



Syntactic structure and information structure: the acquisition of Portuguese clefts and be-fragments

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Review

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Abstract

This paper investigates the acquisition of different types of clefts and of be-fragments in European Portuguese. We first present the main syntactic and discourse properties of different cleft structures and of be-fragments in European Portuguese and we discuss how data from first language acquisition may contribute to evaluate different theoretical proposals. Based on data from spontaneous production and on data from an elicited production task, we argue that: i) there is a clear asymmetry, stemming from intervention effects, between subject clefts and object/adjunct clefts, not only in spontaneous production but also in elicited data, which confirms previous findings on other structures involving A' dependencies; ii) the production of elided clefts is easier to the children's processing system than the production of full standard clefts; iii) acquisition data confirm the analysis of certain fragments (be-fragments) as elided clefts; iv) the asymmetry between clefts featuring a wh-constituent and other clefts should be understood as late development of a particular type of anaphoric dependency.

Keywords: clefts, be-fragments, intervention effects, language acquisition, Portuguese

1. Introduction

Different languages display different clefting strategies and use them in different pragmatic contexts. Clefts are interesting for several reasons. From a syntactic perspective, clefts are structures that activate the left periphery, and in which an

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2
3 operator-variable chain is established. As for the syntax-discourse interface, clefts
4
5 involve an association between a specific syntactic structure and a focus reading, and
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7 each cleft type has specific semantic-pragmatic constraints. Furthermore, clefts are
8
9 structures that vary crosslinguistically in their syntactic structure, including tense and
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11 person agreement patterns of the copula. It is thus a challenging structure regarding the
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13 theory of grammar and the acquisition of syntax and of the syntax-discourse interface.
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16 In European Portuguese (EP) there are several clefting strategies, including
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18 fragment structures with the verb *be* that can be used to focus a constituent. Although
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20 there is no consensus in what concerns the syntactic analysis of the different clefting
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22 strategies, there are obvious superficial differences between them.
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25 Based on spontaneous production data and on an elicited production task, we
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27 will thus discuss whether the frequency and order of emergence of the different clefting
28
29 strategies and *be*-fragments can be related to the syntactic properties of the different
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31 clefting strategies. In particular, we will provide answers to the following questions: i)
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33 which focusing strategies do children prefer?; ii) do children resort to the same focusing
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35 strategies as adults do?; iii) do we find intervention effects in clefts similar to the ones
36
37 described for *wh*-questions and relatives? iv) are some clefting strategies more difficult
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39 to acquire than others? v) if so, why?
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43 The paper is organized as follows: in section 2, we describe the main syntactic
44
45 and discourse properties of EP clefts and of *be*-fragments; in section 3, we review
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47 previous studies on the acquisition of clefts and on the acquisition of structures that
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49 share syntactic properties with clefts; in section 4, we present the main theoretical
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51 questions that will be under discussion; in section 5, we report our findings on the
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53 acquisition of clefts in EP based on spontaneous production data; in section 6, we report
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on an experiment designed to elicit contrastive focus (including clefts) and in section 7 we discuss the general results.¹

2. Clefts and fragment answers

In standard European Portuguese, as described by several authors (Casteleiro 1979, Ambar 1999, Costa & Duarte 2001, among others), the following clefting patterns are found²:

- (1) a. Foi a Branca de Neve que o príncipe beijou. [standard cleft]
 was the White of Snow that the prince kissed
 ‘It was Snow White that the prince kissed.’
- b. Foi a Branca de Neve quem o príncipe beijou. [wh-cleft]
 was the White of Snow who the prince kissed
 ‘It was Snow White who the prince kissed.’
- c. Quem o príncipe beijou foi a Branca de Neve. [pseudocleft]
 who the prince kissed was the White of Snow
 ‘Who John kissed was Snow White.’
- d. A Branca de Neve foi quem o príncipe beijou. [inverted pseudocleft]
 the White of Snow was who the prince kissed
 ‘Snow White was who John kissed.’
- e. A Branca de Neve é que o príncipe beijou. [*é que* cleft]
 the White of Snow is that the prince kissed
 ‘It was Snow White that the prince kissed.’

¹ We would like to thank John Grinstead and the anonymous reviewers for useful comments on the paper and useful suggestions, which significantly contributed to its improvement.

² In non-standard varieties of European Portuguese, there are other clefting types (see Costa & Lobo 2009, Vercauteren 2010).

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2
3 f. O príncipe beijou foi a Branca de Neve. [be cleft]
4
5 the prince kissed was the White of Snow
6
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8

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10 As can be seen in the glosses, all cleft types have a copula, a form of the verb *be*,
11 which in most cases agrees with the main verb in tense (*é que* clefts (1e) are the only
12 ones that do not exhibit tense agreement). The subordinate clause may be introduced by
13 the complementizer *que* (equivalent to ‘that’ in English) (1a) or by a wh-pronoun (1b-
14 d). In be-clefts (1f) there is no subordination marker.
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20
21 EP also displays other structures that some authors consider to be derived from
22 clefts, namely fragments introduced by the copula *be* (Matos 1992, a.o.). These
23 fragments, which we will call be-fragments, can occur in answers to questions (2) or in
24 contrastive contexts (3):
25
26
27
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29
30
31

- 32 (2) Q. Quem beijou o príncipe?
33

34 who kissed the prince
35

- 36 A. Foi a Branca de Neve.
37

38 was the White of Snow
39

40 ‘Who did the prince kiss? It was Snow White.’
41
42
43
44

- 45 (3) Não foi a rainha que o príncipe beijou. Foi a Branca de Neve.
46

47 not was the queen that the prince kissed. Was the White of Snow
48

49 ‘It wasn’t the queen that the prince kissed. It was Snow White.’
50
51
52
53

54 All these structures can be used to focus a constituent, but they do not share the
55 same syntactic and discourse properties. In the following sections, we will consider the
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1
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3 syntactic and discourse properties of clefts and be-fragments that are relevant for the
4
5 understanding of the main issues that are at stake concerning language acquisition. We
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7 will consider in particular: i) the main syntactic properties of EP clefts and their
8
9 fundamental differences; ii) the main discourse properties of EP clefts and whether they
10
11 are all felicitous in the same discourse contexts; iii) the main syntactic and discourse
12
13 properties of be-fragments and whether they may be treated as partially elided clefts.
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15

16 17 18 **2.1 The syntax of EP clefts** 19

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22 Different analyses have been suggested for clefts in general and Portuguese
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24 clefts in particular. There is therefore some controversy concerning the analysis of the
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26 different types of clefts. This discussion is important since distinct syntactic analyses
27
28 raise different predictions for language acquisition.
29
30

31
32 One of the aspects about which there is disagreement concerns the status of *é que*
33
34 clefts ('is-that clefts'). Some authors treat these structures as underlying identificational
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36 copular structures (Costa & Duarte 2001), whereas others claim that they are simple
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38 sentences, in which *é que* behaves as a lexicalized expression that fills the C position
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40 (Soares 2006, Lobo 2006, a.o.).
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42

43
44 Two empirical facts support the claim that *é que* in clefts is a lexicalized expression:
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46 in *é que* clefts the copula does not share *phi*-features with the clefted constituent nor
47
48 does it share tense features with the matrix verb, it is invariable, independently of the
49
50 grammatical function of the clefted constituent, as shown in (4), where the subject is
51
52 clefted, and in (5), where the object is clefted:
53

- 54 (4) a. Os rapazes é que partiram o vaso. [subject *é que* cleft]
55
56 the boys is that broke-3pl the vase
57
58
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1
2
3 b. *Os rapazes são que partiram o vaso.

4 the boys are that broke-3pl the vase

5
6
7 c. *Os rapazes foi/foram que partiram o vaso.

8 the boys was/were that broke-3pl the vase

9 'It was the boys that broke the vase.'

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14 (5) a. Estes rapazes é que o professor castigou. [object *é que* cleft]

15 these boys is that the teacher punished

16
17
18 b. *Estes rapazes são que o professor castigou.

19 these boys are that the teacher punished

20
21
22 c. *Estes rapazes foi/foram que o professor castigou.

23 these boys was/were that the teacher punished

24 'It was these boys that the teacher punished.'

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31
32 In contrast, in standard clefts (6a), wh-clefts (6b) and pseudoclefts (6c), there is
33 obligatory tense agreement between the copula and the main verb (Ambar 2005) and
34 there is person and number agreement between the copula and a clefted subject³:
35
36
37
38
39

40 (6) a. Foram os rapazes que partiram o vaso. [subject standard cleft]

41 were the boys that broke.3pl the vase

42
43
44 a'. *É/São/Foi os rapazes que partiram o vaso.⁴

45 is/are/was the boys that broke.3pl the vase

46
47
48 b. Foram os rapazes quem partiu o vaso. [subject wh-cleft]

49 were the boys who broke.3sg the vase

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51
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54
55 ³ There is, however, some variation among speakers with respect to person agreement with a clefted
56 object.

57 ⁴ In this respect, EP contrasts with English or French, in which the copula can be in the present tense even
58 when the main verb is in the past tense.
59
60

1
2
3 b'. *É/São/Foi os rapazes quem partiu o vaso.

4 is/are/was the boys who broke.3sg the vase

5
6
7 c. Quem partiu o vaso foram os rapazes. [subject pseudocleft]

8 who broke.3sg the vase were the boys

9
10
11 c'. *Quem partiu o vaso é/são/foi os rapazes.

12 who broke.3sg the vase is/are/was the boys

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18 Furthermore, in *é que* clefts, nothing can intervene between *é* 'is' and the
19 complementizer *que* 'that' (Ambar 1999, Costa & Duarte 2001, Ambar 2005, a.o.), as
20 shown in (7):
21

22
23
24 (7) *Este aluno *é realmente que* teve a melhor nota.

25 this student is really that had the best mark

26
27 'It was really this student that had the best mark.'

28
29
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31
32
33 Therefore, although there are some divergent analyses in the literature, it is plausible to
34 consider that *é que* 'is-that' clefts (unlike standard clefts, wh-clefts and pseudoclefts)
35 are simple clauses, in which *é que* is a lexicalized expression that occupies a functional
36 category in the left periphery of the clause, in the C domain (Lobo 2006, Soares 2006).
37

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42 We may consider that the clefted constituent moves from a TP internal position⁵ to the
43 specifier position of a higher functional category:⁶
44
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48

49
50 ⁵ It is not our goal to discuss the exact array and hierarchy of functional projections. For the subject under
51 discussion, it is sufficient to distinguish between a higher functional domain – the CP domain – and a
52 lower functional domain – the TP domain.

53 ⁶ The fact that there can be interveners between the clefted constituent and *é que* supports an analysis
54 according to which the clefted constituent and *é que* are not in the same syntactic projection, as assumed
55 in Soares (2006), Ambar (2005) and Vercauteren (2010). It is possible to find sentences as i) in which an
56 adverb precedes *é que*:

57 i) O João realmente *é que* sabe isso (Ambar 2005: 119)
58 the João really is that knows that
59 'It is John who knows that really'

1
2
3 (8) [_{XP} Estes meninos_i [_{X'} [_{CP} [_{C'} [_C é que] [_{TP} t_i partiram o vaso]]]]]
4
5 these boys is that broke.3pl the vase
6
7
8

9
10 As for standard clefts, wh-clefts and pseudoclefts, again there is no consensus in the
11 literature concerning the status of the embedded clause and the status of the clefted
12 constituent. There are basically three different positions: 1) some authors treat all these
13 structures as copular identificational structures in which the embedded clause is a type
14 of headless relative (Costa & Duarte 2001), the clefted constituent being generated in a
15 kind of small clause; 2) other authors treat all these structures as biclausal sentences in
16 which the copula selects a complement clause and the clefted constituent is moved from
17 that complement clause to a left peripheral position (Ambar 2005); 3) other authors also
18 maintain that these structures are biclausal sentences but they distinguish standard clefts
19 from clefting strategies in which the embedded clause is introduced by a wh-constituent
20 (Soares 2006, Lobo 2006): in the case of standard clefts, the clefted constituent is
21 moved from the selected embedded CP, whereas in wh-clefts, pseudoclefts and inverted
22 pseudoclefts the clefted constituent is base-generated in a position internal to a small
23 clause and has to establish a dependency relation with the wh-constituent.
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40 We will follow the third position, and assume specifically that in standard clefts: i)
41 the clefted constituent is A'-moved from a position internal to the embedded clause to
42 the periphery of the embedded CP; ii) there is no wh-movement, contrary to what
43 happens in wh-clefts, pseudoclefts and inverted pseudoclefts. Thus, standard clefts
44 differ from *é que* clefts to the extent that they involve an embedded CP and they differ
45 from wh-clefts and pseudoclefts to the extent that they are not underlying small clauses
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relative clause⁹. Den Dikken, Meinunger & Wilder (2000) also argue against a free relative analysis of the *wh*-clause, at least as far as English specificational pseudoclefts are concerned (see also Ross 1972, Hankamer 1974 and Bošković 1997), and they claim that it is an embedded *wh*-question¹⁰. Barbosa (2013) follows a similar proposal for Portuguese specificational pseudoclefts. However, note that one can assume that free relatives and embedded interrogatives have an identical syntactic structure, following Ott (2011). So, even if the exact nature of the *wh*-clause is open to discussion, it seems to us that a crucial point is the fact that the *wh*-clause is an unselected CP in which *wh*-movement takes place and in which the dependency between the focused constituent and the embedded clause is not established via movement. Instead, an anaphoric relation must be established between the *wh*-constituent and the focused constituent (see 10, the constituents involved in the anaphoric relation are represented in bold).

