately 4;00 in order to have enough data to address developmental issues.

The following Spanish and English corpora matching these criteria have been selected: the Vila Corpus and the Wells Corpus. For each corpus, a total of 8 files have been selected, as shown in table 3. Of the thirty participants in the Wells corpus, Benjamin has been chosen because his files are the ones that best fit this dissertation, i.e., it provides data from each of the three stages into which the data will be divided. In addition, the number of utterances of each file was calculated to see the difference between the total number of utterances produced by the child, and the exact number of utterances that were sentences (i.e., utterances containing a verb).

The difference between the total number of sentences (843) and the total number of utterances of both children (3149) is quite remarkable, the difference is 2306 examples. These data reveal that both Emilio and Benjamin are able to produce utterances up to almost four years of age, but that they are still in the process of acquisition, because the total number of sentences produced (only the 26,77%) is very low compared to the total of utterances. The data selected appear summarized in table 3.

| Corpus | Child | Language | File | Age | No. of sentences | No. of utterances |
|---|---|---|---|---|---|---|
| Vila | Emilio | Spanish | 010813 | 01;08;13 | 7 | 168 |
| | | | 010829 | 01;08;29 | 7 | 194 |
| | | | 011112 | 01;11;12 | 16 | 240 |
| | | | 020301 | 02;03;01 | 45 | 191 |
| | | | 020618 | 02;06;18 | 53 | 277 |
| | | | 021108 | 02;11;08 | 107 | 330 |
| | | | 031001 | 03;10;01 | 136 | 376 |
| | | | 040100 | 04;01;00 | 79 | 175 |
| Wells | Benjamin | English | 010521 | 01;05;21 | 5 | 150 |
| | | | 010827 | 01;08;27 | 23 | 159 |
| | | | 011130 | 01;11;30 | 51 | 110 |
| | | | 020528 | 02;05;28 | 68 | 260 |
| | | | 020901 | 02;09;01 | 67 | 125 |
| | | | 021129 | 02;11;29 | 70 | 146 |
| | | | 030229 | 03;02;29 | 67 | 168 |
| | | | 030603 | 03;06;03 | 42 | 80 |
| Totals | | | | | 843 | 3149 |

Table 3: Selected data from Villa and Wells corpora.

Yule (2006, 2020) argues that, in the process of monolingual acquisition, there are pre-language stages and language stages. In this case, the data selected belong to the language stages which start around the age of 1. Given that the data selection starts at the age 1;08 and 1;05 respectively, both Emilio and Benjamin could be said to be already at the first linguistic stage, called holophrastic or one-word stage, during this study period.

Furthermore, and in order to address development, three developmental stages have been identified with the data available in CHILDES: stage 1 (from 1;08 to 01;11 in the case of Spanish and from 1;05 to 1;11 in the case of English), stage 2 (from age 2;03 to 2;11 in the case of Spanish and from 2;05 to 2;11 in the case of English), and stage 3 (from 3;10 to 4;01 in the case of Spanish and from 3:02 to 3;06 in the case of English). The distribution of files and number of sentences by stages appears in table 4:

| Emilio (SP) | | | Benjamin (EN) | |
|---|---|---|---|---|
| Stages | No. of files | No. of sentences | No. of files | No. of sentences |
| Stage 1 | 3 | 30 | 3 | 76 |
| Stage 2 | 3 | 210 | 3 | 204 |
| Stage 3 | 2 | 218 | 2 | 110 |
| Total | 8 | 458 | 8 | 390 |

Table 4: Distribution of files and No. of sentences by developmental stages.

Thus, although the number of files per language is the same, the difference in the number of examples is attributable to the nature of spontaneous data.

### 4.2. Data classification criteria

Using the files selected for each language, as they appear in table 3 above, all the utterances produced by the children and containing a verb (i.e., sentences) were extracted using the CLAN program. Specifically, the following syntax line was used: kwal +t%mor +s"verb|*" +t*CHI @.

While extracting the data some instances produced by the children were eliminated as they were not relevant for the analysis of the data. The following criteria were used for the two languages. Sentences that the child produced in the imperative mode (example 8a) were eliminated, as well as certain fixed expressions (example 8b), sentences uttered in a language different from English or Spanish (example 8c) or even impersonal sentences (example 8d). Also, instances in which there was no subject and the context did not disambiguate what the referent for this null subject might have been have also been eliminated because of the impossibility to analyze and classify them.

8. a. mira se ha acabado
   *look it is over* [Emilio, 1;11] Vila
   b. a ver
   *let's see* [Emilio, 2;03] Vila
   c. tu vols jugar amb mi?
   *you want to play amb with me?* [Emilio, 4;01] Vila
   d. hay un gigante en la playa
   *there is a giant on the beach* [Emilio, 3;10] Vila

Apart from CHILDES, the CLAN (Computerized Language ANalysis) program has been used to obtain directly all the verbs that the children produce and, from these results, to choose the sentences with which they will be classified. The sentences were compiled in an excel database to proceed with their classification.

