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THE SPONTANEOUS PRODUCTION OF PASSIVES BY ENGLISH MONOLINGUAL CHILDREN

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ABSTRACT

This undergraduate dissertation presents a grammatical study on the production of the passive structures by English monolingual children. The passive produced are classified according to a three-paired typology (i.e. short *versus* long, adjectival *versus* verbal, and actional *versus* nonactional passives). The type of data analyzed in the study is spontaneous and reflects the production of seventeen North American speaking children (3;0-10;0 years old) from the CHILDES database (MacWhinney, 2000). The analysis of the data points out three main results: i) short passives are more frequently produced than long passives, especially at early ages; ii) verbal passives are more often produced than adjectival passives; and iii) nonactional passives are very scarce in the production of children. An additional unexpected result was derived from the analysis, i.e. the usage of *get* as an auxiliary in the passive structure is more frequent than the usage of *be*. This study concludes that certain types of passives are favored by monolingual children depending on the length or the type of lexical verb found in the structure.

KEYWORDS: passive structure, long, short, actional, nonactional, verbal, adjectival.

RESUMEN

Este trabajo de grado ofrece un estudio gramatical sobre la producción de la estructura pasiva por parte de niños monolingües de inglés. Las estructuras que producen se han clasificado en tres pares de pasivas: cortas frente a largas, adjetivales frente a verbales y accionales frente a no accionales. Los datos analizados son de carácter espontáneo y exclusivamente de diecisiete niños monolingües de inglés norteamericano (3;0-10;0 años), cuya producción se ha extraído de la base de datos de CHILDES (MacWhinney, 2000). El análisis de estos datos indica cuatro resultados principales: i) los niños producen más pasivas cortas que largas; ii) las pasivas verbales son más frecuentes que las pasivas adjetivales; y iii) las pasivas no accionales son escasas en la producción de los niños. El análisis también demuestra un resultado no esperado *a priori*: el uso de *get* como auxiliar

en las pasivas es más común que el uso de *be*. El estudio concluye que los niños favorecen la producción de cierto tipo de pasivas dependiendo de la longitud de la estructura y del tipo de verbo léxico utilizado.

PALABRAS CLAVE: estructura pasiva, larga, corta, accional, no accional, verbal, adjetival.

CONTENTS

1. INTRODUCTION

This dissertation aims to investigate perhaps one of the most complex structures in the English language acquisition process of children, the passive structure. Investigating the passive structure is a continuing concern within the linguist community, therefore it has been extensively studied (Maratsos et al., 1985; Messenger et al., 2012; Gordon and Chafetz, 1990; Fox and Grodzinsky, 1998; among others) and it has been observed that children present some difficulties with the acquisition and comprehension of this structure. The purpose of this study is the observation of the production of different types of passive structures by English monolingual children. Whilst some research has been carried out on the passive structure, to the best of our knowledge, no study has focused on the observation of the production of the 3-fold typology presented in this study. Therefore, this study aims to provide an empirical account of the production of different types of passive structures.

This dissertation is divided into different sections. In section 2 we will provide a general and brief theoretical background of the different types of passive structures depending on their length, the theta role assignment and the type of verb used. Following this, section 3 presents an empirical background introducing some previous studies done on the passive structure, focusing on some of the types of passives introduced in section 2. Then, section 4 explains the objectives of the present dissertation and section 5 presents the methodology that we have used to conduct the study. Section 6 shows the results obtained and the discussion that our analysis puts forward and finally, section 7 collects the conclusions of this study.

2. THEORETICAL BACKGROUND

Since the focus of this dissertation is the production of the passive voice by English monolingual children, we will start by introducing briefly some grammatical characteristics of the English passive voice. In the next sections we also explain the different types of passives depending on their length (short and long passives), the theta roles assignment found in different types of passive structures (adjectival or verbal passives) and the type of

verb used (actional and nonactional passives). In order to introduce the basic structure of the English passive, example (1) can be used:

(1) Thousands of letters are delivered every day

(Collins, 2010:84)

In a passive sentence the subject is not the person or thing that does the action denoted by the verb, rather, it is the person or thing that is acted on by the verb (as in (1)). To make the passive voice we use the appropriate form of *be* + the past participle of the main verb and the subject-object order is modified. The object of the active sentence is the subject in the passive counterpart and the subject of the active sentence can be omitted in the passive sentence, as in (1), or be introduced by a prepositional phrase (i.e. the *by*-phrase, in, for instance, *Thousands of letters are delivered every day* by the postman).

It must be clarified that the verb *get* can also be used to form a passive sentence resulting in what is referred to as “get-passives". These passive structures are avoided in formal style and they are a mark of the informal style (Quirk et al., 1985). Since the verb *get* is not an auxiliary verb when it is used in the interrogative or negative form it will require the use of the dummy *do*. According to Quirk et al. (1985), opposite to be-passives, get-passives tend to place the emphasis on the subject (which is the patient) rather than on the agent and on how the event affects the subject, as can be seen in (2a) and (2b), respectively.

(2) a. He was taught a lesson

b. He got taught a lesson

(Quirk et al., 1985:161)

It has been proposed that passive constructions with the verb *be* are interpreted by children as an uncommon tense, therefore leading them to understand such passives as active sentences (Fraser et *al.*, 1963). Previous studies (Harris and Flora, 1982, among others) have reported that children use *get* to be able to distinguish passive sentences from active sentences, arguing that the verb *get* is among the first verbs that children acquire and that links the verb to the subject unlike other verbs that link the verb to the object. This means that *get* in passive sentences indicates the semantic relationship of the verb and its

patient, the subject. Opposite to the verb *get*, *be* links both subject and complement complicating the verb-patient relationship. Consequently, children find in the verb *get* a method of marking the subject in a passive sentence as the patient and not the agent as it would be the case in an active sentence (Harris and Flora, 1982).

According to *Collins Easy Learning English Verbs* (2010: 84) "We use the passive to direct our listener's or reader's attention to the important part of the message". As we see in sentence (1) there is no need to know who delivers the letters, so the postman (supposedly the one performing the action) is left out of the message and the canonical subject-object order present in the active sentence is inversed in the passive one (i.e. the subject of the active sentence is omitted and the object functions as the subject of the passive sentence). The passive is used then in cases when we do not know the person who carried out the action that the verb expresses or when this information is not required and, therefore, not important. In these cases, it is more important to know what has happened than the person or thing that carried out the action, as example (3) also shows, where the object of the active counterpart, "the letters", is functioning as the subject in the passive but there is no mention of who performed the action of hiding the letters.

(3) The letters were hidden under the bed

Therefore, the passive voice allows us to draw attention to the parts of a sentence we select or we want to emphasize. In examples (1) and (3) the focus is on the theme of the action, but there are some examples such as those in (4) where the focus is on the agent (The person who carried out the action), as in (4a); the instrument (what was used to make the action happen), as in (4b); or the means (what caused the action to happen), as in (4c). In all these examples, the by-phrase is used to indicate each focused role.

(4) a. The window was broken by some boys
b. The old man was knocked over by a bus
c. The window was shattered by the explosion

(Collins, 2010:85)

In a sentence in the active voice the usual pattern of thematic roles is for the subject of the sentence to be the agent and for the object to be the theme. When a sentence is transformed into the passive voice or a sentence is produced in the passive voice this usual mapping is altered. If we take example (4a) and compare to its active equivalent, i.e. *Some boys broke the window*, we observe that i) the subject of the passive sentence is not the agent but the theme and ii) the subject of the active sentence (*some boys*) in the passive sentence is still the agent although it no longer functions as the subject but as an internalized complement introduced by the preposition *by*. Therefore, the thematic role assignment and the semantic relationship of *some boys* and *the window* regarding the event of breaking is the same in the passive sentence: in spite of the order inversion, *the window* is still the theme and *some boys* is still the agent.