- (10) a. [TP foi [SC [DP **o João**]_i [SC [CP **quem** chegou atrasado]] t_i]]¹¹
 was the João who arrived late
- b. [TP [CP **Quem** chegou atrasado]_i foi [SC t_i [DP **o João**]]]
 who came late was the João

To a certain extent, this relation is not different from an anaphoric relation established between a *wh*-constituent and its antecedent. However, since (10a) and (10b) are cleft structures, this anaphoric relation also implies Focus-marking, and the computation of a *focus value* (also *alternative value* or *P-set*) (see Büring 2007). In

⁹ Her main arguments come from the tense restrictions that *wh*-clauses exhibit, unlike relative clauses. See Ambar (2005) for the details of the proposal.

¹⁰ See Den Dikken (2005) and references cited there for the discussion of the nature of the *wh*-clause.

¹¹ As mentioned above, Costa & Duarte (2001) assume that in these structures the *wh*-clause occupies the subject position of the small clause. To derive the order in (10a), they assume that the clefted constituent has been scrambled to a position adjoined to the small clause. An alternative proposal would be to consider that the clefted constituent may be generated either in the subject position or in the predicate position of the small clause. For the subject under discussion, we only need to specify that these clefts involve embedding of a *wh*-clause in an unselected position either as subject or predicate of an identificational structure.

1
2
3 particular, this anaphoric relation is the basis to determine which node is marked as
4
5 focused in an otherwise common identificational syntactic structure.
6

7 The detailed discussion of the syntactic properties of clefts falls beyond the scope of
8
9 this work and therefore we will not examine the different hypotheses on the syntactic
10
11 structure of wh-clefts and pseudoclefts. We will essentially retain four central properties
12
13 of these constructions: i) they are copular sentences with a small clause structure, ii) one
14
15 of its major constituents is a wh-clause, iii) the wh-clause is not selected by a verb; iv)
16
17 they additionally require an identification relation between a constituent and the wh-
18
19 phrase to be interpreted as resulting in a particular focus reading.
20
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22
23
24

25 Finally, be-clefts (also called *semipseudoclefts* in Costa & Duarte (2001), *be focus*
26
27 *structures* in Ambar (1999) or *that-less clefts* in Ambar (2005)) are also subject to
28
29 controversy, not only regarding their syntactic structure, but also the restrictions on the
30
31 clefted constituent. Some authors treat them as being derived from pseudoclefts with
32
33 some sort of deletion of the wh-constituent (Casteleiro 1979 and Kato & Raposo 1996),
34
35 while others treat them as simple sentences. Ambar (1999) maintains that be-clefts do
36
37 not involve embedding. Moreover, she treats the copula as a kind of resumptive form
38
39 coindexed with the lexical verb.¹² Costa & Duarte (2001) maintain that in be-clefts the
40
41 copula is the lexical head of a VP that selects a small clause; they suggest that only non-
42
43 maximal VPs may be clefted in this type of structure and they relate this fact to the
44
45 availability of null objects in Portuguese. Specifically, they say that the clefted
46
47 constituent cannot be a subject. Other authors, however, admit the clefting of subjects in
48
49 these structures (Ambar 1999), as shown in (11):
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57 ¹² The author assumes that there is movement of the entire remnant VP to a discourse-related projection in
58 the left periphery of the clause.
59
60

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2
3 (11) Não telefonou o reitor. Telefonou foi o diretor. [be-cleft]
4
5 Not phoned the rector. Phoned was the director.
6
7 ‘It wasn’t the rector who phoned. It was the dean that did so.’
8
9

10
11 Clefting a subject is indeed possible when the subject is in a post-verbal position,
12 more specifically, when it is embedded in a position internal to the VP – this is the
13 default position associated with information-focus.
14
15

16
17 There are several arguments that support an analysis of be-clefts as different from
18 pseudoclefts and as similar to simple sentences, including licensing of negative polarity
19 items, availability of clefting with auxiliary verbs, availability of clefting of more than
20 one constituent. This may suggest, following Mioto (2012), that the copula signals the
21 left periphery of vP and marks the material internal to vP as contrastively focused, as
22 shown in (12). Defocused vP internal material will be moved by *scrambling* outside the
23 vP domain (12c, 12d and 12e).¹³
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- 33
34 (12) a. Dançou foi a Maria. [be-cleft]
35 danced was the Mary
36
37 ‘It was Mary that danced’
38
39
40 b. A Maria limpou foi o quarto.
41 the Mary cleaned was the room
42
43 ‘It was her room that Mary cleaned’
44
45
46
47 c. Comeu o bolo foi a Maria.
48 Ate the cake was the Mary
49
50 ‘It was the cake that Mary ate’
51
52
53
54 d. A Maria ofereceu o carro foi ao João.
55

56
57 ¹³ The idea that there are forms of *be*, namely *é* ‘is’, *foi/era* ‘was’, that were reanalyzed as functional
58 elements finds an argument in the fact that the very same invariable forms found in be-clefts are used as a
59 polar element in affirmative answers to yes-no questions (see BE answers in Santos (2009a)).
60

1
2
3 the Mary gave the car was to.the John

4
5 'It was to John that Mary gave the car'

6
7 e. A Maria ofereceu ao João foi o carro.

8
9 the Mary gave to.the John was the car

10
11 'It was the car that Mary gave to John'

12
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14
15
16 This analysis distinguishes *be*-clefts from pseudoclefts and takes *be* as a focusing
17
18 particle that signals the left boundary of focused material. It explains why *be*-clefts are
19
20 the only cleft type in which it is possible to associate a contrastive reading to more than
21
22 one vP constituent, why they allow negative polarity items and why they allow focusing
23
24 of verbal domains selected by auxiliaries (Miotto 2012), a fact left unexplained if we
25
26 take these structures as underlying small clauses or underlying pseudoclefts.
27
28

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32 **2.2 Be-fragments**

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36 Some fragment structures have been analysed as truncated clefts (Matos 1992;
37
38 Santos 2004; Belletti, 2005, 2008; Soares 2006; Santos 2009b). These are discourse
39
40 fragments in which the verb *be* is followed by a constituent, typically in short replies
41
42 (13a) and they are distinct from simple fragments, which do not present any *be* form
43
44 (13b). We call the former *be*-fragments and the latter XP fragments. *Be*-fragments may
45
46 be found in answers to *wh*-questions, where the constituent following *be* conveys new
47
48 information (information focus) (13) or in correction contexts, where the constituent
49
50 following *be* bears contrastive focus (14):
51
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- 1
2
3 (13) - Quem chegou atrasado? / a) - Foi o Rui. / b) - O Rui.
4
5 who came late? / was the Rui / the Rui.
6
7 ‘- Who came late? / - Rui did. / - Rui.’
8
9

- 10
11 (14) - O João chegou atrasado. / - Não. Foi o Rui!
12
13 the João came late. / No. Was the Rui!
14
15
16 ‘- João came late. / - No! Rui did!’
17
18
19

20
21 Similarly to clefts, be-fragments display movement effects, and this favours their
22
23 analysis as elided clefts, differently from other fragment types.
24

25 Santos (2009b) shows, for instance, that be-fragments, such as (15b) are sensitive to
26
27 island constraints, unlike bare fragments (the case in 15a):
28
29

- 30
31 (15) Q. Ganhou o Nobel o escritor que escreveu o quê? (Santos 2009b: 127)
32
33 won the Nobel the writer that wrote what
34
35
36 A. a. *O Memorial do Convento*
37
38 *O Memorial do Convento*
39
40 b. ??/**Foi O Memorial do Convento.*
41
42 *was O Memorial do Convento*
43
44
45
46

47 Soares (2006) further shows that like in standard clefts, in EP be-fragments there
48
49 must be tense agreement between the copula and the main verb (in this case the verb of
50
51 the previous sentence) (16) and person agreement between the copula and the focused
52
53 subject (17):
54
55

- 56 (16) Q. Quem ganhou o Nobel?
57
58
59
60

1
2
3 who won the Nobel
4

5 A. a. *É o Saramago.
6

7 is the Saramago
8

9 b. Foi o Saramago.
10

11 was the Saramago
12

13 ‘Who won the Nobel? It was Saramago.’
14
15
16
17

18 (17) Q. Quem telefonou?
19

20 who phoned
21

22 A. a. Foram os teus pais.
23

24 were the your parents
25

26 b. *Foi os teus pais.
27

28 was the your parents
29
30

31 ‘Who phoned? It was your parents’
32
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35

36 In line with Matos (1992), Soares (2006) and Santos (2009b), we take be-fragments
37 as elliptical structures that derive from standard clefts. The elliptical structure would be
38 derived from deletion of the embedded clause when it corresponds to given information.
39 We thus assume, in line with the same authors, that be fragments (13a) and simple
40 fragments (13b) have different underlying structures: only the former are underlying
41 clefts.
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2.3. Some notes on the discourse properties of clefts (and be-fragments)

Concerning the pragmatic context in which clefts occur, there are differences between the different cleft structures. Although the discourse distribution of different cleft types has not yet been described in detail, different authors mention contextual restrictions on different cleft types. Ambar (2005: 112-113), for instance, observes that standard clefts in which the subject is clefted may constitute an answer to a question that requires the whole sentence to be new information, such as *What happened?* This is not possible when the object is clefted (see (18b)), nor with wh-clefts or pseudoclefts (see (18c) and (18d)).

- (18) - O que aconteceu?
 what happened?
- a. - Foi o vidro que se partiu. [standard subject cleft]
 was the glass that CL broke
 ‘It was the glass that broke’
- b. - # Foi o vidro que o João partiu. [standard object cleft]
 was the glass that the João broke
 ‘It was the glass that/what João broke’
- c. - # Foi o vidro o que se partiu. [subject wh-cleft]
 was the glass what CL broke
- d. - # O que se partiu foi o vidro. [subject pseudocleft]
 what CL broke was the glass
 ‘It was the glass that broke’

1
2
3 Additionally, Ambar (2005) observes that when the clefted constituent is new
4 information (non contrastive), as in answers to wh-questions, we may get standard clefts
5 (19a), wh-clefts (19b) and pseudoclefts (19c) as an answer (although standard clefts
6 may sound somewhat less adequate). We may also get a be-fragment (19d). However, *é*
7 *que* clefts (19e) or be-clefts (19f) are not adequate answers in either of these contexts: *é*
8 *que* clefts and be-clefts cannot be used to introduce new information.
9
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16 (19) Q. Quem é que convidou a Ana?

17 who is that invited the Ana?
18
19

20 A. a. ?Foi o Pedro que convidou a Ana.

21 was the Pedro that invited the Ana
22
23

24 b. Foi o Pedro quem convidou a Ana.

25 was the Pedro who invited the Ana
26
27

28 c. Quem convidou a Ana foi o Pedro.

29 who invited the Ana was the Pedro
30
31

32 d. Foi o Pedro.

33 was the Pedro
34
35

36 e. #O Pedro é que convidou a Ana.

37 the Pedro is that invited the Ana
38
39

40 f. #Convidou foi o Pedro.

41 invited was the Pedro
42
43

44 ‘It was Pedro (who/that invited Ana)’
45
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51
52 *É-que* clefts and be-clefts can only be found in contrastive contexts and seem to
53 necessarily convey a contrastive meaning (Ambar 2005 and Vercauteren 2010 for be-
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clefts). This distinguishes these types of clefts from standard clefts, wh-clefts and pseudoclefts.

It is worth considering that whereas focus on the object (including contrastive focus) can be obtained with prosodic strategies, maintaining the syntactic structure of the sentence, focus on the subject in Portuguese preferably requires an explicit syntactic strategy. This may be obtained either by inverting the subject (an option typically associated with information focus) or by using cleft structures. Contrastive stress on the preverbal subject (as occurs in English) implies stress shift in the sense of Reinhart (2006) and is possible in the case of contrastive focus, but it is not possible for information focus (see (20), a context of information focus, and (21), a context of contrastive focus):

(20) - Quem chegou?

who came?

- Chegou o Pedro. / #O PEDRO chegou.

came the Pedro / the Pedro came

‘- Who came? - Pedro did.’

(21) O João não telefonou.

the João not phoned

a. Telefonou o Pedro.

phoned the Pedro

b. O Pedro é que telefonou.

the Pedro is that phoned

c. O PEDRO telefonou.

the Pedro phoned

‘John did not phone. Pedro did.’

2.4. Summary

In this paper, we deal with cleft structures and *be*-fragments, which are all structures used to convey focus, either contrastive focus or information focus. The first relevant fact to retain about EP is that focus on the subject, unlike focus on the object, generally requires a well-defined syntactic strategy – VS order or clefting. Prosodic focus on the preverbal subject is also possible but restricted to contrastive focus.

We may say that there is an asymmetry between subjects and VP internal constituents, as far as focalization strategies are concerned, in the sense that focus on the subject, unlike focus on other constituents, rather entails using specific syntactic constructions. Focus on the object is more naturally conveyed by default stress.