The information in the excel database is divided into two spreadsheets, one per language, and in each case seven different sections/columns appear:

- General information: this comprises the name of the source, that is, the name of the corpus (Vila or Wells), together with the name of the children (Emilio or Benjamin). The titles of the seven sections appear below (in a green row in the Excel). In turn, there are three pink-orange stripes marking the different developmental stages.
- Sentence information: the sentence is included here. The column is headed by the word 'example' and the different sentences produced by the children are shown individually.
- Age: name of the file corresponds to the child's age in years, months, and days (e.g., file 010813 refers to a file in which the child is 1 year, 8 months and 13 days old).
- CP (complementizer phrase, i.e., clause) information: reference to which CP is being analyzed (CP1= main clause or CP2= subordinate clause) when the sentence has two verbs. There are many examples in which this column has not been used and there are two verbs in a sentence, but it is the case of verbal periphrases that have been considered as such. Coordinated sentences have been analyzed as independent CPs. In cases where there is subordination, the example appears twice, once considering the verb of the main clause and once taking into account the verb of the subordinate clause.
- Verb information: for this purpose, two columns have been provided, the first one called 'verb inflection' to indicate whether the verb is inflected, non-inflected or whether it is an RI. And the second to mark the type of verb that appears in the sentence, i.e. whether the verb is transitive, intransitive, copulative or semi copulative. Garrudo's (1996) dictionary *(Diccionario Sintáctico del Verbo Inglés*) was used as a reference source for the analysis of English verbs. And in order to analyze Spanish verbs, the online version of *El Diccionario de la Real Academia Española* has been used.
- Subject information: the last two columns contain all the information according to the nature of the subject, i.e. in the 'subject type' column, the subjects are classified according to whether they are null or overt DP, i.e., if the child produces them (overt DP) or omits them outright (null DP). When the subjects are overt, they are further

subclassified in the following column according to whether they are pronouns, proper nouns or full DPs. The latter cases (i.e., DPs) are considered more elaborate phrases.

An example of two sentences as they appear in the database (one in Spanish and another in English) can be found in table 5 below:

| Example | Age | CP (subordination) | Verb inflection | Verb type | Subject type | Overt subject type |
|---|---|---|---|---|---|---|
| mojando | 01;11;12 | | RI | Transitive | Null | |
| I get dat | 01;05;21 | | Inflected | Transitive | Overt DP | Pronoun |

Table 5: Examples of annotated child utterances from the database.

As can be seen in examples such as those in table 5, which do not contain subordinate clauses, the CP column has been left empty.

The Excel database can be accessed at the following link: TFG DATABASE LUCÍA FONSECA.xlsx

To convert all the results into numbers, percentages, and figures, the Excel tools have also been used. The analysis of the data extracted and classified is presented in the following chapter.

## 5. The empirical study of the acquisition of verbal inflection

In this chapter of the dissertation, the results obtained after carrying out the analysis are shown. There are four main subsections, each of them related to one of the objectives previously explained in chapter 4.

Firstly, the number of verbs produced by the children and the distinction between inflected verbs, non-inflected verbs and RIs is offered. In addition, a bar graph related to the verb form distribution is included (objective 1). Secondly, the amount of RIs produced by both the monolingual Spanish child (i.e., Emilio) and the monolingual English child (i.e., Benjamin), the duration of the RI stage, and the percentages in each one of them is depicted. Moreover, a line graph related to the distribution of RIs is added (objective 2). Thirdly, the types of verbs that have occurred in each verb form (i.e., inflected, non-inflected verbs and RIs) are presented, as well as the totals of each type of verb (objective 3). Finally, the distribution of subject type by language is presented, as well as the different subject types with inflected verbs, non-inflected verbs and RIs (objective 4).

### 5.1. Objective 1: the absence or presence of verb inflection

Table 6 illustrates the distribution of verb forms of the English and the Spanish monolingual children, taking into account the total number of verbs produced, those that have been inflected (examples 9), those that have not been inflected (examples 10), and those that are cases of RIs (examples 11).

| Children | Total Verbs | Inflected | Non-inflected | RIs |
|---|---|---|---|---|
| Emilio (SP) | 458 (100%) | 410 (89,54%) | 37 (8,06%) | 11 (2,40%) |
| Benjamin (EN) | 390 (100%) | 345 (88,46%) | 15 (3,85%) | 30 (7,69%) |

Table 6: Verb form distribution by language.