In order to illustrate the different types of passives in English, in the following subsections we will describe those types of passives which are of special interest for our study and where different criteria have been taken into account: the length of the passive, the nature of the structure and, finally, the semantic type of verb used in passives.

2.1. SHORT AND LONG PASSIVES

It has been proposed (Huddleston and Pullum, 2012) that there are two types of passives according to the length of the structure: long and short passives as in (5a) and (5b), respectively, where the passives are short or long depending on the presence or the absence of the by-phrase.

(5) a. My surfboard was stolen by Pat [Passive] Pat stole my surfboard [Active]
b. My surfboard was stolen [Passive] (Someone) stole my surfboard [Active]

(Huddleston and Pullum, 2012:1428)

The prepositional phrase headed by the preposition *by* in (5a) (*by Pat*) is what Huddleston and Pullum (2012) refer to as the internalized complement: *Pat* in (5a) is the

subject of the active voice sentence (and therefore external to the verb phrase (VP), *stole my surfboard*), while in the passive sentence it becomes the internalized complement because it is transformed into the by-phrase (*by Pat*) internal to the VP.

The internalized complement can be omitted, as in (5b), which would be a case of the short passive, i.e. it does not contain the internalized complement. The lack of presence of this complement as in (5b) would imply that short passives have no agent(s) and so no exact active counterparts but example (5b) conveys the same information as "Someone stole my surfboard", and so this would be the active counterpart of the long passive *My surfboard was stolen by someone*. The difference between long (*My surfboard was stolen by someone*) and short passives (*My surfboard was stolen*) may be negligible semantically speaking taking into account example (5b).

In the following section, a different typology of passives is explained according to the interpretation of passive structures.

2.2. VERBAL AND ADJECTIVAL PASSIVES

There is a well-known distinction between adjectival and verbal passives. A short passive in English like the one we find in example (6) could be ambiguous since it can be an adjectival passive or verbal passive depending on how we interpret its meaning (Guasti, 2002).

(6) The door was closed.

(Guasti, 2002:248)

This sentence can either refer to the state of the door being closed (stative interpretation) or to the event of the door being closed (eventive interpretation). These different interpretations reflect a different syntactic structure as well: under the stative reading, the sentence in (6) is an example of an adjectival passive where *closed* is the head

of an adjectival phrase, while under the eventive reading, the sentence in (6) is an instance of a verbal passive where *closed* is the head of a VP.

If the by-phrase is added to *the door was closed*, there would not be any ambiguity, as illustrated in (7), where the sentence is a verbal passive and it is interpreted as describing the event of the door's been closed by Aladdin.

(7) The door was closed by Aladdin.

(Guasti, 2002:249)

According to Guasti (2002), adjectival and verbal passives are formed through different mechanisms. Verbal passives are formed through three main processes, which occur in the syntactic component. The first process is the NP-movement of the object of the active sentence (*the door* in (7)), the second process is assigning to the passive morpheme the thematic role of the external argument (*the door* being the subject), and the last process, which is optional, is transmitting the thematic role that was assigned to the passive morpheme to the NP in the by-phrase (*by Aladdin*).

If we take as an example the verb *close*, used in example (7), it assigns both an agent role to *Aladdin* and a theme role to *the door*. The process that derives from the adjectival passive or stative interpretation of *closed* in (6), however, requires a change of category: the -ed form of the verb (i.e. *closed*) is an adjective not a verb.

Furthermore, Guasti (2002: 249) explains that "[the adjectival passive] also involves the elimination of the thematic role assigned to the external argument from the argument structure and the externalization of the argument assigned the theme role". According to Guasti's explanation, in the case of example (7) with a stative interpretation (i.e. adjectival passive), the agent of *close* is omitted and the object acted upon, *the door*, is externalized. Therefore, it seems that the change of category of the verbal form in combination with the argument externalization are processes that may imply more difficulties in the formation of this type of passives.

In the following section we will introduce the last type of passives relevant to this dissertation and which is related to the semantic typology of the verbs found in passives.

2.3. ACTIONAL AND NONACTIONAL PASSIVES

According to the semantic type of verbs found in passives, two types of passives can be distinguished: actional passives and nonactional passives. Actional passives are those that are constructed using an actional verb, i.e. a verb that describes an action. On the other hand, nonactional passives are those that are formed with a nonactional verb which are those verbs that describe states or feelings. This distinction can be observed in examples (8a) and (8b), respectively.

(8) a. The boy was hit (by his friend)
b. The girl was loved (by her parents)

In (8a) there is a sentence constructed with a verb that describes a particular action (*hit*, "to touch something/someone with a sudden force") and, therefore, it is considered an actional passive; while in (8b) a nonactional verb is used (*love*, "to like something/someone very much") and, therefore, it is classified as a nonactional passive.

This classification has been intensively studied by Maratsos et al. (1985), who proved that passive sentences with actional verbs are acquired faster and easier to comprehend than passive sentences with nonactional verbs. This is known as the "Maratsos effect" and it has been replicated by other studies (Gordon and Chafetz, 1990; Hirsch and Wexler, 2006).

The other types of passives presented under section 2 have also been studied in the English passives acquisition literature. The main contribution of the present work would be to focus not only on the acquisition and production of one type of passives but on the three different types mentioned under this section. In order to offer a brief perspective of some of

the empirical works on passive acquisition by English monolingual children, the following section offers those most pertinent for our own study.

3. SOME PREVIOUS STUDIES ON PASSIVES ACQUISITION

As mentioned at the end of section 2, one of the most relevant studies regarding the English passive structure acquisition is that carried out by Maratsos et al. (1985). The participants for the two experimental tests included in the study are English speaking children between four and five years of age for one test and children between four and eleven years for the other test. These experimental tests were made to evaluate the children's comprehension of passives, more specifically nonactional passives. In this paper Maratsos et al. draw several conclusions that are useful for this dissertation: children consistently comprehend passives with actional verbs more accurately than nonactional verbs. They have found that this disparity in accuracy is of a prolonged duration: according to Maratsos et al.'s results seven-year-old children still had difficulties with the comprehension of nonactional verbs. Therefore, Maratsos et al.'s main results seem to suggest that English monolingual children understand passives with nonactional verbs with more difficulty and later than actional passives.

The next study pertinent to our dissertation is that of Messenger et al.'s (2012), which was carried out with English monolingual children (six and nine years old) and where it is suggested that the acquisition of the passive structure is a stage process: children acquire first the constituent structure before the thematic roles mapping, that is, children of six and nine years old acquire an abstract syntactic representation for the passive at a first stage. This representation is common for both production and comprehension of passives but independent of the lexical content. This means that children when hearing a passive sentence were able to obtain a representation of the constituent structure which they could later use in their own production of passive sentences. Messenger et al. also found that children even at a relatively late stage of language development may experience difficulties in the processing of non-canonical thematic roles. This means that children may produce syntactically correct utterances but not thematically accurate reversed passives such as

"The dog was chased by the girl" (Messenger et al., 2012: 993). These problems seem to be solved by the age of nine. This study shows that the difficulty of children with the passive structure is not its relatively more complex constituent structure but rather the non-canonical thematic mappings.

