

HOW EARLY AFTER ALL? INFLECTED INFINITIVES IN EUROPEAN AND BRAZILIAN PORTUGUESE L1 PRODUCTION¹

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1. Introduction

Inflected infinitives are known to be a property of Portuguese that exhibits some variation across dialects: whereas inflected infinitives are part of the colloquial dialects of European Portuguese (EP) (Raposo, 1987), they are arguably not part of the colloquial varieties of Brazilian Portuguese (BP), although they are maintained as part of the standard BP dialect (Pires, 2006).

Inflected infinitives are particularly interesting for morphological and syntactic reasons. From a strict morphological point of view, they bear unexpected person and number inflection morphology, overt in all cases but in 1sg and 3sg forms. From a syntactic point of view, they pattern with finite forms in licensing a nominative DP / *pro* subject (1a,b).

- (1) a. A Maria ficou em casa para irem ao teatro.
the M. stayed at home for go-**INF-3pl** to.the theatre

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- b. Apesar de os meus irmãos viverem longe,
 in-spite of the my brothers live-**INF-3pl** far,
 falo muito com eles.
 speak-pres-1sg a lot with them

However, inflected infinitives do not pattern with finite forms in their distribution: they are in general impossible in root clauses, generally possible in adjunct (1 a,b) and subject clauses and have a restricted distribution in complement clauses, where they are licensed in complements of declarative (2), epistemic and factive (3) verbs, but not of volition verbs.

- (2) O director afirmou [CP **concluírem** [TP os detectives
 the director stated **conclude-INF-3pl** the detectives
 a investigação em breve]].
 the investigation in soon
- (3) a. O director lamentou [CP **pararem** [TP os detectives a
 the director regretted **stop-INF-3pl** the detectives
 the
 investigação em breve]]
 investigation soon
- b. O director lamentou [CP os detectives [TP **pararem** a
 investigação em
 breve]].

Given that Inflected infinitives are only available in embedded clauses, it has been a matter of debate as to whether they are restricted to CPs (see e.g. the discussion in Raposo, 1987). In fact, there are reasons to believe that all inflected infinitive clauses are CPs, which may be licensed by (i) a prepositional complementizer, namely in the case of adjunct clauses (1a,b; see discussion in Duarte, Santos & Alexandre 2011); (ii) V-T movement to a C position, in the case of complements of declarative and epistemic verbs, in which the VS order is obligatory (2); and in the case of factive verbs, in which the VS order is optional (3a) (Raposo 1987); (iii) a subject in Spec, CP position, in the case of complements of factive verbs when the word order is SV (3b; see Duarte, Gonçalves & Miguel 2005, Duarte, Gonçalves & Santos 2011, in prep.).

The acquisition of inflected infinitives thus raises several questions concerning the developmental path in the acquisition of their morphological and syntactic properties, as well as more general questions related to acquisition theory, the role of input and, particularly, dialectal variation: since inflected infinitives have different statuses in the colloquial varieties of EP and BP, different acquisition paths are expected in these two varieties of Portuguese.

In previous experimental work on the acquisition of inflected infinitives in Brazilian Portuguese (BP) (Pires and Rothman 2009a,b, 2010) and European Portuguese (EP) (Pires, Rothman and Santos 2011), it has been argued that EP children show full adult competence of the properties of inflected infinitives by the age of 9 in general and some as early as age 6, whereas BP children only show such competence much later, around the age of 11. Both the EP and BP results, considered separately and comparatively, were interpreted as being consistent with Pires & Rothman's (2009a, 2010) claim that complete knowledge of inflected infinitive properties in BP could only emerge after BP children are fully immersed in social contexts (usually school) that provide sufficient input to standard BP.

If these experimental results did uncover different developmental paths in EP and BP, different predictions can be made concerning the availability of inflected infinitives in early production data of the two varieties (given the constraints imposed by the type of tasks used, only 6-year-olds and older were tested by Pires, Rothman & Santos (2011) in EP and by Pires and Rothman (2009a,b, 2010) in BP). We expect inflected infinitives to emerge and be productive in early child EP spontaneous speech, but not early child BP.