9. a. _se ha acabado
   *it is finished* [Emilio, 1;11] Vila
   b. I get dat [: that] [Benjamin, 1;05] Wells

10. a. vamos a <u>cantar</u>
    *let's sing* [Emilio, 2;03] Vila
    b. I'm going to <u>stay</u> at home [Benjamin, 2;05] Wells

| | | | | |
|---|---|---|---|---|
| 11. | a. | cantar | | |
| | | *sing* | [Emilio, 2;03] | Vila |
| | b. | dressed | [Benjamin, 2;05] | Wells |

Table 6 shows that the total number of verb forms produced by these children has been 458 in Spanish, and 390 in English. In both cases, inflected forms represent the majority of the occurrences recorded.

In the Spanish data, inflected verbs constitute 89,54%, followed by non-inflected verbs making up to 8,06% and finally RIs comprising 2,40%. In the English data, inflected verbs make up to 88,46%, followed by RIs representing 7,69% and lastly, non-inflected verbs comprising 3,85%. While no relevant differences appear in the case of inflected verbs across the two languages, differences appear in the case of non-inflected verbs and, most importantly, in the case of RIs. A large difference is observed in the RI rate, being more significant in English, while the non-inflected forms present a slightly higher percentage in Spanish.

These results reflect the tendencies of English and Spanish monolingual children when producing verbs in the early stages of acquisition, as visually depicted in figure 1 below. The production of the Spanish monolingual child appears in dark blue and in green that of the English monolingual child. The vertical axis shows the number of cases with values that go from 0 to 450, while the horizontal axis shows the 3 different verbal categories.

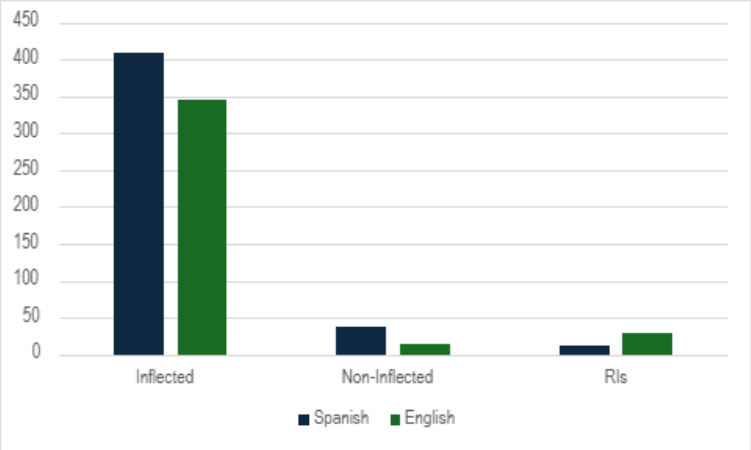


Figure 1: Verb form distribution by language.

The information in table 6 and figure 1 shows that both the English and the Spanish children produce adult-like verbal forms (i.e., inflected and non-inflected verbs) and that inflected verbs are more common in their spontaneous production. This difference could be linked to syntactic

complexity: in these early stages of acquisition, children produce more main clauses, which are the ones carrying an inflected verb, and less subordinate clauses, which are the ones that may carry a non-inflected verb. To this end, inflectional patterns in subordinate clauses (subordinate complementizer phrase, CP2) have been analyzed and are presented in table 7.

| Children | Total CP2 | Inflected | Non-inflected |
|---|---|---|---|
| Emilio (SP) | 10 (100%) | 4 (40%) | 6 (60%) |
| Benjamin (EN) | 25 (100%) | 10 (40%) | 15 (60%) |

Table 7: Distribution of verb form in subordinate clauses by language.

Table 7 first shows the total number of subordinate clauses produced in each language, where Benjamin produces slightly more than twice as many (25) compared to Emilio (10). Despite this difference, both show an identical pattern when it comes to inflected (examples 12) or non-inflected verbs (examples 13). The percentages show that 40% of their subordinate sentences have the verb inflected, while 60% have a non-inflected form. Finally, there are no cases in any of the two children's production where there is a RI in a subordinate clause.

12. a. ves como se cae!
*look how it is falling!* [Emilio, 3;10] Vila
b. d(o) you want this closed? [Benjamin, 2;11] Wells

13. a. quiero cantar
*I want to sing* [Emilio, 2;03] Vila
b. I don't want them to see it [Benjamin, 3;02] Wells

In complex structures such as subordinate clauses, children tend to use more non-inflected forms. In general, in adult speech, we tend to use more subordinate clauses with inflected verbs, such as those beginning with *that* or a *wh-* element, as compared to the production of subordinate clauses with *-ing* forms (gerund or present participle), or with a *to* (infinitive), that is, with non-finite forms. In this case, Benjamin and Emilio show that their production is still adjusting to the adult pattern because more than half of their CP2s appear with non-inflected forms. It stands to reason that syntactic complexity has a clear effect on monolingual children's production.