Now, taking into account the empirical properties of the different cleft structures and *be*-fragments of Portuguese, we assume that:

- i) *é que* clefts are simple clauses in which *é que* is a lexicalized expression that bears a contrastive value and which is merged in a left peripheral functional projection (in the C domain);
- ii) standard clefts, *wh*-clefts and pseudoclefts are biclausal sentences;
- iii) in standard clefts and *é que* clefts, the clefted constituent moves to a left peripheral position;
- iv) pseudoclefts and *wh*-clefts derive from copular identificational structures and include a *wh*-clause as a major constituent;
- v) pseudoclefts and *wh*-clefts require an anaphoric relation between an XP and the *wh*-constituent, which is the basis to determine the focused constituent;
- vi) *be*-clefts are simple sentences in which *be* has been reanalysed as a contrastive focus marker in the left periphery of *vP*;

vii) be-fragments may be analysed as partially elided standard cleft structures.

Table 1 summarizes the relevant properties of the different types of clefts, as well as the properties of be-fragments. Since we assume that be-fragments are underlying standard clefts, they share all the properties of standard clefts, except the fact that they involve ellipsis. As we will see, delayed development will be a property of the class of cleft constructions that are marked as [+wh clause], for reasons to be discussed.

	Complex sentence	Wh-clause	Identificational structure	A'-movement of clefted XP	Information focus	Ellipsis
Standard cleft	+	-	-	+	+	-
Wh-cleft	+	+	+	-	+	-
Pseudocleft	+	+	+	-	+	-
<i>é que</i> cleft	-	-	-	+	-	-
Be-cleft	-	-	-	-	-	-
Be-fragment	+	-	-	+	+	+

Table 1 – Summary: properties of clefts and be-fragments.

3. Previous studies on the acquisition of clefts and related structures

3.1 Subject/object asymmetries

Studies on the acquisition of cleft structures are scarce. To the best of our knowledge, one of the first studies was carried out by Lempert & Kinsbourne (1980), who did a comprehension task (act out). Their results show that English speaking

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2
3 children from 2;05 to 6;03 perform significantly better on subject clefts than on object
4 clefts. Analogous results presenting a subject / object asymmetry in cleft production
5
6
7 have been reported for French by Hupet & Tilmant (1989). The results of the elicited
8
9
10 production task they conducted show that French speaking children from 4 to 10 years
11
12 produce significantly more cleft structures in the subject condition than in the object
13
14 condition. In fact, to focus the object, children only produce a small percentage of clefts
15
16 and they mainly prefer to produce contrastive stress on the object. Hupet & Tilmant
17
18 (1989) show that even the oldest children (10-year-olds) produce very few object clefts
19
20 (in what they call the patient condition).
21

22
23 A subject / object asymmetry has been found in other structures involving A'
24 movement but not focus, such as relatives (Friedmann & Novogrodsky 2004, a.o).
25
26 Friedmann, Belletti & Rizzi (2009) (following Grillo 2005, 2008) offer an explanation
27
28 for the asymmetry between subject and object movement dependencies in terms of
29
30 intervention. The children aged 3;07-5;00 they tested find it more difficult to understand
31
32 object relatives or object interrogatives that present an A'-moved object that shares
33
34 features with an intervening lexically filled subject. They consider that children, but not
35
36 adults, adhere to a stricter version of Relativized Minimality (RM), an economy
37
38 principle, possibly due to operative syntactic memory limitations. The child grammar
39
40 would not derive a structure in which a relativized object with a lexical NP restriction
41
42 (thus bearing the features [+R, +NP]) has been moved across a subject with a lexical NP
43
44 restriction (bearing the feature [+NP]). In contrast, an adult grammar accepts the same
45
46 configuration. The rationale is the following: in order to accept this configuration, the
47
48 child would have to calculate that the target and the intervener are in a subset-superset
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50 relation, an operation that would be difficult for an immature processing system. The
51
52 child thus applies a stricter version of RM, assuming that the target and the intervener
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3 must have disjoint features. This will exclude from the child grammar relativized lexical
4
5 objects moved across lexical (D+NP) subjects, but would allow the child to produce and
6
7 comprehend free object relatives (in this case, the moved element does not have a
8
9 lexical NP restriction). Errors in adult performance involving comprehension of object
10
11 relatives (or interrogatives) would confirm the difficulty of this configuration (Costa,
12
13 Grillo & Lobo 2012).
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20 21 **3.2 Clefts and syntactic complexity** 22 23

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25 Several studies have taken computational complexity as a possible explanation for
26
27 order of emergence and avoidance strategies in language acquisition (Soares 2006;
28
29 Jakubowicz 2004, 2005, 2011; Delage et al. 2008, a.o.). Soares (2006) argues that
30
31 computational complexity may explain the order of emergence of different structures
32
33 that involve the left periphery in the acquisition of European Portuguese, including
34
35 clefts. She specifically claims that the emergence of the different types of clefts in
36
37 Portuguese-speaking children's production is constrained by syntactic complexity. Her
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39 claim stems from Jakubowicz's (2004, 2005, 2011) proposal that language acquisition is
40
41 affected by developmental constraints such as the capacity of working memory, which
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43 are sensitive to the computational complexity of the derivation. For Soares (2006)
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45 embedding gives rise to more complex derivations since it entails a dependence relation
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47 between the head of the embedded clause and a superordinate category. According to
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49 this proposal, clefts that do not involve embedding are expected to emerge earlier in
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51 child speech.
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3.3 Anaphoric dependencies in clefts

Other factors justifying a delay in language development may be found in work inspired by Reinhart (2004). Structures that involve reference-set computation and a comparison between two or more entire derivations are more costly and develop later. Even though it is not clear whether clefts involve this kind of mechanism, we do know that some interface phenomena and some anaphoric relations, in a broad sense of anaphora, take some time to develop. Phenomena that have been found difficult to acquire include the interpretation of null and overt pronouns (Grinstead 2004, Silva 2014), the interpretation of strong pronouns in object position (Chien & Wexler 1990, Grodzinsky & Reinhart 1993, Grolla 2010), stress shift and focus (Reinhart 2004, Szendroi 2004). It may be argued that all these structures involve the computation of a set of alternatives. In the case of pseudoclefts and wh-clefts, the focused XP defines a specific value for the set of alternatives made available by the wh-constituent (Rooth 1992). Note, however, that all clefts involve a kind of comparison between members of a set, since in all of them we have a focused XP which is somehow contrasted to a set of alternatives. Only in pseudoclefts and wh-clefts, though, will children have to establish an anaphoric relation between the wh-constituent and an XP and, on the basis of this relation, establish which constituent is focused in an identificational structure.

It is thus possible that clefting strategies that require the establishment of a dependency relation between the clefted XP and a wh-constituent in an identificational structure (a dependency established without movement of the focused XP) are harder than clefting strategies that involve movement of the clefted XP. In this case, we expect pseudoclefts and wh-clefts to develop later.

3.4 Fragments and ellipsis

As pointed out in section 2, several researchers have claimed that fragment answers introduced by the copula *ser* ('be') are partially elided clefts. Soares (2006) shows that children start producing be-fragments, which are scarce, much later than XP fragments (in her spontaneous data, XP fragments are attested from 1;02 and be-fragments are only attested from 2;00,26; clefts are attested from 2;07,26). Santos (2009b) also shows that XP fragments emerge before be-fragments in children's production (XP fragments are attested from 1;06 and be-fragments from 1;09). Moreover, clefts emerge later (from 2;03.08 for one of the two children that she observed and from 2;01,07 for the other). Both Soares and Santos claim that be-fragments are elliptical clefts, even though standard clefts emerge much later than be-fragments. To account for this fact, Soares (2006) proposes that the derivation of be-fragments, which are elliptical structures presenting unpronounced constituents, is less complex than the derivation of clefts.

Santos (2006, 2009b) suggests that the production of an elided structure is "probably easier for the child immature processing system than the production of the fully pronounced structure." (Santos 2009b: 134). Santos' approach is inspired in Rizzi's (2000, 2005) account of early null subjects. According to Rizzi, dropping a subject may be a less complex option for the child's immature processing system, but this option can only be available if it is allowed by the child's grammar. Given two grammatical options, the child chooses the one that imposes fewer demands on processing and, apparently, not pronouncing the structure is less heavy. Assuming a PF-deletion account of ellipsis, a be-fragment corresponds to the syntactic derivation of a (standard) cleft but is not totally phonologically overt. It might be that given this grammatical option, the child might prefer to produce the elided structure.

4. Research questions

The hypotheses found in the literature on acquisition of clefts and other structures involving A' movement allow us to make predictions for the acquisition of European Portuguese.

First, if the subject / object asymmetry in relatives and interrogatives is a general fact explained by a difficulty in extracting a DP across an intervener (in the terms of Friedmann, Belletti & Rizzi 2009), we predict that the same type of asymmetry is found in clefts. Moreover, if VP internal material may be prosodically focused in EP by default but focus on the subject is generally conveyed by particular syntactic structures (e.g. VS word order or clefting), a subject / object asymmetry in the production of clefts is actually expected to exceed the subject / object asymmetry observed in relatives or interrogatives (in these last cases, no other structure is available to convey the same meaning).

Second, if computational complexity plays a role in language acquisition (Jakubowicz 2004, 2005, 2011; Soares 2006; Delage et al. 2008), we expect to find differences in the acquisition of different focusing structures. In fact, according to the analysis sketched in section 2, the cleft structures available in EP involve different derivations and presumably different degrees of syntactic complexity. It is then expected that the age of acquisition of the different EP cleft structures as well as their frequencies will not be the same. Note that an analysis that presupposes that all cleft structures have the same underlying representation (Costa & Duarte 2001) makes a very different prediction. If embedding does increase the complexity of a derivation (Soares

2006), we expect *é que* clefts to be acquired earlier than standard clefts, for example, because the latter entail embedding.

Third, as for wh-clefts, pseudoclefts and inverted pseudoclefts, these structures contain an unselected wh-clause as a major constituent and require an anaphoric relation between the wh-constituent and an XP. Wh-movement *per se* should not be problematic, since it is available very early in the child grammar¹⁴, even though it is a well-known fact that some types of relatives, namely relatives involving pied-piping, are acquired later than others (Labelle 1990, Guasti & Cardinaletti 2003). Establishing an anaphoric relation between a wh-phrase and another constituent in an identificational structure should also not be problematic by itself: Duarte, Santos & Alexandre (2014) show that children below 3 years of age are able to produce structures that involve an anaphoric relation between a null operator and another constituent inside an identificational structure. However, pseudoclefts and wh-clefts are clefts, and the anaphoric relation between the wh- and an XP determines which constituent is interpreted as focus. Thus, it may be the case that pseudoclefts and wh-clefts are more difficult, because to produce them children have to know that the focused constituent in the identificational structure is determined on the basis of the anaphoric relation between this constituent and the wh-constituent¹⁵. As mentioned above (3.3), other structures that involve anaphoric dependencies in a broad sense take some time to develop (Grinstead 2004, Silva 2014, among others). It is reasonable to suppose that some dependency relations represent an additional burden for children and that, in the case of clefts, a dependency relation which determines focus marking will be particularly problematic.

¹⁴ See Guasti & Rizzi (1996) and references cited there and Soares (2006) for Portuguese.

¹⁵ The derivation of the wh-clause by itself should also not be a problem for children. Results from comprehension studies show that free relatives in object position are comprehended well by children aged 3;7 – 5;0 (Friedmann, Belletti & Rizzi 2009, Costa, Grillo & Lobo 2012).

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2
3 Finally, if be-fragments are underlying standard clefts, we expect this structure to be
4 more difficult for children than XP fragments (simple fragments); but if an elided (PF-
5 deleted) structure may be produced before its overt counterpart, we expect be-fragments
6 to be more productive earlier than their overt counterparts (standard clefts).
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11 As a final note, be-clefts are not predicted to be particularly problematic for
12 children, unless they focus a (VP-internal) subject and they involve scrambling of the
13 object across the subject (in this case, this movement could create intervention effects).
14
15

16 The study presented here is designed as a first step to evaluate these predictions. We
17 analysed both EP spontaneous production data and elicited production data. The
18 spontaneous production data will allow us to discuss Soares' (2006) claims concerning
19 first stages of multiword production; the elicited production task allows us to evaluate
20 the productivity of the different types of cleft structures (among other structures
21 conveying contrastive focus) from 3 to 5 years of age.
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31 These data may add both to our knowledge of the acquisition of clefts and to our
32 knowledge of the syntax of clefts and related fragments.
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38 **5. Spontaneous production data**

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43 The first set of data that we will consider in this paper is child spontaneous speech,
44 as well as child directed speech. Soares (2006) had already presented an analysis of
45 clefts in a corpus of child speech, suggesting certain tendencies but acknowledging the
46 fact that the frequency of the different cleft types was low in spontaneous production. In
47 what follows, we combine Soares' results with the results of the analysis of a different
48 corpus (Santos corpus, Santos 2006). This will allow us to discuss the frequency of the
49 different cleft types in the spontaneous production of six different children (the details
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of the two corpora are presented in tables 2 and 3).¹⁶ Additionally, child data will be compared with adult spontaneous data, which have been analysed in the child directed speech samples available in Santos corpus.

Child	Age	MLUw	Number of files	Number of child's utterances
INI	1;06,06 – 3;11,12	1.527 – 3.815	21	6591
TOM	1;06,18 – 2;09,07	1.286 – 2.954	16	6800
INM	1;05,09 – 2;07,24	1.315 – 2.370	15	5101

Table 2 – Santos corpus.

Child	Age	MLUw	Number of files	Number of child's utterances
MAR	1;02,00-2;02,17	1.3-2.5	12	3945
SAN	2;06,03-3;05,17	2.4-3.7	12	7249
CAR	3;06,24-4;06,18	2.7-4.5	14	7690

Table 3 – Soares corpus.