Preliminary work on passives focusing on the long and short passives distinction was undertaken by Maratsos and Abramovitch (1975)[1]. They present evidence that children's comprehension of long and short passives structures develops in developmental synchrony. Maratsos and Abramovitch carried out five experiments in their preliminary study, however, only one is pertinent for this research paper (experiment I). The subjects were forty English monolingual children between the ages of two years and eleven months and three years and eleven months. The stimulus materials used for the experiment were long and short passives as semantically similar as possible. Thus, for all the long passives the experimenters used the by-phrase *by someone* (as in *Mary is pushed by someone*) because, according to the authors, the passive sentence *Mary was pushed by someone* is more similar to *Mary is pushed* than the sentence *Mary is pushed by John*. The results show that the correct representations of sentences were similar for both the long and short passives and so the authors state that their results do not indicate an earlier acquisition of short passives over long passives. They sustain that the results seem to support the hypothesis that the competence in both passive types develops in close temporal synchrony and that whatever is decisive for the development of one seems to be decisive for the development of the other.

Opposite to this study, the experiment carried out by Fox and Grodzinsky (1998) resulted in that not only children's performance of long passives was worse but also that the main problem was the by-phrase itself. The subjects of the study were thirteen English monolingual children between the ages of three years and six months and five years and five months. In the task the children had to judge if a sentence which included passives and uttered by a puppet was right or wrong according to certain narrated events. The results show that the performance of the whole group in actives and actional passives

[1] Maratsos and Abramovitch (1975) present a different terminology for what we describe in this study as short and long passives, calling them truncated and full passives respectively.

demonstrated a good level. However, the performance of nonactional full passives confirm Maratsos et al.'s (1985) conclusions that indicated poorer performance with nonactional verbs. However, the performance of nonactional short passives was significantly better than nonactional long passives with an 86.5% of correct utterances. According to Fox and Grodzinsky, these last results indicate that the problem lies with the interpretation of the by-phrase. In fact, the mistakes that the children produced decreased once the by-phrase was suppressed. Therefore, these results contradict those of Maratsos et al.'s (1985) about nonactional passives being more difficult to understand than actional ones.

These previous studies mainly dealt with the comprehension and production of the passive structure, hence, what they use for their analyses is experimental data. We were unable to find more studies focusing on spontaneous production of the different types of passives as we do in this study[2]. Therefore, we believe this study offers some important insights into this area of knowledge. In the following section we present the objectives for this study.

4. OBJECTIVES

Our study deals with the production of three types of passive structures (i.e. short *versus* long, adjectival *versus* verbal and actional *versus* nonactional, see sections 2 and 3) by English monolingual children between the ages of three and ten in order to observe in their spontaneous production the type of passives they produce. As said above, the English passive structure is extremely complex and not frequent in speech (Biber, 2012), thus we expect to find few examples of this structure but fair enough to come to interesting conclusions. With all of this in mind, the following research questions are proposed:

[2] Although in Horgan´s (1976) study it is mentioned that the spontaneous production of passives by monolingual children is collected, the type of data presented in part of the study belong to a semi-guided task where children are elicited to produce passives. Closer to our type of study is that of Pinker et al. (1987: 202), who provide the analysis of the spontaneous production of two of the Brown corpus' children, but including what they understand as "'passives' is a liberal way, including likely adjectives (...), possible simple past tense forms", rather than real passives or a more restrictive view of passives, as in the present dissertation.

Research question 1: Will we find any difference between the production of short passives compared to long passives?

As we introduced in section 2, passive sentences can be divided into long and short types depending on the presence or absence of the by-phrase. We intend to observe if in the passive production by English monolingual children one type is more common than the other and if one appears at an earlier stage than the other. There seems to be opposing views regarding the frequency and difficulty of short and long passives for children. Previous studies mentioned under section 3 provide two different points of view. Maratsos and Abramovitch (1975) state that the variation in the comprehension of both long and short passives is insignificant and Fox and Grodzinsky (1998) presents data that suggest that the by-phrase present in long passives poses a great difficulty for children, and therefore, short passives are understood better by children. We hope that our results will give us a clear indication if one of these statements is true but applied to spontaneous production rather than to comprehension.

Research question 2: Will there be any difference in the production of adjectival or verbal passives?

This research question is proposed in order to investigate if the production of adjectival or verbal passives will be the same or higher than the other. Although this research question poses the problem of the ambiguity making hard to distinguish between both types of passives (Guasti, 2002), we intend to pay attention to the context of the interaction to find out if we are able to distinguish both types in the children's production.

Research question 3: Will actional verb passives be more frequently produced by English monolingual children than nonactional verb passives?

As explained in section 3 Maratsos et al. (1985) proved that children acquire and understand actional verb passives earlier than nonactional verb passives. We have not found empirical data that deals with the production of actional or nonactional passives. Thus, this research question aims to illustrate whether one type of passive will be more frequently produced than the other. Also, we intend to observe if one will be produced at an

earlier age than the other. Based on Maratsos et al.'s previous study (1985) we expect to find actional passives more frequently produced than nonactional passives. At the same time, Fox and Grodzinsky (1998) results indicated a better performance in the comprehension of nonactional short passives than nonactional long passives and we also intend to observe if this combination of these two types of passives proves to be true in our data as well.

In order to obtain an answer for the three research questions presented above, an analysis of passive structures produced spontaneously by English monolingual children is necessary. In the following section we explain the procedure used in order to carry out this analysis.

5. METHODOLOGY

In this section the procedure followed in order to extract and classify the data is presented. This section is divided into three subsections that will show the data selection, the children that were selected for the study, the data extraction procedure and the classification of the data.

5.1. DATA SELECTION

CHILDES project (MacWhinney 2000) is the database from where all the data used to carry out this dissertation has been extracted. The CHILDES database contains transcripts of mainly oral production of different languages by monolingual and bilingual children. Since CHILDES has become part of the corpus TalkBank, it now contains a wider and more diverse data selection. The data selected for this study has been extracted from four different corpora found in the CHILDES database under English-NA-MOR section: *Brown, MacWhinney, Bliss* (only typically developed children) and *Carterette*. These corpora contain spontaneous production of children and we have selected the data between the ages of three and ten years of age as this is the age range included in some previous

empirical works on passives comprehension by monolingual children (see section 3). More detailed information about the corpora and the children selected can be found in table 1.

Table 1. Corpora and children information

TD CHILDREN		
CORPUS	**NAME**	**AGE RANGE**
BROWN	Adam	3;00 – 5;02
	Sarah	3;00 – 5;01
BLISS	Trevor	4;03
	Justin	4;06
	Aimee	5;04
	Willie	6;01
MACWHINNEY	Mark	3;00 – 5;08
	Ross	4;00 – 7;08
CARTERETTE	First (3 children)	6;00
	Third (3 children)	8;00
	Fifth (3 children)	10;00

This table illustrates the children selected for the study of this dissertation: the age range of the children is between three and ten years old and a total of seventeen different children were included in this study: from the *Brown* corpus, two children were selected; from the *Bliss* corpus, four children; and from the *MacWhinney* corpus, where a natural record of family interaction between the two boys and their father is presented, the two children were selected. In the case of the *Carterette* corpus, the situation where 3 children from each grade[3] (i.e. first, third and fifth) interact with an adult is different from the

[3] The information provided in CHILDES (MacWhinney, 2000) states that 54 first graders, 48 third graders and 46 fifth graders participated in their study. However, it is not specified how many of those children were

familiar situation found in the other corpora where the children interact with their parents. We decided to include the data from the *Carterette* corpus to compile a higher number of passives in the production of monolingual children and to compensate the fact that passive structures are rarely used in everyday conversations (Biber, 2012). The children selected for the study are between the ages of three and ten. This age range was selected based on previous studies on passive acquisition and because according to Pinker (1995), children start to produce complex structures (such as passives) from the age of three. The maximum age for this dissertation was chosen for several reasons. First of all, with an ample age range we are able to see the evolution of the passive production and the different variations that might occur. Furthermore, knowing that the passive structure is rare in spontaneous production, the ample age range would give us more data to analyze and more probabilities to find passive utterances.