The information in table 6 and figure 1 also shows that non-adult like production also happens in the spontaneous production of these monolingual children. However, an important difference appears in that the RI rate is higher in the English child's data than in the Spanish child's data,

which suggests that the Spanish child behaves more adult-like. In the following section, a closer look at RIs is offered.

### 5.2. Objective 2: the duration of the RI stage

Table 8 shows the distribution of the cases of RIs produced by the monolingual Spanish child and the monolingual English child in the three different developmental stages.

| Stages | Spanish RIs (Emilio) | English RIs (Benjamin) |
|---|---|---|
| Stage1 | 3 (27,27%) | 12 (40%) |
| Stage 2 | 5 (45,45%) | 14 (46,67%) |
| Stage 3 | 3 (27,27%) | 4 (13,33%) |
| Totals | 11 (100%) | 30 (100%) |

Table 8: Distribution of RIs in the three developmental stages.

In both languages, a high percentage of RIs is observed in stage 2, while in stage 3 the use of RIs is much less marked. In the case of Emilio, the highest number of RIs is produced in the second stage with 45,45%, followed by RIs in stage 3 with 27,27% and finally the remaining 27,27% produced in the first stage. On the other hand, in the case of Benjamin, the highest percentage is also produced in stage 2 with 46,67% of RIs, followed by 40% of RIs in stage 1, and the remaining 13,33% belong to stage 3.

Looking at the data more closely, in stage 1, the proportion of RIs is higher in Benjamin's production than in Emilio's production, more specifically a 12,73% higher. In stage 2, both children produced a similar rate, with Benjamin's rate standing out slightly above Emilio's rate. And in stage 3, a greater difference is observed, with the percentage of RIs in Spanish almost double that in English, although the number of cases is very low and virtually the same for both monolingual children.

The main objective in this section is to verify, on the one hand, if in English the use of verbal inflection evolves progressively, and on the other hand, if Spanish children stop producing RIs earlier. Therefore, considering table 8, neither Emilio nor Benjamin has a regular and uniform progress. Their development is marked by variability over time, that is, they do not start producing many RIs and then stop producing them, but there are fluctuations from stage 1 to stage 3. This is an intrinsic characteristic of the initial stages of language development.

In the case of Emilio, in his first stage, where he is between 1;08 and 1;11, he only produces 3 cases of RI, while Benjamin produces RIs four times more than Emilio at the age range of 1;05-1;11. Therefore, initially it could be said that the Spanish child produces far fewer RIs than the English child in the first stage. In like manner, in the second stage, Benjamin continues to produce many more RIs than Emilio. In addition, it is observed a slight increase in the English monolingual child's production, while the Spanish monolingual child doubles his production of RIs. This may be due to their increased language acquisition; they produce more language overall, hence, their ability to form these types of structures; although they are probably still in the pre-morphological stage, as Austin (2010) proposes, in which children use inflected forms without understanding how they work.

In stage 3, a significant difference and a change in Benjamin's production can be observed, since the percentage of RIs in this last stage is 13,33%, that is to say, a very pronounced decrease is observed from the age of 3;00 years. Given that, it is true that although both children produce practically the same number of RIs, in the third stage in Spanish, the difference is not so noticeable taking into account the evolution in the three stages.

Overall, Emilio remains more linear throughout the three stages, while Benjamin has many more fluctuations. The percentages are higher in the English production than in the Spanish production, and the evolution is more linear in Emilio's production than in Benjamin's.

Having analyzed these results in stages, it can be argued that the claim that Spanish children stop producing RIs earlier is not entirely accurate. Rather, based on these findings, it can be affirmed that compared to the English data, they produce fewer RIs and the evolution is much more linear in Spanish. Moreover, with respect to the fact that in English the use of verbal inflection evolves progressively is not entirely backed up by the data either, because in this case a development is observed but is not at all progressive, since it presented ups and downs throughout the study period in Benjamin's production.

Figure 2 shows in a line graph the evolution of the production of both children in terms of their RI production. The vertical axis shows the numerical data from 0 to 16, while the horizontal axis shows the three stages. In both Spanish (dark blue line) and English (green line) the trend shows that there is an increase, which forms a peak, and then a decrease. This graph also shows the sharp difference in stages 1 and 2 for Emilio (Spanish) and Benjamin (English) and how in stage 3 Benjamin's production converges with that of Emilio, the two children thus showing a similar production.