In table 4, we present the number of occurrences of the different cleft types in the speech of the six children. We also state (within parentheses) the age of first occurrence of each cleft type.

¹⁶ Both the data for INI (Santos corpus) and the data for MAR (Soares corpus) were collected by Maria João Freitas for her PhD research (Freitas 1997) and for the project PCSH/C/LIN/524/93 developed at Laboratório de Psicolinguística, Faculdade de Letras da Universidade de Lisboa. The data were transcribed according to the CHAT format (MacWhinney 2000).

	MAR (1;02-2;02)	INM (1;05-2;07)	TOM (1;06-2;09)	SAN (2;06-3;05)	INI (1;06-3;11)	CAR (3;06-4;06)
<i>é que</i> cleft	0	1 (2;03)	10 (2;03)	25 (2;07)	14 (2;01)	49 (3;06,24)
Standard cleft	0	0	8 (2;01)	34 (3;00)	10 (2;03)	45 (3;06,30)
Wh-cleft	0	0	0	1 (3;00)	0	0
Pseudocleft	0	0	0	0	0	1 (3;10)
Inverted pseudocleft	0	0	0	0	0	1 (4;04)
Be-cleft	0	0	2 (2;04)	3 (2;07)	2 (3;04)	4 (4;00)
Proto-cleft	0	2 (1;10)	1 (2;09)	1 (2;07)	5 (2;07)	0

Table 4 – Different cleft types in child speech (spontaneous production).

In this table, we include proto-clefts, which correspond to non-target cleft structures, namely clefts with an omitted *que* (see (24)).

(24) INI: eu é so(u) e(m)p(r)egada. (target: “eu é que sou a empregada”)

I is am employee

One of Soares' (2006) claims is that *é que* clefts should precede standard clefts in production. The relevant data to test this claim are the data from INM, TOM, SAN and INI (MAR was recorded only until 2;02 and does not produce clefts in this period; CAR's recordings start at 3;06, when she already produced both types of clefts). In fact, SAN and INI produce *é que* clefts before they produce standard clefts, even though the time between the first occurrence of each structure is small;¹⁷ INM produces an *é que* cleft at 2;03 (MLUw 1.7), but she does not produce other clefts. However, TOM's

¹⁷ SAN's MLUw at first use of *é que* clefts is 2.7 and her MLUw at first use of standard clefts is 3.0. INI's MLUw at first use of *é que* clefts is 2.35 and her MLUw at first use of standard clefts is 2.98.

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3 data show a different pattern in initial stages: standard clefts emerge at 2;01, slightly
4
5 before *é que* clefts, which emerge at 2;03 (in both cases MLUw > 2.0). The first
6
7 occurrence of a cleft for TOM coincides with the file where values of MLUw become
8
9 superior to 2.0.
10

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12 In order to determine the probability of an *é que* cleft occurring before the onset
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14 of standard clefts, given the relative frequencies of *é que* clefts and standard clefts, we
15
16 used a binomial test, according to its use by Grinstead (2004), Grinstead & Spinner
17
18 (2009) and Snyder (2007). This test takes the number of occurrences of the
19
20 constructions at issue, *é que* clefts, over the number of the occurrences of standard clefts
21
22 plus the number of *é que* clefts produced in the whole corpus by each child. As far as
23
24 SAN is concerned, we notice that in her 13 recordings, following her first use of an *é*
25
26 *que* cleft, there were 25 *é que* clefts and 33 standard clefts. The ratio of *é que* clefts to *é*
27
28 *que* clefts plus standard clefts is 0.43. Between the first *é que* cleft that SAN produced
29
30 and the first standard cleft she used, there were two *é que* clefts (across five recording
31
32 sessions that covered about five months). To determine the probability that a standard
33
34 cleft could have been produced among the first two *é que* clefts, we calculated
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36 $0.43^2=0.18$. This result shows no significant difference between the onset of *é que* clefts
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38 and the onset of standard clefts in her production. The same test applied to INI data
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40 equally showed that there was no significant difference between the onset of *é que* clefts
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42 and the onset of standard clefts in her production ($p=0.58$). Thus, there is no statistically
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44 significant difference for both INI and SAN between the onset of *é que* clefts and the
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46 onset of standard clefts and these data are not sufficient to confirm Soares' (2006)
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48 hypothesis that *é que* clefts are less complex than standard clefts. Further empirical
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50 support is needed.
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Moreover, production data do show that clefts that include a *wh*-clause are rare (see Table 4, above). INM, TOM and INI do not produce *wh*-clefts, pseudoclefts or inverted pseudoclefts; SAN produces one *wh*-cleft at 3;00 (MLUw 3.0):

(25) SAN: Não é esta o que eu quero ! 3;00,21
 not is this what I want
 'It is not this one that I want.'

CAR produces one pseudocleft at 3;10 (MLUw 2.8) and one inverted pseudocleft at 4;04 (MLUw 4.5). The frequency of her *é que* clefts plus standard clefts is significantly higher than the frequency of clefts involving a *wh*-element (pseudoclefts and inverted pseudoclefts) – this is confirmed by a 1-sample proportions test ($\chi^2(1) = 86.2604, p < .001$)¹⁸. So, we do have a frequency contrast between *é que* clefts and standard clefts, on the one hand, and clefts that display a *wh*-clause. But CAR is the oldest child and we have to consider the hypothesis that her behaviour is close to adults' behaviour. We will compare children's production data and child directed speech after examining other properties of children's production.

Clefts presenting a *wh*-constituent are not attested before age 3;00. But the statistic analysis of the data did not allow us to conclude that these clefts emerge later than other cleft types in the spontaneous production¹⁹. However, note that there are four children that never produce clefts featuring *wh*-constituents – MAR, INM, TOM and INI. As we suggested before, this may be due to the fact that children have to learn that, besides the dependency established by movement of the *wh*-constituent to the left

¹⁸ This type of test was performed using the software R (R Core Team, 2014).

¹⁹ Note that in data from SAN, the only *wh*-cleft is attested when first standard clefts emerge. Moreover, the binomial test applied to SAN data showed that there was no significant difference between the onset of *é que* clefts and the onset of *wh*-clefts ($p = .924$). The binomial test applied to data from CAR showed that there was no significant difference between the onset of *é que* clefts and the onset of clefts with a *wh*-constituent ($p = .398$), as well as no significant difference between the onset of standard clefts and the onset of clefts with a *wh*-constituent ($p = .568$).

periphery of the clause, they have to establish an anaphoric dependency between the clefted constituent and the wh-constituent in order to determine focus.

Be-clefts are also rare in child speech. In (26), we present one case, produced by TOM at 2;04 (MLUw 2.2); in this case, an object is clefted; (27) presents a case in which a VP under an auxiliary is clefted.

(26) TOM: olha # tem que ti(r)ar é # o t(r)iângulo. 2;04,00

look must take is the triangle

'It is the triangle that he must take.'

(27) INI: eu ach(o) qu(e) el(e) ia era cai(r) dali de cima. 3;04,6

I think that he was.going was to.fall from up there

'It is falling from up there that I think he was going to.'

A relevant aspect of the emergence of clefts in production concerns the type of clefted constituents. Table 5 presents the number of clefted subjects, objects and adjuncts in child speech²⁰.

Subject clefts	Object clefts	Adjunct clefts
148	27	30

Table 5 – Clefts broken down by type of clefted constituent.

²⁰ There are also other types of clefted constituents, such as clefted VPs in be-clefts, which were not taken into account here. Those cases are residual.

As we showed in section 3.1, there are known subject-object asymmetries in the production and comprehension of clefts and, especially, other structures involving movement to the left periphery, namely relative clauses. Children (and also adults, to some extent) generally show difficulties with object relatives but not with subject relatives. Our data indeed show that subject clefts are significantly more frequent than object clefts, as shown by the result of the 1-sample proportion test (with continuity correction) applied to the data of subject and object clefts ($\chi^2(1) = 82.2857, p < .001$).

Still, from the statistical analysis of the data we cannot conclude that subject clefts emerge before object clefts²¹. First object clefts occur at 3;05 (INI) and 3;00 (SAN). But all *é que* and standard object clefts attested in our corpora never involve moving a lexical overt noun phrase within a DP over another lexical overt noun phrase within a DP. In these object clefts, either the crossing object or the crossed subject is a pronoun (28 and 29, respectively). To this extent, these data would be in agreement with what is expected according to Friedmann, Belletti & Rizzi's account: when the subject or the object is a pronoun, no intervention effects are expected (see their account of free object relatives and headed object relatives with a null subject pronoun).

(28) SAN: É o pequenino que eu quero. 3;00,21

is the small that I want

'It is the small one that I want.'

(29) TOM: é e(s)ta qu(e) o Tá(s) conta? 2;01,07

is this that the T(om)ás tells

'Is it this one that Tomás tells?'

²¹ MAR and INM do not produce the relevant clefts. TOM and CAR produce subject and object clefts from the first recording session. The binomial test applied to SAN data showed that there was no significant difference between the onset of subject clefts and the onset of object clefts ($p = .611$). The same test applied to INI data showed that there was no significant difference between the onset of subject clefts and the onset of object clefts ($p = .505$).

Children also produce other interesting related structures: subject clefts with topicalized objects. In these cases, a direct object is moved to an A-bar position, crossing a filled subject position (30, 31). Again in these cases either the moved object or the subject are pronouns.

(30) TOM: e(s)ta foi a Totó que deu. 2;01,07

this was the Totó that gave

'This one, it was Totó that gave.'

(31) INI: este (de)senho fui eu que fiz. 3;11,12

this drawing was I that did

'This drawing, it was I that did it.'

However, a last note is needed in light of the results in table 5: if we take into account the relative frequency of subject, object and adjunct clefts, what we really notice is a significant subject / non-subject asymmetry (1-sample proportions test with continuity correction ($\chi^2(1) = 39.5122, p < .001$)). This may result from the contexts observed, which may present more often occasions in which a subject is contrasted, but it may also receive a different explanation. We return to this question when discussing the results of the elicited production task.

Finally, another relevant remark concerns apparent associations between types of clefts and types of clefted constituents. As expected if *be* in *be*-clefts signals the left periphery of the VP (see the brief discussion in section 2.1), *be*-clefts are used to cleft internal arguments (see 26 above) and the complement of auxiliaries (see 27). But the data also allows another association: *é que* clefts are always used to cleft subjects or adjuncts, except for the oldest child, CAR; standard clefts are used not only to cleft

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3 subjects but also to cleft objects. This will be a relevant point when we will compare
4
5 child data with child directed speech.
6

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8 Up to this point, we have seen that the spontaneous production data are not
9
10 conclusive concerning a possible developmental difference between *é que* clefts and
11
12 standard clefts. However, the same data show a difference between clefts involving wh-
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14 elements and other clefts to the extent that the first type is absent in the first stages of
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16 cleft production. These data also show that subject clefts are more frequent (and more
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18 frequent earlier) in child speech, a fact that fits into the picture of known subject-object
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20 asymmetries. We have also suggested a difference in the distribution of different types
21
22 of clefts concerning the type of clefted constituent. Of course, we should consider the
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24 possibility that these effects mirror the distribution of the data in child directed speech
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26 and, consequently, that frequency in the input might contribute to explain these
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28 contrasts.
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30

31
32 In order to evaluate the influence of the input, we coded all adult utterances in Santos
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34 corpus, using the criteria defined to code child speech. We therefore coded all cleft
35
36 structures in the 55591 utterances produced by adults. The following table represents
37
38 the cleft structures produced by adults in the corpus:
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40
41
42

<i>é que</i> clefts	290 (49%)
Standard clefts	193 (33%)
Be-clefts	92 (16%)
Pseudoclefts	13 (2%)
Inverted pseudoclefts	3 (0,5%)

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54 Table 6 – Cleft structures (by type) produced by adults in Santos corpus.
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The first clefts attested in spontaneous production – *é que* and standard clefts - are the most frequent in adult speech. Pseudoclefts and inverted pseudoclefts, which are attested late, are very infrequent in adult speech. Interestingly, wh-clefts, which also emerge late in child production, are not attested in child directed speech.

On another note, the proportion of subjects and internal arguments clefted in adult speech is similar to what was found in child production. In table 7 we present the frequency of subject clefts, adjunct clefts and clefts involving an internal argument (direct object, indirect object or oblique) only in the context of the two most frequent types of cleft structures, *é que* and standard clefts. As the numbers in the table show, subject clefts are by far the most frequent case of clefting with *é que* and standard clefts.

Subject clefts	299 (64%)
Adjunct clefts	85 (18%)
Internal arguments (direct object, indirect object, oblique argument)	81 (17%) (from these, 65, i.e. 14%, are direct objects)

Table 7 – Cleft structures produced by adults in Santos corpus: subjects, adjuncts and internal arguments.

The third more frequent type of cleft structure, be-clefts, is generally taken to exclude subject clefting (see Costa & Duarte, 2001). Our data does not confirm the unavailability of subject clefts with be-clefts, though: adults produce 7 (out of 92) be-clefts with a clefted subject, including cases with a subject DP (see 32) and with clauses as subject (see 33). All cases involve post-verbal subjects, a possibility in EP, which is a null subject language. Our data also show that be-clefts may be used to cleft constituents in the DP, namely complements of the noun (see 34). The fact that be-clefts

may be used to cleft a subject (or even constituents internal to the DP) argues against the association between be-clefts and null objects suggested by Costa & Duarte (2001).