In Santos, Duarte, Pires & Rothman (2011), we analyzed the spontaneous production of three children (1;5-3;11) acquiring EP and showed that inflected infinitives do occur in early child speech, at the same time as a filled C position emerges in complement clauses (at 2;1 for two out of the three children). However, even though the analysis of the data showed that inflected infinitives occurred with expected morphology and in expected contexts in child early speech, it also showed that their distribution is restricted to adjunct clauses, namely *para* 'for' purpose clauses. Setting aside the facts concerning the distribution of inflected infinitives in child directed speech, which also bears on this discussion, we argued that

this happened because in *para* purpose clauses there is a prepositional complementizer (*para* ‘for’) directly merged in C, whereas in other uses of inflected infinitives, namely in complement and subject clauses, movement to the CP domain, e.g. V-to-(T-to)-C, is implicated. We therefore argued that the developmental pattern uncovered in the EP spontaneous data is in agreement with the Derivational Complexity Hypothesis (Jakubowicz 2005, Jakubowicz & Strik 2008): external merge (merge) is a less complex operation than internal merge (move) and is therefore expected to emerge earlier.

However, Santos, Duarte, Pires & Rothman (2011) do not entirely answer the question left open by the results in Pires, Rothman & Santos (2011): although we know that there is early acquisition of inflected infinitives in EP (limited in their distribution), we do not know whether the developmental path of EP actually differs from the developmental path of BP, as we would expect.

This paper aims at comparing our previous results on the analysis of spontaneous EP early child data with similar data from child BP. Given the results obtained in the previous experimental work on BP, we do not expect BP and EP children to show similar behavior at comparable ages. Late acquisition of inflected infinitives in BP would mirror (and be part of) the general process of loss of inflection in colloquial BP (e.g. Duarte 1995, Pires 2006, Roberts & Kato 1993). This loss of inflection has given rise, in colloquial BP, to personal infinitives, i.e. infinitives with an overt subject but absence of person-number inflection (4).

- (4) Ele disse para você e eu sair. (colloquial BP)
he said for you and I leave-**INF**.
‘He told you and me to leave.’

On the other hand, it has been argued that colloquial BP is losing V-to-C movement more generally (e.g. Roberts & Kato 1993, Pires 2006, Ambar, Negrão, Veloso & Graça 2009): if at least part of the inflected infinitive contexts requires V-to-C (a fact that may also justify their late acquisition in EP), this type of loss may also play a role in the general loss of inflected infinitives in BP.

2. The study

Method

In this study, we compare EP data presented in Santos, Duarte, Pires & Rothman (2011) with data from three children coming from two separate corpora:

Table 1. BP data

Participants	Age range	Number of sessions	Origin
Ana	2;4.11-2;10.29	9	Magalhães (2006)
Ana Clara (A.C.)	1;8-3;7	7	Ruth Lopes (n/d)
Gabriela (Gab)	1;10-3;6	6	Ruth Lopes (n/d)

All the infinitives in the corpora were coded. We coded as possible inflected infinitives only cases meeting criteria for the identification of inflected infinitives, namely: (i) presence of overt person-number inflection; (ii) presence of an overt (nominative) subject. The criterion in (i) is an exclusive criterion for inflected infinitives; the criterion in (ii) is the only possible criterion for identifying 1st and 3rd singular inflected infinitives, which in Portuguese do not bear overt inflection, but is also a common criterion to identify personal infinitives in BP (see example (4) in the preceding section).

Results

The BP children produced 39 infinitives with an overt subject in the corpus (starting at 2;3 for A.C. and Gab and 2;7 for Ana)²;

² This number would rise if the infinitive complements of causatives with an overt subject were taken into account here. However, these cases raise

however, only one case of overt (3pl) inflection is found in the data (A.C. at 3;7). The majority of infinitives with overt subject are cases in which no overt inflection is expected: 1sg, 3sg or the broadly used BP form *você* ‘you’, semantically a 2sg but morphologically 3sg. However, children do some attempts at producing other person / number cases, namely 1pl, 3pl, where inflection would be expected in the case of a true inflected infinitive. In these cases, except for the one case mentioned before, no inflection is produced by these BP children. Finally, a relevant result concerns the distribution of these infinitives: except for two cases, all infinitives with overt subjects occur in *para* ‘for’ purpose clauses.

If we compare our preceding results on EP with results now obtained on BP, we find important convergent and divergent results. On the one hand, it is true that the first infinitives with overt subjects in BP and EP emerge at comparable ages (the earliest at 2;1 for EP; 2;3 for BP) and in similar contexts, namely *para* purpose clauses. These cases include cases with nominative subject pronouns, as we have found in child EP (5-7, examples from the three children).