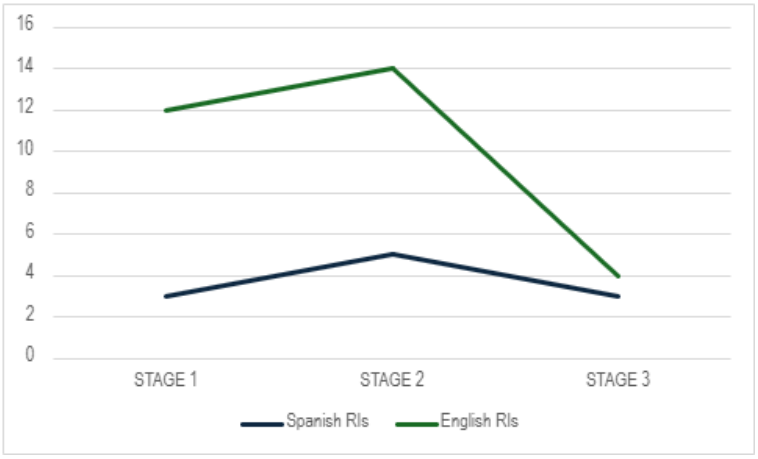

Figure 2: Distribution of RIs in the three developmental stages.

These data reflect that the difference between the Spanish child and the English child happens in the initial stages (stages 1 and 2) where the Spanish child's production shows an acceleration effect: his production conforms to the Spanish adult grammar earlier than that of the English child to the English adult grammar.

### 5.3. Objective 3: the relationship between verb type and verb inflection

Before commenting on the relationship between verb types and verb forms, table 9 shows the number of cases of each type of verb in each language.

| Children | Totals | Transitive | Intransitive | Copulative | Semi copulative |
|---|---|---|---|---|---|
| Emilio (SP) | 458 (100%) | 360 (76,70%) | 90 (21,10%) | 8 (2,20%) | 0 (0%) |
| Benjamin (EN) | 390 (100%) | 258 (66,2%) | 117 (30%) | 12 (3,1%) | 3 (0,8%) |

Table 9: Distribution of verb type by language.

Transitive verbs (examples 14) have the highest percentage in both languages, with 360 cases in Spanish and 258 in English. This is followed by intransitive verbs (examples 15), with 90 examples produced in Spanish and 117 in English. Copulative verbs, however, form part of a small percentage with only 8 examples in Spanish and 12 in English (examples 16). And in the case of semi copulatives, only 3 examples have been identified in the data, all of them in English (example 17).

| | | | | |
|---|---|---|---|---|
| 14. | a. | yo apagué la luz | | |
| | | *I turned off the light* | [Emilio, 4;01] | Vila |
| | b. | I like you | [Benjamin, 3;06] | Wells |
| 15. | a. | ella lloraba | | |
| | | *she was crying* | [Emilio, 4;01] | Vila |
| | b. | because they're freezing | [Benjamin, 3;06] | Wells |
| 16. | a. | no está el perro | | |
| | | *the dog is not here* | [Emilio, 1;11] | Vila |
| | b. | there it is | [Benjamin, 1;11] | Wells |
| 17. | a. | that one looks very snug | [Benjamin, 3;06] | Wells |

Table 10a in Spanish and table 10b in English show the verb form distribution (i.e., inflected, non-inflected, and RI) according to verb type (i.e., transitive, intransitive, copulative, and semi copulative). The aim of these results is to test the veracity of Austin's (2010) theory, which argues that there is a higher error rate in copulative verbs, as well as finding out whether there is a correlation between a specific verb type and a specific verb form.

| Emilio (SP) | | | | |
|---|---|---|---|---|
| Verb type | Totals | Inflected | Non-Inflected | RIs |
| Transitive | 360 (100%) | 328 (91,06%) | 23 (6,42%) | 9 (2,51%) |
| Intransitive | 90 (100%) | 74 (82,22%) | 14 (15,56%) | 2 (2,22%) |
| Copulative | 8 (100%) | 8 (100%) | 0 (0%) | 0 (0%) |

Table 10a: Verb form distribution by verbs type in the Spanish data.

| Benjamin (EN) | | | | |
|---|---|---|---|---|
| Verb type | Totals | Inflected | Non-Inflected | RIs |
| Transitive | 258 (100%) | 234 (90,70%) | 9 (3,49%) | 15 (5,81%) |
| Intransitive | 117 (100%) | 96 (82,05%) | 6 (5,13%) | 15 (12,82%) |
| Copulative | 12 (100%) | 12 (100%) | 0 (0%) | 0 (0%) |
| Semi copulative | 3 (100%) | 3 (100%) | 0 (0%) | 0 (0%) |

Table 10b: Verb form distribution by verbs type in the English data.

The transitive cases in both languages have the highest percentage, and both coincide with the use of inflected forms, with a 91,06 % in Spanish and a 90,70% in English. The non-inflected

forms have a percentage of 6,42% in the production of Emilio and 3,49% in the production of Benjamin. And in the case of the RIs, Emilio produces 2,51%, while Benjamin produces 5,81%, this percentage being higher in comparison with the non-inflected forms.