In order to provide the reader with the information of the size of the data analyzed we present the following table, where it is shown the total number of utterances in each of the corpora used for the data extraction.

Table 2. Number of utterances produced by the child participants

CORPUS	# UTTERANCES
BROWN	51.991
BLISS	889
MACWHINNEY	45.688
CARTERETTE	6873
TOTAL	105.441

transcribed and if all their production was put into the files. Therefore, it is not clear the number of children that appeared in each transcription because all children are referred to as *CHI. Therefore, as in the corpus description it is stated that "Three children were seated around a small table with a young, friendly adult", we have taken for granted that three children appear in each of the transcriptions used for this study.

5.2. DATA EXTRACTION

The tool used to read and analyze the corpora is the CLAN program, which allows to codify and analyze data as well was to obtain the required information from the corpora selected and mentioned in section 5.1. This program allows the user to carry out a variety of analyses of the data that can be found in CHILDES (MacWhinney, 2000).

The program used in this dissertation to analyze the data was COMBO. This program searches the data for a specific combination of words or characters. It allows the user with a way of composing chains to match words, groups of words or letters. The strings are composed of algebraic symbols to define word or combinations of these. The symbols used in this study were +, ^ and *. The symbol + adds more items to the string, the symbol ^ the word immediately after and the metacharacter * allows to find two elements followed immediately or otherwise, these elements could be words or endings of words as used in this program. The commands -w1 +w1 were used to show the previous and following sentences of the sentence that contained the results of the search. The complete string used was the following and indicates how the forms searched were those associated with passive sentences like all the different verbal forms of the verb *to be* and *to get* ((i)s/(a)re/(a)m/was/were/being/been; get(s)/getting/got) followed by an -ed/-en verbal form produced by the corresponding child and including the preceding and following context:

+s"be+is+*'re+are+*'m+am+*'s+was+were+being+been+got+get+gets^*ed+*en+ *wn+*rn" +t*CHI -w1 +w1 *.cha.

Once all the passive structures were extracted, we proceeded with their classification according to the 3-fold typology discussed in section 2. In the following section, a summary of this classification is presented.

5.3. DATA CLASSIFICATION

In this section we introduce some of the utterances found in the data analyzed in this study. As discussed in section 2, we divided passives into long and short passives, adjectival and verbal passives, and actional and nonactional passives. Although the number

of passives found is not high, we consider that it is enough to answer the research questions proposed under section 4. In the following table we illustrate the different types of passives with an example found in the children's data.

Table 3. Classification of the passives produced by the participants of the study

TYPES OF PASSIVES	EXAMPLES FROM THE DATA
SHORT	*CHI: she got killed [*Sarah 4;02, Brown corpus*]
LONG	*CHI: the yummiest one was kissed by the kitty [*Ross 7;00, MacWhinney corpus*]
ADJECTIVAL	*CHI: and the door's closed [*Mark 3;09, MacWhinney corpus*]
VERBAL	*CHI: the candy was eaten by the ewok [*Mark 4;08, MacWhinney corpus*]
ACTIONAL	*CHI: no they were rubbed off from the cage [*Fifth 10;00, Carterette corpus*]
NON ACTIONAL	*CHI: when we get frightened [*Adam 3;05, Brown corpus*]

This table illustrates how we have classified the passives structures obtained from the production of the selected children. The first typology depends on the length of the

passive, i.e. the short (no by-phrase) *versus* long passive (with the by-phrase *by the Kitty*); the second typology introduced in table 2 depends on the assignment of the theta role, thus we have adjectival (*is closed*) *versus* verbal (*got eaten*) passives; and finally, the last typology depends on the type of verbs of the sentence, i.e. actional passives are constructed with an actional verb (*chased*) and nonactional passives are constructed with a nonactional verb (*frighten*). As can be seen from some of the examples in table 3, both be- and get-passives were included in the compilation of the target structures. We must clarify that this study is not concerned with the verbal morphology in passives and, therefore, passive utterances that contained errors (such as wrong conjugation of irregular verbs, e.g. *breaked*) were still considered as passive structures under analysis.

6. ANALYSIS AND DISCUSSION

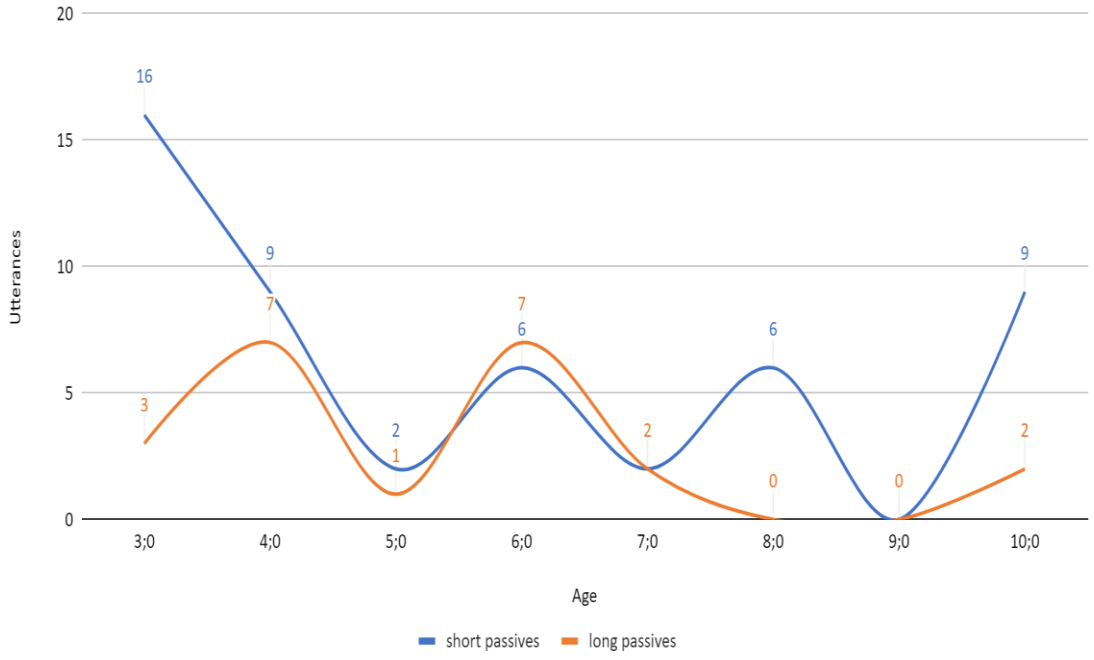
In this section of the dissertation, the results obtained after carrying out the analysis of the different children's production will be presented. The research questions put forward in section 4 will be answered here, hence we will divide this section into 3 subsections that correspond to each of the research questions: 1) the difference in production of short passives compared to long passives; 2) the difference in the production of adjectival and verbal passives; 3) the difference in the production in actional passives compared to nonactional passives; and finally, we conclude this section with a general discussion of the results obtained.