- | | | | | | | | | | |
|-----|--------|----------|---------|-----------------|----------------|-----------|-----------------|------------------|------|
| (5) | p(r)a | [: para] | eu | co(r)ta(r) | 0a | massinha. | Ana | | |
| | | | 2;10.29 | | | | | | |
| | for | | I.Nom | cut- INF | | the clay. | | | |
| (6) | pega | ela | p(r)a | eu | fazer. | A.C. | | | |
| | | | 3;0 | | | | | | |
| | take | her | for | I.Nom | do- INF | | | | |
| (7) | me | dá | a | boneca | pra | eu | poder | guardar. | Gab. |
| | | | 3;6 | | | | | | |
| | me.Dat | give | the | doll | for | I.Nom | can- INF | keep- INF | |

However, in child BP there is a general lack of evidence for morphological verbal agreement in expected contexts. That is, with plural grammatical persons, there is an absence of subject-verb agreement where expected in the case of a standard inflected infinitive. This results in production of clear personal infinitives in BP only, that is, infinitives with no overt inflection co-occurring with

additional questions concerning their interpretation and a necessarily longer discussion is saved for future work.

overt subjects, even in cases where inflection should be expected (8-9).

(8) pra nós tomar. A.C.
3;0
for **we.Nom** take-**INF** [∅ inflection]

(9) é pra tu chavear a minha +... Gab.
3;6
is for **you.sg.Nom** key (lock)-**INF** the mine [∅ inflection]

A general hypothesis presented in section 1 and built upon proposals in Pires & Rothman (2009a, 2010) and Pires, Rothman & Santos (2011) is that the different developmental paths in BP and EP would partially result from differences in their primary linguistic data. The analysis of child directed speech in the corpora confirms that personal infinitives are used in BP adult speech (10-11), a fact that by itself permits us to treat the child forms in (8) and (9) as convergent with the target grammar.

(10) pega o vermelho pra nós botar.
take the read for **we** put-**INF**
(11) vê se tu acha uma colher pra eu poder fazer
o bolo.
see if you find a spoon for I can-**INF** do
the cake

Nevertheless, inflected infinitives, although limited, are also found in adult BP (12), something expected if they correspond to a property of standard BP and if some families are speakers of the standard variety or switch between their colloquial dialect and standard BP (this might indeed explain the production of one inflected infinitive at 3;7 by A.C).

(12) p(a)ra eles dormirem, né [: não é] ?
for **they** sleep-**INF-3pl** isn't it

3. Discussion

The general results of this exploratory study are in agreement with the predictions of the analyses of Pires & Rothman (2009a, 2010) and Pires, Rothman & Santos (2011): inflected infinitives in BP and EP show different developmental paths which seemingly relate directly to major differences in the colloquial dialects of BP and EP, those to which the child is arguably first exposed .

Whereas inflection in EP emerges before 2;6 with the first attempts to produce inflected infinitival forms other than 1sg and 3sg (only one error was found), in BP inflection is generally absent, even when expected. We could explain this early BP data by assuming that the child is avoiding inflection contrasts at this stage and possibly continues to do so until much later in a language (BP) that is losing part of these inflectional contrasts (but see Pires & Rothman 2009a:147 and refs therein for evidence that BP acquire inflection productively by the age of 3). But the absence of overt inflection in the infinitival forms in such cases gains a different interpretation in light of the fact that child directed speech in the same files presents several cases of clear personal infinitives, a fact in agreement with the hypothesis that there has been a reanalysis of inflected infinitives in colloquial BP as personal infinitives. In the case of personal infinitives, an overt subject DP can occur without overt inflection on the infinitive, and has its Case valued by non-overt phi-features on the infinitive (see Pires 2002, 2006 for details). This means that infinitives with overt subjects that could only be taken as deviant forms in EP are, in fact, target-like in BP.

However, it is also relevant that the analysis of the early acquisition of *para* ‘for’ purpose clauses in EP can also extend to these personal infinitive cases. Although personal infinitives are not restricted to *para* ‘for’ purpose clauses in adult colloquial BP, it is possible that their early occurrence primarily in these structures can also be taken to result from an analysis that involves external Merge of a lexical complementizer (*para* ‘for’, as in the case of early inflected infinitives of EP).

Finally, the fact that inflected infinitives also occur in a limited way in adult BP speech is in agreement with the idea that inflected infinitives and personal infinitives are possible in different varieties of BP (standard and colloquial) and may co-exist in different rates in

the primary linguistic data the child is exposed to in different families. The only case of an infinitive with inflection produced by A.C. at 3;7 is an argument for this co-existence as are the very few outliers in Pires and Rothman (2009a,b, 2010) who showed markedly earlier acquisition of inflected infinitives as compared to the vast majority of the tested BP children.

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