With respect to the intransitive verbs, they coincide with the transitive verbs in that the greatest number of them appear with inflected forms, with a percentage of 82,22% by Emilio and 82,05% by Benjamin, in this case the difference being very small. Besides, in the case of non-inflected forms and RIs, they follow the same pattern as with transitive verbs. Emilio produces 15,56% of non-inflected verbs, compared to 2,22% of RIs forms. And similarly, Benjamin produces 5,13% of his verbs with non-inflected forms and 12,82% with RI forms. That is, in Spanish, Emilio still produces more non-inflected forms than RIs, while in English, Benjamin, behaves in the opposite way, producing higher amounts of RIs compared to non-inflected verbs.

The copulative verbs follow a completely identical pattern in both languages, with all cases being inflected. And finally, the three examples of semi-copulative verbs, produced by Benjamin, are all examples containing an inflected verb.

Thus, in both children's data, their different types of verbs present a predilection for inflected forms, by presenting the highest percentages of these forms. And with respect to Austin's theory, looking at the copulative verbs, in Spanish there is apparently no error, since all of them appear in an inflected form, just as in English.

Looking at the RIs' data more closely, if we focus table 11, in Spanish, Emilio produces 81,82% of them with a transitive verb, while only 18,18% of the examples of RIs are formed with an intransitive verb. Whereas, in English, Benjamin, produces half of his forms in RIs with a transitive verb and the other half with an intransitive verb.

| Children | Total RIs | Transitive | Intransitive |
|---|---|---|---|
| Emilio (SP) | 11 (100%) | 9 (81,82%) | 2 (18,18%) |
| Benjamin (EN) | 30 (100%) | 15 (50%) | 15 (50%) |

Table 11: Distribution of transitive and intransitive RIs by language.

Hence, according with these data, in Spanish, there is a tendency for monolingual children to use mostly transitive verbs in these RI structures, whereas in English, according to these data, children do not show any predilection when it comes to using a transitive verb or an intransitive verb with RI forms. Thus, transitivity is a factor that apparently seems to have no impact on

the production of the English monolingual child, but in the production of the Spanish monolingual child it is a remarkable element.

### 5.4. Objective 4: the impact of subject type on the production of verbal inflection

As with the previous objective, before commenting on the relationship between subject types and verb forms, table 12 shows the total distribution of subject types in each child's production. The subject types are divided into 'null DP' as in examples 18 and 'overt DP', as in examples 19.

| Subject type | Totals | Emilio (SP) | Benjamin (EN) |
|---|---|---|---|
| Null DP | 465 (100%) | 358 (77,04%) | 107 (22,96%) |
| Overt DP | 381 (100%) | 100 (26,25%) | 281 (73,75%) |

Table 12: Distribution of subject type by language.

18. a. _si tiene que tocar este
*if he/she/it/ has to touch this* [Emilio, 2;11] Vila
b. _don't know [Benjamin, 2;11] Wells

19. a. porque mamá me pone el pijama
*because mom puts my pyjama on me* [Emilio, 3;10] Vila
b. could you tell me about +... [Benjamin, 3;02] Wells

In the case of the Spanish monolingual child, he produces more than half of the total null DPs, namely 77,04%, while the English monolingual child produces the remaining 22,96%. However, in the case of the overt DPs, the results show that in this case it is Benjamin who produces more than half, namely 73,75%, while Emilio produces the remaining 26,25%.

These results show that most of the null DPs were produced by the Spanish monolingual child, and most of the overt DPs were produced by the English monolingual child. This is in line with the syntactic properties of the two languages: Spanish is a null subject language in which null subjects are possible, while English is a non-subject language where null subjects are either not possible or very restricted.

Taking this information into account, table 13a and table 13b show the distribution of verbal forms according to subject types.

| Emilio (SP) | | | | |
|---|---|---|---|---|
| Subject type | Totals | Inflected | Non-Inflected | RIs |
| Null DP | 358 (100%) | 310 (86,59%) | 37 (10,34%) | 11 (3,07%) |
| Overt DP | 100 (100%) | 100 (100%) | 0 (0,00%) | 0 (0,00%) |

Table 13a: Verb form distribution by subject type in Spanish.

| Benjamin (EN) | | | | |
|---|---|---|---|---|
| Subject type | Totals | Inflected | Non-Inflected | RIs |
| Null DP | 109 (100%) | 76 (69,72%) | 13 (11,93%) | 20 (18,35%) |
| Overt DP | 281 (100%) | 269 (95,73%) | 2 (0,71%) | 10 (3,56%) |

Table 13b: Verb form distribution by subject type in English.

In order to compare the Spanish and the English data, the results are presented in two different tables. Starting with Emilio's production, as already mentioned, he presents a higher percentage of null DPs according to the grammatical properties of Spanish. Most of the null DPs appear with inflected verbs, 86,59%, while the remaining 10,34% and 3,07% belong to the subjects that appear together with non-inflected forms and RIs. On the other hand, the overt DPs follow, in all cases, the same pattern, since they all appear with an inflected verb. These results are as expected, since in Spanish the RI forms and the non-inflected verbs are non-finite forms, that is, they are forms that do not carry a subject per se, because the sentence does not require it.