(32) a. ADU: só vêm é maus para esta família.

only come is bad guys to this family

'Only bad guys come to this family.'

b. ADU: mas está ali é o pequenino.

but is there is the little one

'But it is the little one who is there.'

(33) ADU: vai ter piada é depois vê-la com a irmã.

will be funny is later see her with the sister

'What will be funny will be seeing her later with her sister.'

(34) ADU: olha # tenho impressão é que isto não está muito bem hoje # sabes ?

look have impression is that this NEG is very well today know-2sg

'Look, what I think is that this is not very well today, you know?'

Moreover, we equally find in adult speech the same type of differences in distribution of subject and object clefts per type of cleft: as shown in table 8, *é que* clefts are mostly used to cleft subjects (69,5%) and adjuncts (23,6%) and only to a small extent are they used to cleft internal arguments (direct object, indirect object or oblique complements) (6,9%); in contrast, 32,6% of the standard clefts produced by adults present a clefted internal argument. The difference in the distribution reported in table 8 is highly significant, as shown by the results of a chi-square test ($\chi^2(2) = 56.025$, $p < .001$).

			Syntactic_Function			Total
			ADJU	Internal arguments	SU	
Type_of_cleft	Standard	Count	20	62	108	190
	cleft	% within Type_of_cleft	10,5%	32,6%	56,8%	100,0%
	<i>É que</i> cleft	Count	65	19	191	275
		% within Type_of_cleft	23,6%	6,9%	69,5%	100,0%
Total		Count	85	81	299	465
		% within Type_of_cleft	18,3%	17,4%	64,3%	100,0%

Table 8 – Type of clefted constituent in standard clefts and *é que* clefts.

These results are to some extent in agreement to those obtained in the analysis of child speech, although they do not mirror them exactly: all children except the oldest never produce *é que* object clefts.

Thus, the analysis of child directed speech carried on in this section does not allow us to exclude that frequency in the input may play a role in determining child data, at least concerning the frequency of different clefting strategies and the distribution of syntactic functions of the clefted constituent per type of cleft.

We should remember, however, that these data are from spontaneous production alone and this means that the frequency of the different types of clefts, both in adult and in child speech, varies as a function of other factors, including discourse factors. In particular, it might be that speakers did not produce as many object or adjunct clefts as subject clefts simply because they had no opportunity to do it, i.e. these types of clefts were not relevant in the context. Thus, the obvious question is: would speakers produce more object or adjunct clefts if they had the chance? In a controlled context, in which a particular constituent is contrastively focused, what types of clefts would speakers

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3 produce? In the next section, we report an experiment designed to elicit the production
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5 of contrastive focus, and thus different types of clefts.
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8 9 **6. Elicited production data**

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14 In this section, we present the results of an elicited production task. The results
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16 obtained will allow us to further discuss our initial hypotheses, to an extent not allowed
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18 by the spontaneous production data.
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20 21 22 **6.1. Methodology**

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27 Given the spontaneous production results obtained and described in the
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29 preceding section, showing some, but limited, production of cleft structures between
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31 1;10 and 4;06, we have designed an experiment in order to determine whether children
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33 would produce a larger set of cleft structures if they encountered the relevant discourse
34
35 context. Thus, as in Hupet & Tilmant (1989), we have offered children an appropriate
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37 discourse context (creating the “functional necessity”) for structures conveying contrast,
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39 which crucially include cleft structures: the context creates in children the necessity to
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41 “contrast their own belief or knowledge with that of their addressee” (Hupet & Tilmant,
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43 1989: 251). The test consists of a series of images representing the day of a family,
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45 which a puppet describes. Although it had a different goal, from the child’s point of
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47 view the task is similar to a truth value judgment task using images: the child’s task is to
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49 determine whether the puppet is correctly describing the picture and, in the case it is
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51 not, to correct it. In the test items, there is a discrepancy between the description
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53 presented by the puppet and the picture – in this case, the child must correct the puppet
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3 and a natural context for a cleft structure is created. The puppet's utterances are always
4 simple sentences with no cleft structure. Figure 1 is the first picture in the story and was
5 used to present the family. Figure 2 exemplifies a test item, corresponding to the item
6 presented in (35), a case in which the mismatch affects the subject of the sentence.
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Figure 1 is the first picture in the story and was used to present the family. Figure 2 exemplifies a test item, corresponding to the item presented in (35), a case in which the mismatch affects the subject of the sentence. Figure 3, corresponding to the test item in (36), exemplifies a case in which the mismatch affects the direct object. Following Hupet & Tilmant (1989: 255), and trying to avoid deictic responses (e.g. "This is grandma"), the wrong element is always present in the picture.



Figure 1 – Introduction.

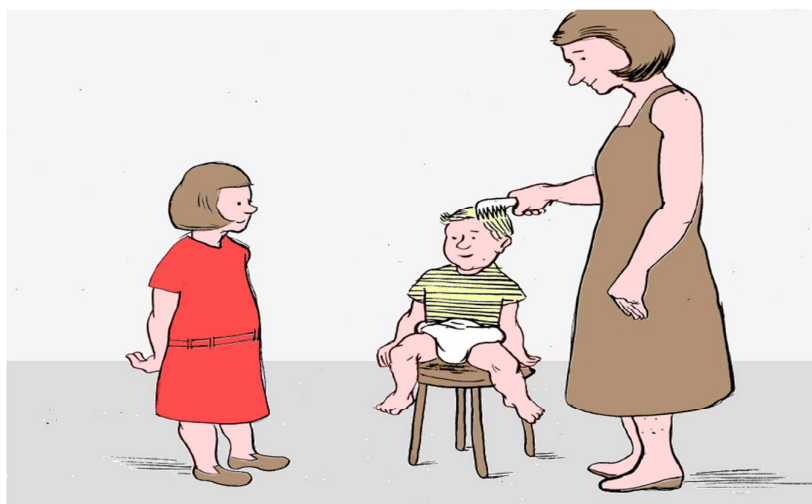


Figure 2 – Test item in (35)

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5 (35) Puppet: “O pai está a pentear a menina.”

6
7 the dad is PREP comb the girl

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9 Dad is combing the young girl.
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31 Figure 3 – Test item in (36).
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35 (36) Puppet: “A mãe está a pentear a menina.”

36
37 the mum is PREP comb the girl

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39 ‘Mum is combing the young girl.’
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The test was therefore based on the assumption that clefts convey contrast, i.e. clefted material is contrastively focused (see e.g. Kiss 1998) – see also section 2, where it is assumed that all clefts occur in contrastive contexts, although some of them may occur in other contexts, namely information focus. Nevertheless, it was assumed that not only clefts convey contrastive focus and thus that the task could elicit clefts as well as other structures (e.g. fragments, simple sentences with prosodic contrastive focus).

Such an open task was (i) the (only) natural way to elicit clefts and (ii) the only way to assess children's *preference* for particular structures, namely particular cleft structures.

The test includes four conditions, defined according to the adjunct / argument status or type of argument contrasted: the test tries to elicit subject clefts, direct object clefts, indirect object clefts and adjunct clefts. The indirect object condition included 4 test items, all the others included 10 items each. The test also included at least two training items and 10 distractors, i.e. cases in which the puppet's utterance is a correct description of the picture. Training items were just included to train the task, not the structures. These were cases in which the mismatch in the puppet's utterance concerned the color of some item in the picture ("This chair is orange", looking at a yellow chair) or the identity of a character ("This is the cat", pointing to the dog).

We tested a control group of 22 adults with no background in linguistics (age ranging from 18 to 48) and three groups of monolingual children acquiring European Portuguese: 14 3-year-olds (age range 3;02-3;11, mean 3;06), 20 4-year-olds (age range 4;00-4;11, mean 4;06) and 17 5/6-year-olds (age range 5;00-6;02, mean 5;06). Children's and adults' responses were both annotated during the testing sessions and audiotaped. All the answers were transcribed and checked against the notes taken during the session. Responses were coded according to the structure produced – in (37) we present the main types produced. Cleft structures were additionally coded according to the clefted constituent (argument / adjunct and type of argument).

(37) a. *é que cleft*

O bebé é que a mãe está a pentear.

the baby is that the mum is PREP comb

'It is the baby that mummy is combing.'

b. *Standard cleft*

É o bebé que a mãe está a pentear.

is the baby that the mum is PREP comb

‘It is the baby that mummy is combing.’

c. *Standard cleft with an omitted complementizer*

É o bebé a mãe está a pentear.

is the baby the mum is PREP comb

‘It is the baby that mum is combing.’

d. *SER ‘be’ fragment*

É o bebé.

is the baby

‘It is the baby.’

e. *XP fragment*

O bebé.

the baby

‘The baby.’

f. *Simple sentence*

A mãe está a pentear o bebé.

the mum is PREP comb the baby

‘Mummy is combing the baby.’

g. other

Except for the structure in (37c), all the structures are grammatical options, simple sentences often occurring in these contexts with prosodic focus in the contrasted constituent. The omission of the complementizer in a cleft (37c) corresponds to the type of complementizer omission already identified in other structures, such as complement clauses, in the first developmental stages of European Portuguese (Soares 2006, Santos 2006) and other languages (Clahsen, Kursawe & Penke 1996, a.o.). Note that the cases coded as a standard cleft with an omitted complementizer were restricted to cases not presenting a prosodic break between the clefted constituent and the material to its right: the cases where this break occurs (e.g. 38) were coded as a SER 'be' fragment (37d) followed by a sentence with a null argument recovering the XP in the fragment.

(38) É o bebé # a mãe está a pentear.

is the baby the mum is PREP comb

'It is the baby. Mummy is combing him.'

As a final note, we should describe the protocol followed when applying the test. During each session, the puppet uttered each test item and waited for the child's answer. When the child answered using a cleft, the experimenter moved to another test item. However, when the child used a different structure, the puppet would insist according to the following patterns:

(39)

- a. If the child answers with a simple sentence, the puppet says "Ok, now I got it." And then he repeats the wrong description (i.e. the original test item);

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3 b. If the child answers with a SER 'be' fragment (e.g. "É o bebé.", 37d), the
4 puppet asks "É o bebé o quê?" (lit. 'Is the baby what?');
5
6
7 c. If the child answers with an XP fragment (e.g. "O bebé.", 37e), the puppet
8 asks "O bebé o quê?" (lit. 'The baby what?').
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14 The first strategy is simply a mean to give the child another chance to produce a
15 cleft, something relevant since a cleft is not the only possibly adequate answer to the
16 elicitation context. The rationale justifying the two last strategies is the following: if it is
17 true, as some researchers have suggested, that at least some of these fragments are clefts
18 with omitted (elided) material, and if the child does project these fragments as such,
19 then we would be eliciting the production of a fully phonologically overt cleft.
20 However, given the fact that the experiment was long and given children's limited
21 attention span, we could not insist by using these strategies in all test items, especially
22 with younger children. These strategies were used a few times with all the children, but
23 the frequency in their use depended on the child's interest in the game during the
24 session. For this reason, we divided the data in two sets that we analyze separately: first
25 responses – in this case, all children have an equal number of responses and the
26 elicitation utterance was the same in all cases; second responses – these cases are a
27 complement to the discussion of the data and the analysis considered the type of
28 structure used to elicit each response.
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49 6.2. Results

50 The following table represents the responses obtained in the subject condition. In the
51 table, 'é que SU' stands for an *é que* subject cleft, 'standard SU' stands for a standard
52 subject cleft, 'cleft 0that SU' stands for a cleft with an omitted complementizer. The
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tables presented in this section represent mean percentage of the means of each individual child (along with standard deviation (*SD*)); they also include information on the number of occurrences (N) of each type of answer in each group. Only the first responses were taken into account in the information included in the tables.

	é que SU	StandardS U	Cleft 0that SU	Pseudo cleft	Wh- cleft	BE fragment	XP fragment	Simple sentence	Other
3- year- olds	16% (SD 0.33) (N=22)	1% (SD 0.05) (N=2)	0 (N=0)	0 (N=0)	0 (N=0)	15% (SD 0.25) (N=21)	40% (SD 0.37) (N=56)	23% (SD 0.36) (N=32)	5% (SD 0.08) (N=7)
4 – year- olds	1% (SD 0.02) (N=2)	3% (SD 0.11) (N=6)	0 (N=0)	0 (N=0)	0 (N=0)	58% (SD 0.35) (N=117)	24% (SD 0.28) (N=48)	12% (SD 0.24) (N=24)	3% (SD 0.06) (N=5)
5- year- olds	20% (SD 0.29) (N=34)	11% (SD 0.17) (N=19)	1% (SD 0.02) (N=1)	0 (N=0)	0 (N=0)	29% (SD 0.28) (N=50)	11% (SD 0.21) (N=18)	28% (SD 0.30) (N=48)	0 (N=0)
Adults	27% (SD 0.30) (N=59)	14% (SD 0.24) (N=31)	0 (N=0)	2% (SD 0.05) (N=5)	5% (SD 0.18) (N=12)	<1% (SD 0.02) (N=3)	<1% (SD 0.02) (N=1)	50% (SD 0.38) (N=110)	1% (SD 0.03) (N=2)

Table 9. Results in the subject condition.