6.1. Research question 1: Will we find any difference between the production of short passives compared to long passives?

Preliminary work on passive acquisition has proved the difficulty that this complex structure poses for children in general due to a mix of low input and the alteration of the canonical pattern of sentences. The objective of the research question is to find which type of passive structure depending on the length will be more frequent (and maybe less difficult to produce) in English monolingual children.

Examining the data produced by the children we can appreciate a significantly higher number of short passive sentences (50 out of 72 total cases of verbal passives, which represents 69,4%) compared to long passives (22, 30,6%). The percentages are based in the total amount of verbal passives found which are 72, the remaining 8 passives correspond to the adjectival passives. One of the studies reviewed under section 3, Fox and Grodzinsky (1998), suggested that short passives are comprehended easier and earlier by children, a result that parallels ours (and not that of Maratsos and Abramovitch's (1975)) in the case of the spontaneous production since the children of our study also produce short passives more frequently than long passives, as Figure 1 illustrates. We must clarify that the gap of nine years of age appears at zero because there were no children of that age among the participants of the corpora[4].

Figure 1. Production of long and short passives



At the same time, and as we can see more clearly in figure 1, short passives are considerably more frequently produced at almost every age span of the children's data. It is

[4] In fact, there were no corpora containing data of spontaneous production of nine-year-old children in the CHILDES database.

especially interesting the great number of short passives found at such a young age (16 short passives at the age of three). The percentages of short and long passives in terms of years of age are represented in figure 2.

Figure 2. Distribution in percentages of short and long passives by age

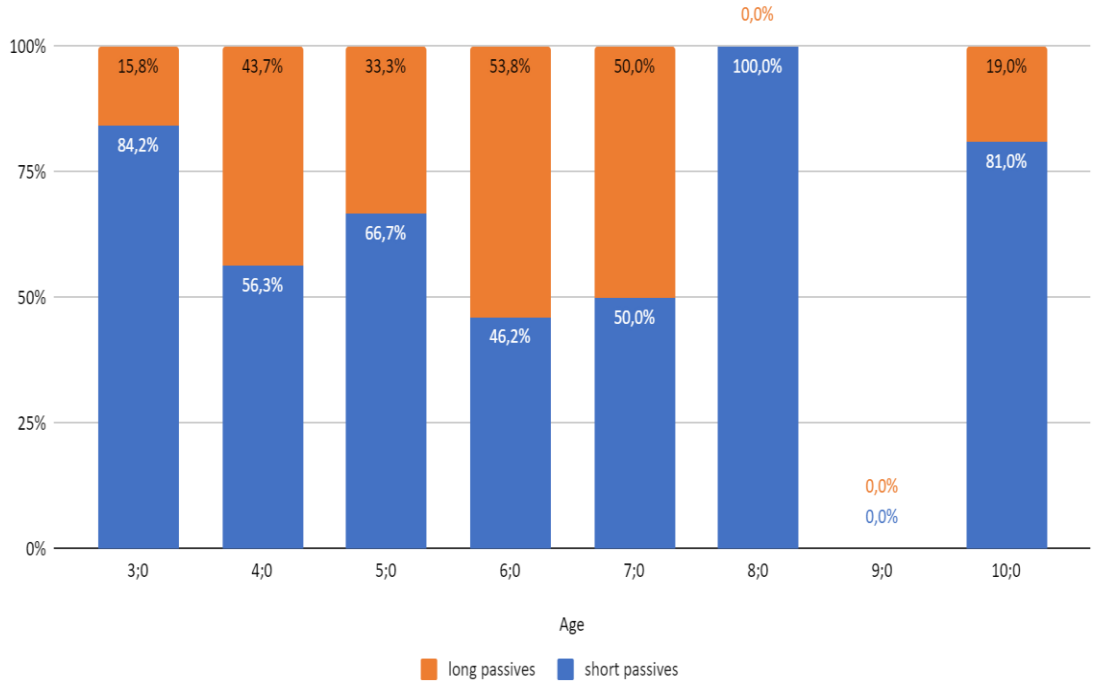


Figure 2 clearly shows the prevalence of short passives at every year of age. Therefore, there is no doubt that children perform better at the production of short passives, like those in the (9), (10), (11) and (12), than at that of long passives, which would parallel the results of Fox and Grodzinsky's (1998) participants in comprehension.

(9) *CHI: I know I think I had that too (.) cause my hurted <at school> [//] tonight at school and I feel like I was shocked

(*Ross 4;10, MacWhinney corpus*)

(10) *CHI: I got knocked out

(*Mark 3;10, MacWhinney corpus*)

(11) *CHI: They were rubbed off from the cage

(*Fifth 10, Carterette corpus)*

(12) *CHI: Do you want that lady to get fired

(*Third 8, Carterette corpus*)

Regarding long passives, the production is significantly lower than that of short passives. The utterances found lead to believe that children do comprehend and have acquired long passives, especially at later ages when more long passives are produced than at younger ages. We can also see in figures 1 and 2 that children produce more long passives, as those in (13), (14), (15) and (16), as they grow older (evident at least until the age of seven).

(13) *CHI: the cat was chased by the dog

(*Ross 6;07, MacWhinney corpus*)

(14) *CHI: the bad lion got killed by Tarzan

(*Ross 4, MacWhinney corpus*)

(15) *CHI: I'm putting my bike in here so it won't be taken by the burglars

(Ross 4;06, MacWhinney corpus)

(16) *CHI: Then the black man got eaten by one

(*Third 6, Carterette corpus*)

(17) *CHI: I got bitten by a Bonita right there

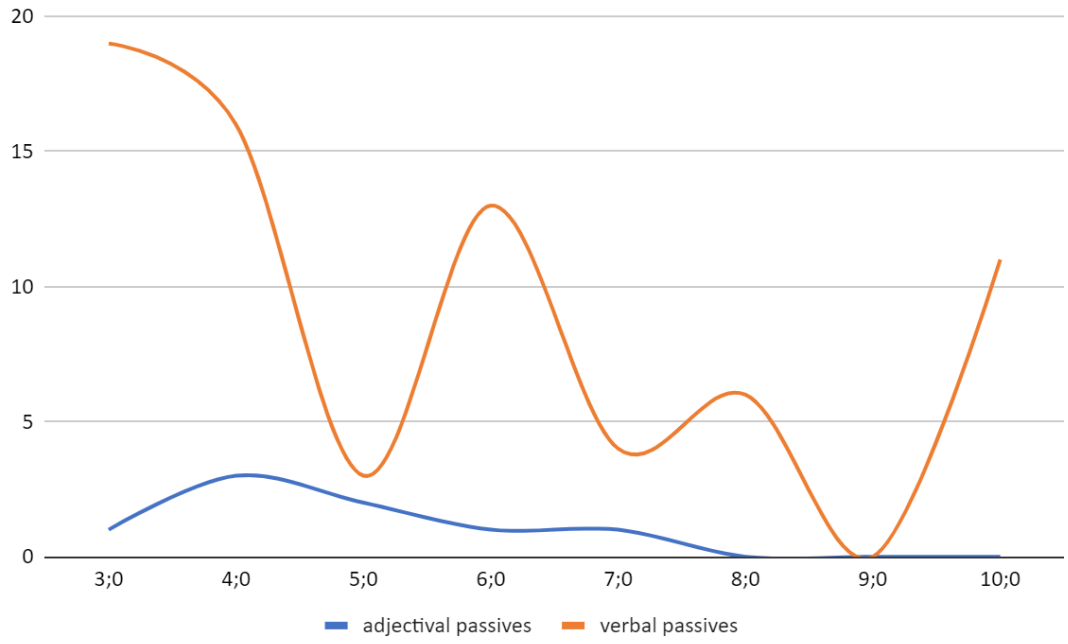
(*Fifth 10, Carterette corpus)*

This result could imply that there is indeed a problem in this case with the production (not only with the comprehension then) of the by-phrase that delays this type of passive.