However, with respect to Berger-Morales et al.'s (2005) claim that null subjects tend to appear more with RIs than with inflected verbs, in this case Benjamin may prove otherwise and be an exception. Since, in table 13b, it is observed that in English the highest percentage of null DPs appears with inflected forms, forming 69,72%, followed (unlike Emilio) by RIs forms with 18,35% of examples and finally, 11,93% of the null DPs appear with non-inflected forms. In addition, in the case of overt DPs, in comparison with Emilio's production (table 13a), they follow a somewhat more disparate pattern. Thus, the majority of overt DPs appear in sentences with inflected verbs (95,73%); a small part belongs to overt DPs appearing with RIs forms (3,56%), and the remaining and almost minimal percentage is from the examples of overt DPs with non-inflected verbs (0,71%).

In general, the production of overt DPs follows a similar pattern in Emilio's and Benjamin's results, with most examples appearing with an inflected verb. In fact, null DPs behave similarly, although there are slight variations between the examples of RIs and non-inflected verbs. Indeed, the nature of the language influences the use of subjects, and the difference is

observed in the production of both children. For this reason, the types of overt DPs have also been analyzed, as in table 14, and they have been divided into full DPs (examples 20), pronouns (examples 21), and proper nouns (examples 22).

| Language | Total Overt DPs | Full DP | Pronoun | Proper noun |
|---|---|---|---|---|
| Emilio (SP) | 100 (100%) | 16 (16,00%) | 73 (73,00%) | 11 (11,00%) |
| Benjamin (EN) | 281 (100%) | 20 (7,12%) | 259 (92,17%) | 2 (0,71%) |

Table 14: Distribution of overt DPs by type and language.

20. a. se va ya los caballos
*the horses are leaving now* [Emilio, 3;10] Vila
b. that one looks very snug [Benjamin, 3;06] Wells

21. a. yo también voy a trabajar a la facultad
*I am also going to work at the university* [Emilio, 2;11] Vila
b. I've got mustard [Benjamin, 2;11] Wells

22. a. qué haces Emilio?
*Emilio, what are you doing?* [Emilio, 1;08] Vila
b. Nicola always does that to me [Benjamin, 2;09] Wells

Regarding the number of overt DPs they have produced in total, both Emilio and Benjamin show a large difference between Spanish (100) and English, with almost three times as many cases (281). This is again due to the fact that Spanish, is a null-subject language, so it is but natural that Emilio produces far fewer subjects than Benjamin.

As it can be appreciated from table 14, the types of subjects produced by both children follow the same pattern, i.e., most overt DPs correspond to pronouns. This is because they are the simplest type of subject to produce and probably receive the most input from them. Pronouns are short, one-syllable structures that are easy to repeat, remember, and pronounce. In addition, surprisingly, both children produce more full DPs than proper nouns, i.e., they may produce more full DPs by listening to their parents or caregivers, and act by repetition.

However, the fact that proper nouns have such low percentages, 11% in the Spanish production and 0,71% in the English production, may be due to the nature of the environment of the files. That is, the children in most of the situations in which they have been recorded, in the case of Emilio, were with family members such as his father, mother or sister (who are not usually

called by name), the researcher (whose name the child probably does not know), or even other children. In the case of Benjamin, he is accompanied by people similar to Emilio, such as members of his family and playmates, but there are also participants classified as 'unidentified' who are unknown to the child. In short, it can be concluded that this may be the reason why proper nouns have such a low percentage.

Finally, in relation to English, in chapter 2 the following correlation was suggested: the use of verbal inflection may go hand in hand with the use of overt subjects in English. For this purpose, the cases of inflected verbs and those of overt subjects produced by Benjamin have been compared throughout the three stages, in order to see if this evolution is parallel. Figure 3 represents this development:

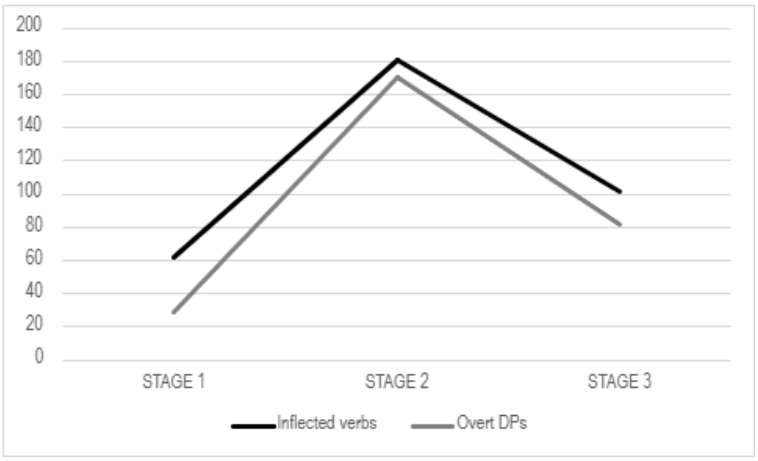


Figure 3: Distribution of inflected verbs and overt DPs in the three developmental stages in English.