The results in the subject condition show that different groups prefer different structures to focus a subject: adults mostly produce simple sentences (with a prosodically contrasted subject) and they also produce a relevant number of *é que* clefts. Children in general produce simple sentences less often (the rates of production of simple sentences by children and adults are significantly different, Mann-Whitney

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2
3 $U=811.500$ $p = 0.002$) and less clefts (even though the difference between adults and 5-
4
5 year-olds in the rate of *é que* and standard clefts, the two types of clefts produced by
6
7 children, is not significant). The most frequent answer in the 3 and 4-year-old groups is
8
9 fragments. In fragments, only the focused material is produced, whereas given material
10
11 is elided. Be-fragments, possibly elided (standard) clefts, attain their highest frequency
12
13 among 4-year-olds. A Kruskal-Wallis test confirms a general difference between the
14
15 three child groups ($H(3) = 14.006$, $p = 0.001$). Two Mann-Whitney tests confirm
16
17 significant differences between the 3 and the 4-year-olds (Mann-Whitney $U=235.5$, $p <$
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19 0.001) and between the 4 and the 5-year-old groups (Mann-Whitney $U=88.500$, $p =$
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21 0.012).

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25 As we described before, when the child produced a fragment as an answer, the
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27 experimenter often insisted, trying to obtain a full sentence (these second answers are
28
29 not included in the counts reported in the table). The 4-year-old group, which is the
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31 group producing more be-fragments, does produce standard clefts, the majority as an
32
33 answer to a question that follows a be-fragment (see 40a). The same group of children
34
35 also produces sentence completion utterances such as (40b), a fact suggesting that these
36
37 children do take be-fragments to be partially elided clefts.
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43 (40) Child: *É o gato.*

44
45 is the cat

46
47 Frog: *É o gato o quê?*

48
49 is the cat what

50
51 Child: a. *É o gato que está a morder a bola.*

52
53 is the cat that is PREP bite the ball

54
55 Child: b. ... *que está a morder a bola.*

1
2
3 that is PREP bite the ball
4

5 'that is biting the ball.
6
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10 In the groups producing more cleft structures (5 year old children and adults), the
11 production of *é que* clefts is more frequent than the production of standard clefts -
12 however, this difference does not reach significance in neither of the groups as indicated
13 by the results of a Related Samples Wilcoxon Signed Rank Test (5 year-olds: $T=24.5$, p
14 > 0.05 ; adults: $T=37.5$, $p > 0.05$). Both types of clefts are produced by both groups.
15
16 The higher frequency of *é que* clefts, even though not statistically significant, may be a
17 consequence of a preference to use an *é que cleft* to cleft a subject (also observed in the
18 spontaneous production). Another result that characterizes adult performance is the fact
19 that only adults produce pseudoclefts and wh-clefts in this condition, even though they
20 produce them at much lower rates than *é que* or standard clefts. This is in agreement
21 with the idea that clefts featuring a wh-clause may be less preferred. In this case,
22 avoidance of pseudoclefts and wh-clefts would affect both children and adults, even
23 though to different extents, a fact compatible with the idea that clefts involving a wh-
24 element carry extra processing load.
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40 The following table presents the responses obtained in the direct object condition.
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	<i>é que</i> O	Standard O	<i>é que</i> SU	Standard SU	Ambiguous (null subject)	Be Cleft	BE fragment	XP fragment	Simple sentence	Other
3-year-olds	0 (N=0)	0 (N=0)	1% (SD 0.04) (N=2)	1% (SD 0.03) (N=1)	0 (N=0)	0 (N=0)	0 (N=0)	58% (SD 0.36) (N=81)	34% (SD 0.34) (N=48)	6% (SD 0.08) (N=8)
4-year-olds	0 (N=0)	2% (SD 0.07) (N=3)	0 (N=0)	0 (N=0)	2% (SD 0.07) (N=3)	0 (N=0)	27% (SD 0.33) (N=54)	45% (SD 0.35) (N=89)	23% (SD 0.28) (N=46)	3% (SD 0.04) (N=5)
5-year-olds	0 (N=0)	0 (N=0)	2% (SD 0.05) (N=3)	0 (N=0)	0 (N=0)	0 (N=0)	5% (SD 0.12) (N=8)	30% (SD 0.32) (N=51)	63% (SD 0.39) (N=107)	<1% (SD 0.02) (N=1)
Adults	0 (N=0)	0 (N=0)	<1% (SD 0.02) (N=1)	<1% (SD 0.02) (N=1)	0 (N=0)	<1% (SD 0.02) (N=1)	0 (N=0)	<1% (SD 0.02) (N=1)	97% (SD 0.05) (N=214)	<1% (SD 0.03) (N=2)

Table 10. Results in the direct object condition.

The comparison between the responses obtained in this condition and in the subject condition shows a clear asymmetry: in the object condition, neither children nor adults produce object clefts, with the exception of three object standard clefts produced by the same 4-year-old boy and one *be*-cleft produced by an adult. The same 4-year-old who produces standard clefts also produces three ambiguous clefts such as (41): in this case, the sentence may either be an object cleft with a null subject in the embedded CP or a subject cleft with a null object.²²

²² In other studies (Costa, Lobo & Silva, 2011), children have also resorted to ambiguous sentences, producing relative clauses with a null argument, which may be interpreted either as subject relatives with a null object or as object relatives with a null subject. Adults never produced these ambiguous sentences.

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3 (41) É o menino que está a pentear.
4
5 is the boy that is PREP comb
6
7
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9
10 In the object condition, children also occasionally produce unexpected active subject
11 clefts (e.g. 42) – an adult uses a subject cleft once but producing a passive subject cleft,
12 which is therefore congruent with the context²³.
13
14

15
16 (42) Experimenter / frog: O menino está a pintar a mãe.
17

18 ‘The boy is painting his mother.’
19

20 Child: a. O menino é que (es)tá a pintar o bebé.
21
22 the boy is that is PREP paint the baby
23

24 ‘It is the boy that is painting the baby.’
25

26
27 b. Não, é o menino que (es)tá a pintar o
28
29 No is the boy that is PREP paint the
30
31 bebé.
32
33 baby
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37

38 The other main relevant result in the object condition concerns the fact that the
39 frequency of be-fragments in this condition is overall lower than in the subject
40 condition. First, only 4 and 5-year-olds produce be-fragments in this condition and, in
41 the case of 5-year-olds, the production is scarce (the rates of be-fragments in the two
42 groups are significantly different in the expected direction, Mann-Whitney $U= 99.000$, p
43 = 0.03). 5-year-olds seem to approach the adult behavior: 5-year-olds and, to a greater
44 extent, adults prefer to produce simple sentences with post-verbal objects, a position in
45 which the object is arguably interpreted as focused by default and thus corresponds to
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56
57 ²³ The same phenomenon has been found in elicited production of relative clauses (Costa, Lobo & Silva,
58 2011): instead of object relatives, some adults produce subject relatives with passives.
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the target reading in this condition. Simple sentences, which allow maintaining structural parallelism with the sentence to be corrected, are not ambiguous, contrary to fragments. In the particular case of 4-year-olds, who still produce a relevant number of be-fragments in the object condition, the production of be-fragments in the object condition ($Mdn = 0.1$) is nevertheless significantly lower than in the subject condition ($Mdn = 0.65$), as shown by the results of a Related-Samples Wilcoxon Signed Rank Test ($T= 6, p < 0.001$).

The results of second responses do not change the general picture: we could only get an object cleft from a 5-year-old, following a repetition (structure 40a.). Adults produce only 6 object clefts as a second response, including standard clefts, basic pseudoclefts and be-clefts.

Table 11 presents the responses obtained in the indirect object condition.

	<i>é que</i> IO	Standard IO	Cleft 0that SU	<i>É</i> <i>que</i> SU	Standard _SU	<i>Be</i> cleft	BE fragment	XP fragment	Simple sentence	Other
3-year-olds	0 (N=0)	0 (N=0)	0 (N=0)	0 (N=0)	0 (N=0)	0 (N=0)	0 (N=0)	50% (SD 0.40) (N=28)	34% (SD 0.39) (N=19)	16% (SD 0.23) (N=9)
4-year-olds	0 (N=0)	3% (SD 0.11) (N=2)	0 (N=0)	0 (N=0)	0 (N=0)	0 (N=0)	24% (SD 0.32) (N=19)	58% (SD 0.37) (N=46)	13% (SD 0.25) (N=10)	4% (SD 0.12) (N=3)
5-year-olds	0 (N=0)	0 (N=0)	1% (SD 0.06) (N=1)	1% (SD 0.06) (N=1)	1% (SD 0.06) (N=1)	0 (N=0)	4% (SD 0.10) (N=3)	30% (SD 0.41) (N=20)	60% (SD 0.42) (N=40)	3% (SD 0.12) (N=2)

						2%			97%	1%
						(SD				
						0.07)	0	0	(SD 0.09)	(SD 0.05)
adults	0	0	0	0	0	(N=2)	(N=0)	(N=0)	(N=85)	(N=1)

Table 11 – Results in the indirect object condition.

The results in this condition mirror the results obtained in the object condition: indirect object clefts are not produced (except for 2 cases from the same child who produced the object standard cleft). The only other cleft structures obtained are *be*-clefts found only in the adult group and unexpected subject *é que* and standard clefts produced by 5-year-olds (see 43, a case in which the child clefts the subject although the indirect object is contrasted).

(43) Experimenter / frog: O pai está a abrir a porta ao gato.

‘Dad is opening the door to the cat.’

Child: Não. É o pai que (es)tá a abrir a porta
 no is the dad that is PREP open the door
 à mãe.
 to+the mummy

‘No. It is dad that is opening the door to mummy.’

Moreover, as in the object condition, *be*-fragments are only frequent among 4-year-olds and adults prefer to produce simple sentences with the indirect object in a post-verbal position.

As a second response, we could obtain a few cleft structures produced by adults (dative *wh*- cleft and *be*-clefts), but children did not use cleft structures.

Finally, the following table presents the responses obtained in the adjunct condition.

	<i>é que</i> ADJ	Standard AD	<i>é que</i> SU	Cleft 0that SU	Be cleft	BE fragment	XP fragment	Simple sentence	Other
3- year- olds	0 (N=0)	0 (N=0)	0 (N=0)	0 (N=0)	0 (N=0)	2% (SD 0.04) (N=3)	68% (SD 0.39) (N=95)	23% (SD 0.34) (N=32)	7% (SD 0.11) (N=10)
4- year- olds	0 (N=0)	2% (SD 0.07) (N=3)	0 (N=0)	0 (N=0)	0 (N=0)	23% (SD 0.34) (N=46)	59% (SD 0.35) (N=118)	14% (SD 0.24) (N=28)	3% (SD 0.06) (N=5)
5- year- olds	0 (N=0)	0 (N=0)	<1% (SD 0.02) (N=1)	<1% (SD 0.02) (N=1)	0 (N=0)	5% (SD 0.10) (N=9)	48% (SD 0.38) (N=80)	45% (SD 0.37) (N=77)	0 (N=0)
adults	0 (N=0)	0 (N=0)	0 (N=0)	0 (N=0)	<1% (SD 0.02) (N=1)	<1% (SD 0.03) (N=2)	3% (SD 0.09) (N=7)	93% (SD 0.10) (N=205)	2% (SD 0.04) (N=4)

Table 12 – Results in the adjunct condition.

Interestingly, responses in this condition are similar to what was obtained in the direct object and in the indirect object conditions: we did not obtain adjunct clefts, except for 3 adjunct standard clefts produced by the 4-year-old child producing standard clefts in the other conditions. Again, be-fragments are rare, except in the 4-year-old group. In the case of second responses, we obtained 6 standard adjunct clefts produced by adults and one standard adjunct cleft produced again by the same 4-year-old boy who produces standard clefts in the other conditions (see (44)).