6.2. Research question 2: will there be any difference in the production of adjectival or verbal passives?

This research question poses the problem of the ambiguity in the interpretation of the passive sentence. In a lot of cases there is no way to know if the children are producing an adjectival passive or a verbal passive even paying attention to the context where they are produced. However, after analyzing the data obtained from the corpora, results show that out of the 80 passive utterances found in the data, 8 could be classified as adjectival passives (10%) while 72 as verbal passives (90%). This indicates a clearly higher number of verbal passives than adjectival passives. The more frequent production of the adjectival passives is found at the age of four where 3 instances were found, as figure 3 shows.

Figure 3. The production of adjectival and verbal passives by age



As we can see in figure 4, adjectival passives are more frequently produced at younger ages but the use of these passives declines at later ages. We could not find clear instances of adjectival passives produced after the age of seven.

Figure 4. Distribution in percentages of adjectival and verbal passive by age

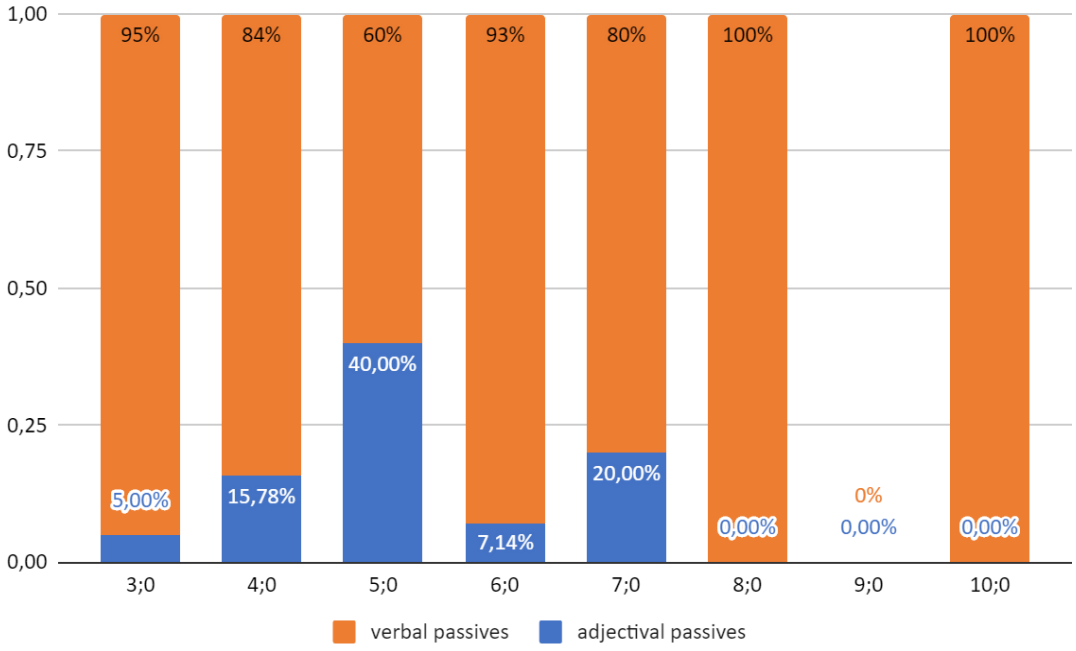


Figure 4 illustrates the percentages of verbal and adjectival passives found in the data. As we mentioned before, verbal passives, as (18), are produced more frequently (90%) than adjectival passives (10%), as (19).

(18) *CHI: if they always get captured by a robber

[*Mark 4;03, MacWhinney corpus*]

(19) *CHI: I don`t care if my table gets messed up

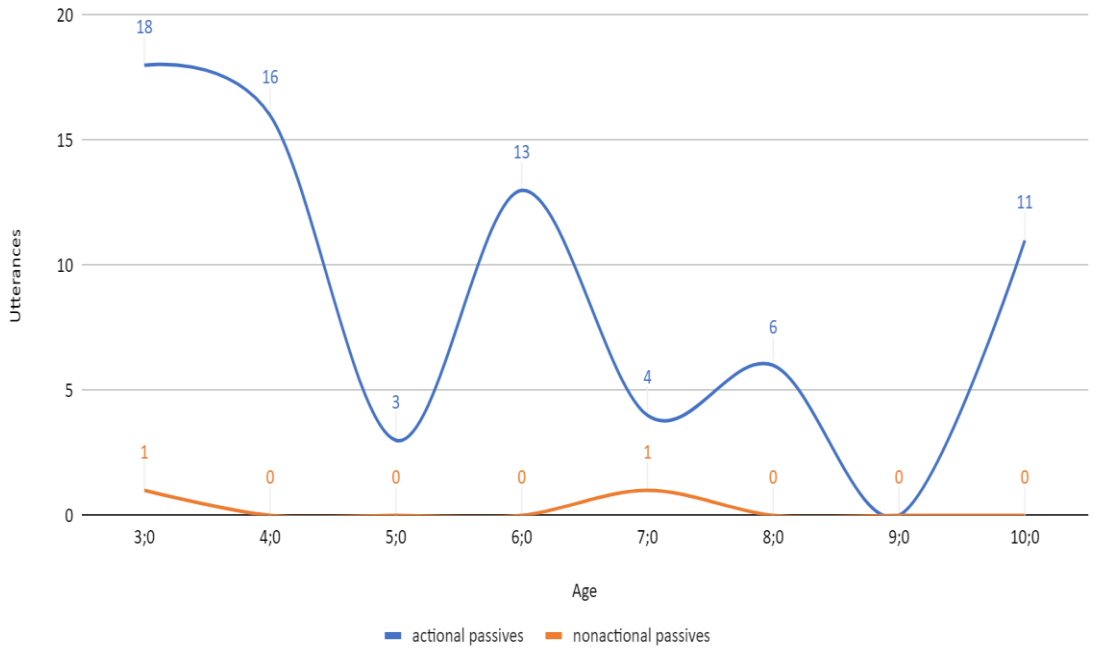
[*Adam 5;02, Brown corpus*]

At the same time, we can clearly see in figure 4 that at every age range verbal passives are more frequent than adjectival passives, especially at later ages (8-10) where verbal passives are the totality of the passive utterances found. This result seems to be in line with the possibility of adjectival passives being more difficult to form than verbal ones (see section 2.2.). However, other factors like frequency or ambiguity should be taken into consideration.

6.3. Research question 3: Will actional verb passives be more frequent than nonactional verb passives?

This research question aims to observe if actional passives are more frequently produced than nonactional passives in spontaneous speech of children. In section 3 we presented a study by Maratsos et al. (1985) that dealt with the acquisition and comprehension of actional and nonactional passives in children. This study concluded that children understand better actional passive sentences. Therefore, we intend to see if this is also reflected in their production corroborating the results of Maratsos et al. or not. Figure 5 contains information of the production of actional and nonactional passives by age.