As shown in figure 3, the evolution between the inflected forms and the overt DPs is practically identical, i.e., Benjamin produces almost the same number of inflected verbs as of subjects that are overt DPs throughout the three developmental stages. In stage 1 there is a slight difference, but in stage 2 the percentages are quite equal, and finally in stage 3 they end up being almost the same. Hence, these data from the English monolingual child verified the statement above: once the English monolingual child inflects the verb, he is also using the adult-like subject type that English requires (i.e., the overt DP subject).

## 6. Conclusions

This dissertation presents a grammatical study on the acquisition of verbal inflection regarding different grammatical aspects (i.e. the presence of the verbal inflection, the duration of the RI stage, the relation of the verbal inflection with verb types, and with subject type) as they appear in the spontaneous production of English and Spanish monolingual children. To conduct this study, the necessary data are extracted from different corpora (i.e. the Vila corpus and the Wells corpus), both available in the online database CHILDES (MacWhinney 2000). After selecting the data, the results are classified following the four main objectives, and several conclusions are reached to cover each of the hypotheses initially set out.

First, the results obtained present what is expected in objective 1 (i.e., whether or not verbal inflection is used). Based on other studies, Spanish verbal inflection emerges earlier than English verbal inflection (e.g., Liceras & Fernández Fuertes 2021; Aguirre 2003). Hence, a higher percentage of RIs is expected in the data from the English monolingual child, and this is what Benjamin's spontaneous production has demonstrated in comparison with Emilio's, the Spanish monolingual child. This fact, as previously mentioned, may be linked to the difference between the two languages, especially to grammatical morphological richness: while Spanish is a rich morphological agreement language, English is not.

With respect to the second objective (i.e., how long the RI stage lasts in English and in Spanish), some results have been obtained that do fit with what was expected: the fact that a lower RI rate appears in the Spanish data than in the English data, and that the RI stage seem to last for a longer time in the case of the monolingual acquisition of English. Besides, according to other studies that argue that the RI stage ends earlier in Spanish than in English, stage 3 shows a convergence of the production of both children, being the Spanish monolingual the one that has reached the lowest RI rate earlier. Likewise, with respect to the RI stage in English, the results obtained are in line with what was expected, since, as previous studies point out, the use of verbal inflection in English monolingual children evolves in a progressive manner. And that is what Benjamin's results show: a progression within the three developmental stages, and a developmental pattern that also shows ups and downs which is an inherent property of these initial stages of linguistic development.

According to the third objective (i.e., the correlation between different verb types and their inflection), the results obtained do not conform with the expected hypotheses, i.e. copulative verbs do not have the highest rate of non-inflected verbs, but on the contrary, they all appear

inflected, both in English and Spanish. It is also true that the incidence of copulative verbs is rather low. Moreover, considering the results related to the rest of the verbs (transitive, intransitive, or even semi copulative), all of them also present high percentages of finite inflection.

Finally, with respect to the fourth objective and its corresponding hypothesis (i.e., the effect of different subject types when producing verbal inflection), the results have not been entirely as expected. This is so because in Spanish the 11 cases of RIs appear with a null subject, and the cases of RIs in English show a discrepancy, although more than half of the subjects are null. In other words, the opposite of what is expected is found in the data: RIs are expected to appear with null subjects in English, whereas in Spanish the correlation is expected to be weaker. Emilio's and Benjamin's data have shown different results but contrary to the initial hypothesis.

Thus, after having reached these conclusions, it is important to add that these results are drawn from two children and that they are based on the analysis of their production within a limited period of time. This means that, in subsequent work, the study period could be extended, or even more participants could be chosen to further nurture these results and conclusions. Furthermore, these results may vary in relation to the variety of English spoken by the child (American English or British English for example), which can be addressed in future studies. In addition, a study of verbal inflection can be carried out with bilingual children and observe the differences and similarities between monolinguals and bilinguals, as well as how bilingualism affects them. Finally, it is important to keep in mind that when a study is carried out, the results may not coincide with the hypotheses first proposed. Although further studies may be carried out in the future to clarify or disprove these conclusions, the study in the present undergraduate dissertation importantly shows an acceleration effect in the case of the RI stage of the Spanish monolingual child. This is in line with previous works on the topic.

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### 7.1. Link to the database

TFG DATABASE LUCÍA FONSECA.xlsx

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