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5 (44) É na cama que (es)tá a saltar.
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7 is in+the bed that is PREP jump
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9 'It is in the bed that (he) is jumping.'
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13 14 **7. Discussion and conclusions** 15

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18 The analysis of spontaneous production and of the results of the elicited
19 production task that were carried out provide interesting findings that may contribute to
20 a better understanding of cleft development in child production. Let us turn to the
21 research questions and predictions stated in section 4.
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27 Regarding the asymmetry between subject and object clefts, considering
28 possible intervention effects (Friedmann, Belletti & Rizzi, 2009, a.o.), we have
29 predicted subject clefts to be easier than object clefts. After comparing children's
30 spontaneous production and the input, we also found that subject clefts prevail over
31 structures used to cleft other constituents – 71% of clefts found in children's
32 spontaneous production are subject clefts; 64% of adults' *é que* and standard clefts, the
33 most frequent cleft types, are subject clefts. This strongly suggests that there is an
34 asymmetry between subjects / other constituents that certainly recalls the well-known
35 subject-object asymmetries described in the literature. If intervention is somehow
36 responsible for this asymmetry, our data show that there is no difference between
37 complements and adjuncts in this respect, since there is no difference in frequency
38 between object clefts and adjunct clefts. The fact that the same asymmetry is found in
39 adult production is also in agreement with what was found in previous studies on
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3 structures involving wh-movement (see Costa, Lobo & Silva 2011 and references
4
5 therein).
6

7 The elicited production task did not force only the production of a cleft, it forced
8
9 the interpretation of the context as a context for contrastive focus, which can be
10
11 expressed with different structures. We should thus compare the chosen structures in
12
13 different conditions. In this task we have confirmed a clear asymmetry between the
14
15 responses obtained in the subject condition and the responses obtained in all other
16
17 conditions: children and adults hardly ever produce clefts in conditions other than the
18
19 subject condition. Similar asymmetries have been found in the elicitation of relative
20
21 clauses. However, in a context that elicits contrastive focus, we expect the asymmetries
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23 to be higher, as stated in the predictions of our study. Indeed, children and adults
24
25 preferred to resort to other structures than clefts when put in situations in which they
26
27 needed to contrast objects or adjuncts.
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32 If we compare the answers of the control group with children's responses, we
33
34 find some interesting results. In the non-subject conditions, adults mainly answer with
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36 simple clauses that display a prosodically focused constituent. This is an expected
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38 result, since in European Portuguese the object in post-verbal position receives the
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40 default focus of the sentence (Cinque, 1993). So, adults clearly choose to highlight the
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42 object and other postverbal constituents using prosodic strategies²⁴. Adults also produce
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44 XP fragments and be-fragments but their rate is very low. In fact, XP fragments and be-
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46 fragments probably maintain higher ambiguity and we hypothesize that this is the
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48 reason why they are not the preferred option (as will be discussed below).
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52 When we compare the control group to children, we see that a major difference
53
54 concerns fragments: 3-year-olds and 4-year-olds mainly produce fragments as an
55

56 ²⁴ Note that none of the answers given by adults presented a preposed focalized constituent, which
57 confirms the fact that there is no available focus position in the left periphery in EP (see Costa 1998,
58 Soares 2006). We are grateful to Adriana Belletti for raising this point.
59
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3 answer. However, the distribution of the two types of fragment answers is not random:
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5 3-year-old children basically produce fragment XP answers; 4-year-olds produce be-
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7 fragments as an answer at a much higher rate²⁵. Additionally, there is a clear contrast
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9 between the subject condition and the other conditions as for the rate of be-fragments: in
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11 the subject condition, both the 3-year-old group and the 4-year-old group produce be-
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13 fragments, whereas in the other conditions the rate of production of be-fragments by 3-
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15 year-olds is close to 0 and the rate of production by 4-year-olds is lower than in the
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17 subject condition. This asymmetry mirrors the asymmetry found in clefts and is by itself
18
19 an argument for the analysis of be-fragments as reduced clefts. On the other hand, if be-
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21 fragments are reduced standard clefts, the fact that they occur in the object and adjunct
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23 conditions, even if at lower rates, may additionally suggest that the production of a
24
25 (partially) elided structure is easier for an immature processing system than the
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27 production of its overt counterpart (a full standard cleft) (see Santos, 2009a,b). Our data
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29 may indeed provide an additional argument in favour of an analysis of be-fragments as a
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31 partially elided cleft (Matos 1992, Soares 2006, Santos 2009b): note that it is precisely
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33 at 4 that children start producing entire standard clefts as a paraphrase, in second
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35 answers.
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41 Now, if 4-year-old children tend to be more able to produce be-fragments, how
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43 can we explain the decrease of be-fragments responses to a low rate, in the 5-year-old
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45 group? In fact, it is relevant to note that the decrease of be-fragments goes along with
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47 the increase of simple sentences. Looking at the results in the different conditions, 5-
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49 year-olds behave more like adults in producing more simple sentences with a
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51 prosodically focused constituent than younger children. But the distribution of the
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53 responses given by the 5-year-old group and the one found for the control group is
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57 ²⁵ Soares (2006) shows that, in spontaneous production, XP fragment answers emerge at 1;02,00, before
58 be-fragment answers, whose first occurrences are attested at 2;00,26.
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3 nonetheless different, because 5-year-old children still produce XP fragments, contrary
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5 to adults, who prefer, as we mentioned above, simple sentences. These simple sentences
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7 are typically cases in which the contrasted material is prosodically more salient than in
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9 sentences where there is not a contrasted constituent. In fragments, the contrastively
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11 focused constituent is spelled-out, whereas given material is deleted, and in this case the
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13 simple fact that the focused constituent is spelled-out makes it more salient²⁶. Again, it
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15 seems that deleting the non-contrasted (and given) material is preferred in initial stages
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17 than applying stress shift/strengthening (in the terms of Reinhart, 2006).
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21 Although stress shift on the subject is also possible in EP, it is much more
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23 unnatural than stress on post-verbal constituents. This certainly contributes to explain
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25 the fact that half of the answers given by adults in the subject condition are clefts.
26
27 Among the clefts, adults prefer *é que* clefts, even though they also produce standard
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29 clefts.
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33 The second type of results that we should discuss here concerns the relative
34
35 frequency of the different cleft types. Both in spontaneous and in elicited production
36
37 data, we found a clear asymmetry between *é que* and standard clefts, on the one hand,
38
39 and other clefts, on the other. Be-clefts and cleft structures involving a wh-constituent
40
41 are rare in spontaneous or elicited production. This suggests that clefts do not share the
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43 same syntactic derivation. Remember that we are assuming, with Lobo (2006) and
44
45 Soares (2006), that standard clefts and *é que* clefts, contrary to clefts featuring a wh-
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47 clause, do not entail a small clause structure.
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51 As for the asymmetry between wh- clefts and pseudoclefts vs. standard and *é*
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53 *que* clefts, the data is in agreement with the hypothesis that clefts involving wh-
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55 elements are more difficult for children because they require the establishment of an

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57 ²⁶ Ellipsis is seen here as a case of extreme deaccenting (see Reinhart's (2006) view of ellipsis as
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59 anaphoric destressing and Merchant's (2001) view of ellipsis as extreme givenness). See Santos (2009b)
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for discussion of ellipsis in fragment answers in European Portuguese.

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3 anaphoric relation between the clefted constituent and the wh-constituent, which
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5 determines the constituent interpreted as focused in the clause. As mentioned above,
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7 different kinds of anaphoric dependencies have shown to be slow to develop.
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10 As for standard clefts vs. *é que* clefts, we concluded that there was no
11
12 statistically significant difference between the order of emergence of *é que* clefts and of
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14 standard clefts. So, we could not conclude that standard clefts are more complex than *é*
15
16 *que* clefts and could thus not confirm the claims of Soares (2006).
17

18
19 The analysis of clefts both in child and in child directed speech has provided
20
21 arguments for a non-unified analysis of clefts in the adult syntax. It has confirmed
22
23 general asymmetries between subject and non-subject clefts, which match similar
24
25 asymmetries found in other structures involving A' dependencies. These asymmetries
26
27 are particularly amplified in the case of clefts, a fact which we attribute to the fact that
28
29 clefts convey focus readings and these may be obtained by projecting other syntactic
30
31 structures, often in combination with a particular prosody. These data have also
32
33 provided arguments for the analysis of be-fragments as partially elided clefts. Finally, it
34
35 has provided arguments suggesting that clefts involving wh-elements are more difficult
36
37 for children, possibly because they involve an unselected wh-clause and the
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39 establishment of an anaphoric relation between the focused constituent and the wh-
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41 constituent.
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49 **References**

50
51 Akmajian, Adrian. 1979. *Aspects of the grammar of focus in English*. New York:
52
53 Garland.
54
55
56
57
58
59
60

- 1
2
3 Ambar, Manuela. 1999. Aspects of the syntax of focus in Portuguese. In G. Rebuschi e
4
5 L. Tuller, *The grammar of focus*, 23-53. Amsterdam: John Benjamins.
6
7 Ambar, Manuela. 2005. Clefts and tense asymmetries. In Anna Maria di Sciullo (ed.),
8
9 *UG and External Systems. Language, brain and computation*, 95-127.
10
11 Amsterdam: John Benjamins.
12
13 Barbosa, P. 2013. As construções pseudoclivadas: perguntas e respostas. In Fátima
14
15 Silva, Isabel Falé and Isabel Pereira (orgs.) *Textos Seleccionados XXVIII Encontro*
16
17 *Nacional da APL*, 131-148. Coimbra: APL.
18
19
20 Belletti, Adriana. 2005. Answering with a “cleft”: the role of the null subject parameter
21
22 and the vP periphery. In L.Brugè, G.Giusti, N.Munaro, W.Schweikert, G.Turano
23
24 (eds.), *Proceedings of the Thirtieth 'Incontro di Grammatica Generativa'*, 63-82.
25
26 Cafoscarina: Venezia.
27
28
29 Belletti, Adriana. 2008. Answering strategies: new information subjects and the nature
30
31 of clefts.
32
33 http://www.ciscl.unisi.it/doc/doc_pub/Book.Answering%20strategies1.biblio.pdf
34
35 (10 April, 2013)
36
37
38 Bošković, Zeljko. 1997. Pseudoclefts. *Studia Linguistica* 51. 235-77.
39
40 Buring, Daniel 2007. Semantics, intonation and information structure. In G. Ramchand
41
42 & C. Reiss (eds.), *The Oxford Handbook of Linguistic Interfaces*. Oxford: OUP.
43
44
45 Casteleiro, João Malaca. 1979. Sintaxe e Semântica das Construções Enfáticas com “é
46
47 que”. *Boletim de Filologia*, XXV.
48
49
50 Cinque, Guillermo. 1993. A null theory of phrase and compound stress. *Linguistic*
51
52 *Inquiry* 24.2. 239-297.
53
54 Clahsen, Harald, Kursawe, Claudia & Penke, Martina 1996. Introducing CP : Wh-
55
56 questions and subordinate clauses in German child language. In C. Koster et F.
57
58
59
60

- 1
2
3 Wijnen (eds.), *Proceedings of the Groningen Assembly on Language Acquisition*
4 *held at the University of Groningen, 7-9 September 1995*. Groningen: Centre for
5 Language and Cognition.
6
7
8
9
10 Costa, J. 1998. Word Order Variation. A Constraint-based Approach. Ph.D.
11 Dissertation, HIL/Leiden University.
12
13
14 Costa, João & Maria Lobo. 2009. Estruturas clivadas: evidência dos dados do português
15 europeu não standard. In Dermeval da Hora (org.), *Anais – 6º Congresso*
16 *Internacional da Abralín*. João Pessoa: Ideia, vol. 2.
17
18
19
20
21 Costa, João & Inês Duarte. 2001. Minimizando a Estrutura: uma Análise Unificada das
22 Construções de Clivagem em Português. *Actas do XVI Encontro Nacional da*
23 *Associação Portuguesa de Linguística*, 627-638. Lisboa: APL/Colibri.
24
25
26
27
28 Costa, João, Nino Grillo & Maria Lobo (2012) Minimality beyond lexical restriction:
29 Processing and acquisition of headed and free *wh*-dependencies in European
30 Portuguese. *Revue Roumaine de Linguistique LVII, 2, 143-160*.
31
32
33
34 Costa, João, Maria Lobo & Carolina Silva (2011) Subject-object asymmetries in the
35 acquisition of Portuguese relative clauses : Adults vs. Children. *Lingua* 121, 1083-
36 1100.
37
38
39
40
41 Delage, Hélène, Cécile Montjauze, Cornelia Hamann & Laurie Tuller. 2008. Relative
42 Clauses in Atypical Acquisition of French. In A. Gavarró & M. J. Freitas (eds.),
43 *Language Acquisition and Development: Proceedings of GALA 2007*, 166-176.
44
45
46
47 Newcastle: Cambridge Scholars Publishing.
48
49
50 Dikken, Marcel den, André Meinunger & Chris Wilder. 2000. Pseudoclefts and ellipsis.
51 *Studia Linguistica* 54: 41-89.
52
53
54
55
56
57
58
59
60

- 1
2
3 Dikken, Marcel den. 2005. Specificational copular sentences and pseudoclefts. In H.
4 van Riemsdijk & M. Everaert (eds.), *The Blackwell companion to syntax*, Vol. IV.
5
6 Oxford: Blackwell.
7
8
9
10 Duarte, Inês, Ana Lúcia Santos & Nélia Alexandre. 2014. How relative are purpose
11 relatives? *Probus*. [DOI: 10.1515/probus-2014-0002, April 2014]
12
13
14 Freitas M.J. 1997. Aquisição da estrutura silábica do Português Europeu. Ph.D.
15
16 Dissertation, Universidade de Lisboa.
17
18
19 Friedmann, Naama, Adriana Belletti & Luigi Rizzi. 2009. Relativized relatives: Types
20 of intervention in the acquisition of A-bar dependencies. *Lingua* 119. 67-88.
21
22
23 Friedmann, Naama & Rama Novogrodsky. 2004. The acquisition of relative clause
24 comprehension in Hebrew: A study of SLI and normal language development.
25
26 *Journal of Child Language* 31. 661-681.
27
28
29
30 Grillo, Nino. 2005. Minimality effects in agrammatic comprehension. In Blaho, S.,
31 Schoorlemmer, E., Vicente, L. (eds.), *Proceedings of ConSOLE XIII*, 106–120.
32
33 <http://www.hum2.leidenuniv.nl/pdf/lucl/sole/console13/console13-grillo.pdf> (10
34
35 April 2013).
36
37
38
39 Grillo, Nino. 2008. *Generalized minimality: syntactic underspecification in Broca's*
40 *aphasia*. PhD dissertation. LOT, University of Utrecht.
41
42
43
44 Grinstead, John. 2004. Subjects and Interface Delay in Child Spanish and Catalan.
45
46 *Language*, 80(1), 40-72.
47
48
49 Grinstead, John, & Patti Spinner. 2009. The clausal left periphery in child Spanish and
50
51 German. *Probus*, 21(1), 51-82.
52
53
54 Grodzinsky, Yosef & Tanya Reinhart. 1993. The Innateness of Binding and
55
56 Coreference. *Linguistic Inquiry* 24(1), 69–101.
57
58
59
60