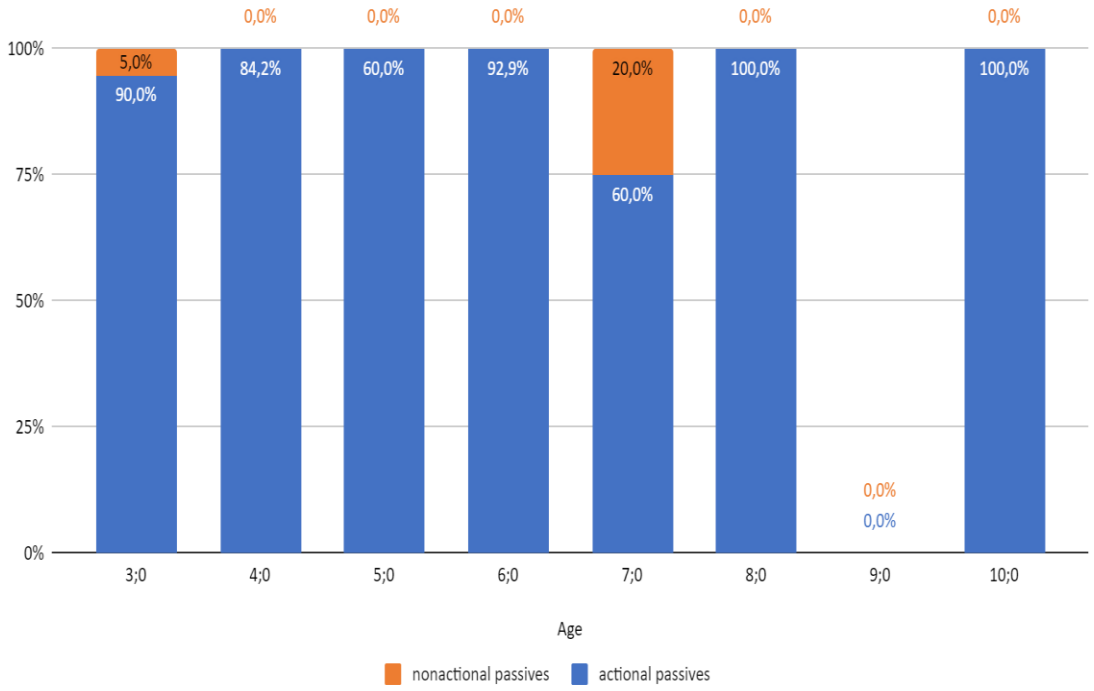
Figure 5. The production of actional and nonactional passives by age



As figure 5 clearly shows actional passives are vastly more produced (70 total utterances which represent 97,2%) than nonactional passives (2 total utterances which represent 2,8%). As with short and long passives, the percentages are based in the total amount of verbal passives found which are 72, the remaining 8 passives corresponding to the adjectival passives. Therefore, regardless of their age, children produce actional

passives more frequently than nonactional passives. We show the percentages by age of both types of passive in figure 6.

Figure 6. Distribution in percentages of actional and nonactional passives by age



This figure serves to show how infrequent (almost non-existent) nonactional passives, like those in (20) and (21) (the only two instances found in the data), are in children's spontaneous production by each year-old period.

(20) *CHI: well it just well you don't really ever get bugged by any thing

(*Ross 7;05, MacWhinney corpus)*

(21) *CHI: when we get frightened

(*Adam 3;05, Brown corpus)*

On the other hand, plenty of examples of actional passives were found in the data, like those in (22) and (23).

(22) *CHI: The bad lion got killed by Tarzan

[*Ross 4, MacWhinney corpus*]

(23) *CHI: This piece was ripped in half

[*Sarah 4;01, Brown corpus*]

According to this result, it seems that the children of our study have not yet mastered the production of nonactional passives or maybe the situations in which the data occur do not need the use of nonactional verbs (i.e. verbs used to describe states, senses, etc.).

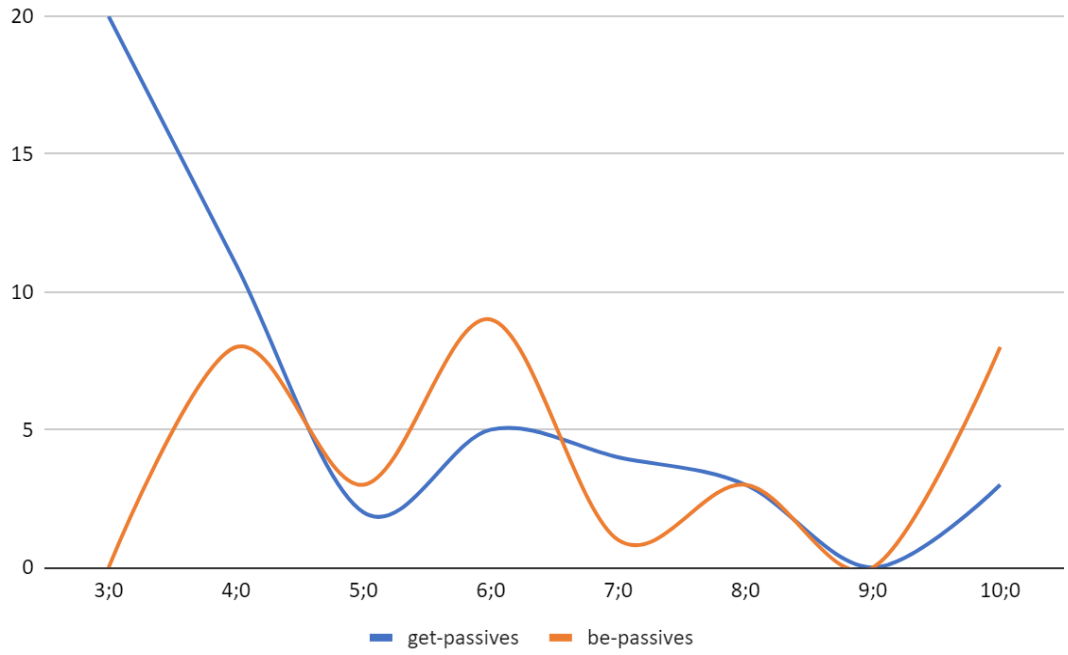
As for the combination of short/long *versus* actional/nonactional passives typologies, although in Fox and Grodzinsky (1998) short nonactional passives are better understood than long nonactional passives, in our study this difference is not reflected in the production of the monolingual children. Our results show, instead, that out of the 2 nonactional passives produced, one was short and the other one long, so no conclusive statements can be derived from these scarce results. However, in the case of actional passives, short and long varieties are more frequently produced, more specifically the short actional passive is the structure that is more predominantly produced (the total number of short actional passives is 49 which represent a 68,05% of the total verbal passives). Therefore, our results clearly show that both short and long nonactional passives are a structure that children do not seem to master and thus hardly produce it, which does not parallel the results obtained by Fox and Grodzinsky (1998) in the case of passives comprehension by English monolingual children.

Although not being one of the objectives considered *a priori* under this dissertation, the following section will introduce some information regarding the be-passives *versus* the get-passives production, which has proven to be relevant in our study.

6.4. BE-PASSIVES AND GET-PASSIVES

In this section the analysis carried out regarding the difference in the children´s production of be-passives and get-passives is shown. This comparison was not expected to be a result to be taken into consideration when putting forward the main aims of the present dissertation. However, interestingly we have found that get-passives are produced more frequently (48 out of 80, meaning 60% of the cases) than be-passives (32 out of 80, which represent 40%).

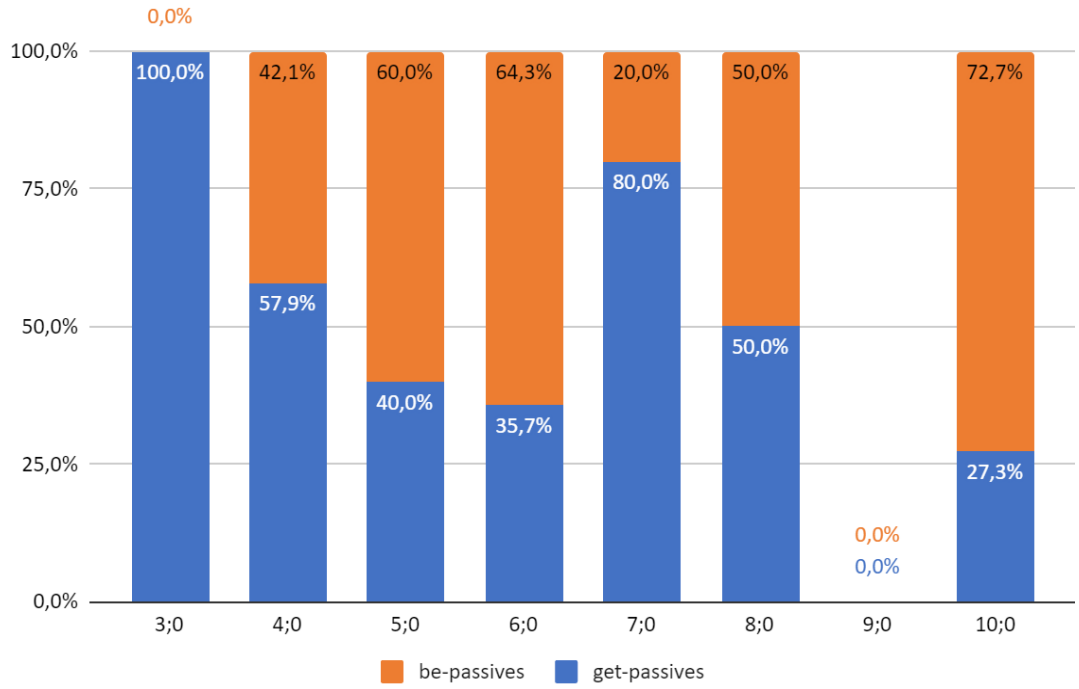
Figure 7. The production of be-passives and get-passives by age



As figure 7 shows, especially at younger ages (from 3 to 5), children seem to produce get-passives more frequently than be-passives, a tendency that decreases at later ages (from 6 onwards). Although the difference between both passive auxiliary verbs is not huge it is still significant until the age of 5 and we believe it could be due to the fact that all the children analyzed in this study were American English speakers. According to Sussex (1982) get-passives are more commonly used in American English than in Australian or British English. Furthermore, according to Mair and Hundt (1997, in Collins and Peters,

2004: 347), among other studies, the use of get-passives is rapidly increasing in all English varieties of the world, which is attributed to the informalization of the written language and norms.

Figure 8. Distribution in percentages of be-passives and get-passives by age



As we can see in figure 8 get-passives are generally more frequently produced than be-passives except in the 5 and 6 year-old period where *be* is the auxiliary verb that the children use more often. Later in their development, be-passives become again more frequently produced being its highest percentage of production at the age of 10.

Once all the results from the analysis have been described, the main points of discussion derived from it will be put forward in the following section.

6.5. General discussion

The results of this study show that significant differences can be found between the production and acquisition of the different types of passives, therefore obtaining clear answers to our research questions: the analysis proves that short passives are produced more frequently than long passives across all the ages selected for the study. This difference is greater at younger ages, as results show an increase in the use of long passives the older the children are, which are parallel to the results obtained by previous studies on passives comprehension (Messenger et al., 2012). Then, it seems that the passive acquisition production and comprehension go hand in hand as far as this typology is concerned.

According to the information obtained from the study, we can also observe that verbal passives are more frequent in English monolingual children's production at every age span. Nevertheless, more investigation could be done in order to find out if this still true at younger ages, since only the production of children older than three years old was examined. At the same time, this research question was hard to answer due to the ambiguity of the adjectival or short verbal passives and therefore, in many cases context was not useful enough to help us define which type some cases belonged to. From this viewpoint, it seems that the change of category and the argument externalization in the adjectival passives mentioned by Guasti (2002) (see section 2.2) are processes that seem to imply more difficulties in the production of this type of passives by children and maybe they will be acquired later. At the same time, other factors such us their frequency in speech (maybe not as frequent as verbal passives) and ambiguity should be taken into consideration in the analysis of adjectival passives.

The third and last research question addressed the production of actional and nonactional passives. This research question was clearly answered by the study, showing a significantly higher number of actional passives than nonactional passives. Moreover, nonactional passives are barely present in children's spontaneous production. However, this study could not offer a conclusive result about the combination of different typologies

(long/short *versus* actional/nonactional passives), although the English monolingual children tended to produce more short than long actional passives.

Finally, a distinction between the productions of get-passives and be-passives was observed during the realization of the study. As we explained under section 6.4 get-passives were more frequently produced than be-passives. This could be due to the colloquialization of the written norm that is translated into an increased popularity in the spontaneous production of this structure (Mair and Hundt, 1997, in Collins and Peters, 2004: 347) or to the fact that all the children analyzed for the study were American English speakers, who tend to produce get-passives more frequently than Australian or British English speakers (Sussex, 1982). It would be interesting to see if get-passives continue being more frequently produced at later ages or if it just occurs at younger ages.

7. CONCLUSION

This research work has focused on the production of passive structures, more specifically, on the production of passives according to a 3-fold typology discussed under section 2: short passives *versus* long passives, adjectival *versus* verbal passives and actional *versus* nonactional passives. We started the dissertation introducing the theoretical background about these types of passives. Then, we presented some of the main studies dealing with some of the types of passives selected for this study as there are no studies focusing on all the types of passives as far as we know. Our objectives dealt with the production of passives at these three levels that could be found in the spontaneous production of seventeen English monolingual children.

All in all, this study has shown that children produce passive structures from the age of three, especially short ones, which parallels the results from passives comprehension studies. Furthermore, our results favor those provided by Fox and Grodzinsky (1998) that argued that short passives are understood earlier than long passives. We reject the results by Maratsos and Abramovitch (1975) which stated that there are no significant differences between short and long passives since our results clearly show otherwise. Regarding adjectival and verbal passives, a maturation effect seems to appear in this type of passives.

Adjectival passives are more frequently produced at younger ages and decay over time. Nevertheless, verbal passives are more frequently produced at every age span than adjectival passives. Moreover, the evidence from this study confirms the results of Maratsos et al. (1985) regarding the better comprehension of actional passives over nonactional passives. Our production study shows that children perform significantly better in actional passives than in nonactional passives.

Finally, while carrying out this study some questions and interesting ideas for further research arose. Our results indicate that short and actional passives are widely more produced than long or short nonactional passives. More monolingual children should be analyzed in order to come to more definite conclusions. Younger children could be studied in order to observe which of these types appears first. Another research that could be done is the analysis of the input the children receive and find out if the differences in the production of passives are due to this factor: a study on the production of the adults with whom the children interact could be done in order to find out the frequency of the three types of passives and if it influences the children's passives production.

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