- 1
2
3 Grolla, Elaine. 2010. *Pronouns as Elsewhere Elements: Implications for Language*
4
5 *Acquisition*. Newcastle upon Tyne: Cambridge Scholars Publishing.
6
7 Guasti, Maria-Teresa & Luigi Rizzi. 1996. Null AUX and the acquisition of residual
8
9 V2. *BUCLD 20 Proceedings*, 284-295.
10
11 Guasti, Maria-Teresa & Anna Cardinaletti. 2003. Relative clause formation in Romance
12
13 child's production. *Probus* 15:47-89.
14
15
16 Hankamer, Jorge. 1974. On the non-cyclic nature of WH-clefting. *Proceedings of the*
17
18 *Tenth Regional Meeting of the Chicago Linguistic Society*. 221-233.
19
20
21 Heggie, Lorie. 1988. *The syntax of copular structures*. PhD dissertation. Univ. Southern
22
23 California.
24
25 Heycock, Caroline. 1994. The internal structure of small clauses. In J. Beckman (ed.),
26
27 *Proceedings of NELS 25*, Vol. One, 223-238, Amherst, Mass. GLSA.
28
29
30 Higgins, Francis Roger. 1979 *The pseudo-cleft construction in English*. New York:
31
32 Garland.
33
34 Hupet, Michel & Brigitte Tilmant. 1989. How to make young children produce cleft
35
36 sentences? *Journal of Child Language* 16. 251-261.
37
38
39 Jakubowicz, Celia. 2004. Is Movement Costly? The Grammar and the Processor in
40
41 Language Acquisition. Paper presented to *JEL '2004*, Nantes, France, 5-7 May.
42
43 Jakubowicz, Celia. 2005. The Language Faculty: (Ab)normal development and interface
44
45 constraints. Paper presented to GALA, Siena, 8-10 Sept.
46
47
48 Jakubowicz, Celia. 2011. Measuring derivational complexity: New evidence from
49
50 typically developing children and SLI learners of L1 French. *Lingua* 121: 339-
51
52 351.
53
54
55
56
57
58
59
60

- 1
2
3 Kato, Mary & Eduardo Paiva Raposo. 1996. European and brazilian word order:
4 questions, focus and topic constructions. In C. Parodi *et al.* (orgs.). *Aspects of*
5 *Romance Linguistics*, 267-277. Washington: Georgetown University Press.
6
7
8
9
10 Kiss, Katalin. É. 1998. Identificational Focus versus Information Focus. *Language* 74.
11 245–273.
12
13
14 Labelle, M. (1990) Predication, wh-movement and the development of relative clauses.
15 *Language Acquisition*. 1: 95-119.
16
17
18 Lempert, Henrietta & Marcel Kinsbourne. 1980. Preschool children's sentence
19 comprehension: strategies with respect to word order. *Journal of Child Language*
20 7.2. 371-379.
21
22
23
24
25 Lobo, Maria. 2006. Assimetrias em construções de clivagem do português: movimento
26 vs. geração na base. *XXI Encontro Nacional da Associação Portuguesa de*
27 *Linguística. Textos Seleccionados*, 457-473. Lisboa: APL/Colibri.
28
29
30
31
32 MacWhinney, Brian. 2000. *The CHILDES project: Tools for analyzing talk*. Mahwah,
33 NJ: Lawrence Erlbaum.
34
35
36
37 Matos, Gabriela. 1992. *Construções de elipse do predicado em Português. SV Nulo e*
38 *Despojamento*. Doctoral Dissertation. Universidade de Lisboa.
39
40
41 Merchant, Jason. 2001. *The Syntax of Silence. Sluicing, Islands and the Theory of*
42 *Ellipsis*. Oxford: OUP.
43
44
45
46
47 Mito, Carlos. 2012. Reduced Pseudoclefts in Caribbean Spanish and in Brazilian
48 Portuguese. In *Enjoy Linguistics! Papers offered to Luigi Rizzi on occasion of his*
49 *60th birthday*. CISCL, Siena.
50
51
52
53 Ott, Denis. 2011. A note on free relative clauses in the theory of phases. *Linguistic*
54 *Inquiry* 42.1. 183-192.
55
56
57
58
59
60

1
2
3 statistical computing. R Foundation for Statistical Computing, Vienna, Austria.

4
5 URL

6
7 Reinhart, T. 2004. The processing cost of reference-set computation: Acquisition of
8 stress shift and focus. *Language Acquisition* 12(2): 109–155.

9
10
11 Reinhart, Tanya. 2006. *Interface Strategies*. Cambridge MA: The MIT Press.

12
13 Rizzi, Luigi. 2000. Remarks on early null subjects. In M.-A. Friedemann & L. Rizzi
14 (eds.), *The Acquisition of Syntax*. London: Longman.

15
16
17
18 Rizzi, Luigi. 2005. On the Grammatical Basis of Language Development : A Case
19 Study. In G. Cinque, R. Kayne (eds.), *Handbook of Comparative Syntax*, 70-109.
20
21 Oxford, New York : Oxford University Press.

22
23
24
25 Rooth, M. 1992. A theory of focus interpretation. *Natural Language Semantics* 1: 75–
26
27 116.

28
29 Ross, John Robert. 1972. Act. In G. Harman & D. Davidson (eds.) *Semantics of Natural*
30
31 *Languages*, 70-126. Dordrecht: Reidel.

32
33
34 Santos, Ana Lúcia. 2004. On the status of fragment answers in the acquisition of
35
36 European Portuguese, *Second Lisbon Meeting on Language Acquisition*,
37
38 Universidade de Lisboa, Junho.

39
40 Santos, Ana Lúcia. 2006. *Minimal Answers. Ellipsis, syntax and discourse in the*
41
42 *acquisition of European Portuguese*. PhD dissertation. Univ. Lisboa.

43
44
45 Santos, Ana Lúcia. 2009a. *Minimal Answers. Ellipsis, syntax and discourse in the*
46
47 *acquisition of European Portuguese*. Amsterdam / Philadelphia: John Benjamins.

48
49 Santos, Ana Lúcia. 2009b. The problem of fragment answers. *Iberia* 1.1. 115-142.

50
51
52 Silva, Carolina. 2014. Interpretation of Clitic, Strong and Null Pronouns by Typically
53
54 Developing Portuguese Children. In João Costa, Alexandra Fiéis, Maria João
55
56 Freitas, Maria Lobo and Ana Lúcia Santos (eds.) *New Directions in the*
57
58
59
60

1
2
3 *Acquisition of Romance Languages. Selected Proceedings of The Romance Turn*
4
5 *V*, 302-325. Newcastle upon Tyne: Cambridge Scholars Publishing.
6

7 Soares, Carla. 2006. *La syntaxe de la périphérie gauche en portugais européen et son*
8 *acquisition*. PhD dissertation. Univ. Paris 8.
9

10
11 Snyder, William. 2007. *Child Language: The Parametric Approach*. Oxford: Oxford
12
13 University Press.
14

15
16 Szendroi, Kriszta. 2004. Acquisition evidence for an interface theory of focus. In J. van
17
18 Kampen and S. Baauw (eds.) *Proceedings of GALA 2003*, Volumes 1-2, 457 -
19
20 468. LOT: Utrecht.
21

22
23 Vercauteren, Aleksandra. 2010. *Como é que é com o é que? Análise de estruturas com é*
24
25 *que em variedades não standard do português europeu*. MA dissertation. FCSH-
26
27 UNL.
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Appendix

Condition	Stimulus
1a. Training item	Esta cadeira é cor-de-laranja. this chair is orange 'This chair is orange.'
1b. Training item	E a mesa é amarela. and the table is yellow 'And the table is yellow.'
2. Training item	(apontando para o pato) Este é um pato. this is a duck (pointing at the duck) 'This one is a duck.'
3. Training item	(apontando para o cão) Este aqui é o gato. this here is the cat (pointing at the dog) 'This one here is the cat.'
4. Adjunct	O menino está a saltar na mesa. the boy is PREP jump-INF on+the table 'The boy is jumping on the table.'
5. Subject	A mãe está a limpar a mesa. the mother is PREP clean-INF the table 'The mother is cleaning the table.'
6. Control	A mãe está a pentear o bebé. the mother is PREP comb-INF the baby 'The mother is combing the baby's hair.'
7. Direct object	O cão está a morder o sapato. the dog is PREP bite-INF the shoe. 'The dog is biting the shoe.'
8. Dative	O menino está a mostrar o desenho ao gato. the boy is PREP show-INF the drawing to+the cat 'The boy is showing the drawing to the cat.'
9. Adjunct	O bebé está a tomar banho com o gato. the baby is PREP take-INF bath with the cat 'The baby is taking a bath with the cat.'
10. Direct object	A mãe está a lavar o gato. the mother is PREP bathe-INF the cat 'The mother is bathing the cat.'
11. Control	O menino está a molhar o gato. the boy is PREP wet-INF the cat 'The boy is wetting the cat.'
12. Subject	A menina está a molhar o cão. the girl is PREP wet-INF the dog 'The girl is wetting the dog.'
13. Direct object	A menina está a comer a maçã. the girl is PREP eat-INF the apple 'The girl is eating the apple.'
14. Adjunct	O bebé está a comer a banana na cadeira. the baby is PREP eat-INF the banana on+the chair 'The baby is eating the banana on the chair.'

15. Control	O bebé está a rir em cima da mesa. the baby is PREP laugh-INF on top of+the table 'The baby is laughing on the table.'
16. Subject	O cão está a morder o rato. the dog is PREP bite-INF the mouse 'The dog is biting the mouse.'
17. Subject	O avô está a comer o bolo. the grandfather is PREP eat-INF the cake 'The grandfather is eating the cake.'
18. Adjunct	A menina está a ver o livro com o pai. the girl is PREP look.at-INF the book with the father 'The girl is looking at the book with her father.'
19. Subject	O pai está a pentear a menina. the father is PREP comb-INF the girl 'The father is combing the girl's hair.'
20. Dative	O bebé está a dizer adeus ao cão. the baby is PREP say-INF goodbye to+the dog 'The baby is waving goodbye to the dog.'
21. Control	O menino está a chorar no aviãozinho. the boy is PREP cry-INF in+the little airplane 'The boy is crying in the little airplane.'
22. Adjunct	A menina está a brincar dentro de casa. the girl is PREP play-INF inside of+the house 'The girl is playing in the house.'
23. Direct object	O menino está a molhar o cão. the boy is PREP wet-INF the dog 'The boy is wetting the dog.'
24. Subject	A menina está a molhar a bicicleta. the girl is PREP wet-INF the bicycle 'The boy is wetting the bicycle.'
25. Control	O gato está a morder a bola. the cat is PREP bite-INF the ball 'The cat is biting the ball.'
26. Dative	O pai está a abrir a porta ao gato. the father is PREP open-INF the door to+the cat 'The father is opening the door to the cat.'
27. Direct object	A mãe está a lavar o camião. the mother is PREP wash-INF the truck 'The mother is washing the truck.'
28. Subject	A mãe está a pintar o bebé. the mother is PREP paint-INF the baby 'The mother is painting the baby.'
29. Direct object	O menino está a pintar a mãe. the boy is PREP paint-INF the mother 'The boy is painting the mother.'
30. Control	O menino está a molhar as flores com a mangueira. the boy is PREP wet-INF the flowers with the hose 'The boy is watering the flowers with the hose.'
31. Adjunct	O menino está a chorar no escorrega. the boy is PREP cry-INF on+the slide

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	'The boy is crying on the slide.'
32. Dative	A menina está a dar a bola ao cão. the girl is PREP give-INF the ball to+the dog 'The girl is giving the ball to the dog.'
33. Direct object	O cão está a morder o pato. the dog is PREP bite-INF the duck 'The dog is biting the duck.'
34. Control	A mãe está a lavar a bola. the mother is PREP wash-INF the ball 'The mother is washing the ball.'
35. Direct object	O pai está a pintar a janela. the father is PREP paint-INF the window 'The father is painting the window.'
36. Adjunct	O menino está a pintar a parede com um pincel. the boy is PREP paint-INF the wall with a brush 'The boy is painting the wall with a brush.'
37. Control	O menino está a pintar o bebé. the boy is PREP paint-INF the baby 'The boy is painting the baby.'
38. Subject	O menino está a pintar a porta. the boy is PREP paint-INF the door 'The boy is painting the door.'
39. Direct object	O menino está a molhar a árvore. the boy is PREP wet-INF the tree 'The boy is wetting the tree.'
40. Subject	O cão está a morder a bola. the dog is PREP bite-INF the ball 'The dog is biting the ball.'
41. Control	O cão está a morder a bola. the dog is PREP bite-INF the ball 'The dog is biting the ball.'
42. Adjunct	O bebé está a rir na cadeira. the baby is PREP laugh-INF on+the chair 'The baby is laughing on the chair.'
43. Subject	O pai está a lavar o bebé. the father is PREP bathe-INF the baby 'The father is bathing the baby.'
44. Direct object	A mãe está a pentear a menina. the mother is PREP comb-INF the girl 'The mother is combing the girl's hair.'
45. Control	O pai está a limpar a mesa. the father is PREP clean-INF the table 'The father is cleaning the table.'
46. Adjunct	O bebé está a comer o arroz com o garfo. the baby is PREP eat-INF the rice with the fork 'The baby is eating rice with the fork.'
47. Adjunct	O bebé está a dormir com a boneca. the baby is PREP sleep-INF with the doll 'The baby is sleeping with the doll.'

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