

Contraction and Duplication of Prepositions in Coordinated Structures in Brazilian Portuguese

Cristina Ximenes and Jairo Nunes

Massachusetts Institute of Technology and Universidade de São Paulo

1. Instances of Obligatory PP Coordination

Verbs that subcategorize for a PP in general allow both PP coordination and DP coordination involving the complement of the preposition, as exemplified in (1).¹

(1) a. John talked [_{andP} [_{PP} to the boy] and [_{PP} to the girl]]
b. John talked to [_{andP} [_{DP} the boy] and [_{DP} the girl]]

However, when the relevant preposition must undergo contraction with the determiner that follows it, we obtain a different pattern. As illustrated in (2)-(4), PP coordination is the only possibility in this circumstance.

(2) a. *Juan fue **a el** cine.
Spanish
Juan went **to the** movies

b. Juan fue **al** cine.
Juan went **to-the** movies

* Earlier versions of this paper were presented at the II Encuentro de Gramática Generativa, the 14th Colloquium on Generative Grammar, the 23rd West Coast Conference on Formal Linguistics, and at the following Universities: Estadual de Campinas, Florida International, Hamburg, Maryland, MIT, and Nantes. We are thankful to these audiences. Special thanks to Željko Bošković for his comments and suggestions. Thanks also to Pilar Barbosa, Laura Kornfeld, Ana Maria Martins, Telmo Móia, Eduardo Raposo, and Giorgio Magri, for their judgements. The first author was partially funded by CAPES (grant #1436-02-3) and the second author by CNPq (grant # 300897/96-2).

¹ This does not mean that the two structures necessarily mean the same. As discussed in Nunes 2001, 2004 and Hornstein and Nunes 2002, for instance, only coordination of PPs gives rise to a multiple event interpretation in Romance.

‘Juan went to the movies.’

- c. *Juan fue **al** cine **y el** teatro.
Juan went **to-the** movies and **the** theatre
- d. Juan fue **al** cine **y al** teatro.
Juan went **to-the** movies and **to-the** theatre
‘Juan went to the movies and to the theatre.’

(3) a. *Mi ricordo **di la** tua faccia. *Italian*
(I) remember **of the** your face

- b. Mi ricordo **della** tua faccia.
(I) remember **of-the** your face
‘I remember your face.’
- c. *Mi ricordo **della** tua faccia **e la** tua voce.
(I) remember **of-the** your face and **the** your voice
- d. Mi ricordo **della** tua faccia **e della** tua voce.
(I) remember **of-the** your face and **of-the** your voice
‘I remember your face and your voice.’

(4) a. *Eu votei **em o** Pedro.
Portuguese

I voted **in the** Pedro

- b. Eu votei **no** Pedro.
I voted **in-the** Pedro
‘I voted in Pedro.’
- c. *Eu votei **no** Pedro **e a** Ana.
I voted **in-the** Pedro and **the** Ana
- d. Eu votei **no** Pedro **e na** Ana.
I voted **in-the** Pedro and **in-the** Ana
‘I voted in Pedro and Ana.’

That the obligatoriness of PP coordination is contingent on contraction is independently shown by the Portuguese data in (5) below, for instance. (5a) shows that in the dialects that do not use definite determiners before names, the corresponding of (4c), for example, is perfectly acceptable with

a single preposition. In turn, (5b) and (5c) respectively show that if the relevant preposition or the relevant determiner (a numeral in the case of (5c)) does not allow contraction, coordination of DPs is also possible.

(5) a. Eu votei **em** Pedro e Ana.

Portuguese

I voted **in** Pedro and Ana
'I voted in Pedro and Ana.'

b. Eu falei **sobre a** música e **o** filme.

I spoke **about the** song and **the** movie
'I spoke about the song and the movie.'

c. Eu votei **em dois** homens e **duas** mulheres.

I voted **in two** men and **two** women
'I voted in two men and two women.'

At first sight, there is a straightforward account of the data in (2)-(4). The syntactic component could freely coordinate PPs or DPs depending on the number of prepositions available in the numeration. The unacceptability of (2c), (3c), and (4c) could then be attributed to a violation of the Parallelism Requirement on coordinated structures (see Chomsky 1995, Fox 2000 and Hornstein and Nunes 2002, among others), this time applying to morphological structures (see Ximenes 2002, 2004). For instance, suppose that if a given conjunct exhibits contraction in its border, all the other conjuncts should do the same. Under this scenario, once contraction is triggered in the first conjunct of (2c), (3c), and (4c), the second conjunct should also display contraction and this would only be possible if the derivation involved PP, rather than DP coordination. In other words, if the numeration of (4c), for instance, has only one instance of the contracting preposition *em*, the derivation may converge at LF, but will be ruled out in the morphological component.

In this paper, we argue that an approach along these lines cannot be the whole story despite its intuitive appeal. Based on data involving coordinated subjects of inflected infinitivals and small clauses in Brazilian Portuguese, we show that slightly different derivations can only converge if they access a numeration containing only one instance of the contracting preposition. We propose that in such cases, the morphological component actually copies the contracting preposition of the first conjunct and merges it in the second conjunct, yielding what can be described as sideward movement (see Nunes 2001, 2004) in the morphological component.

The discussion is organized as follows. In section 2, we point out some differences between European and Brazilian Portuguese with respect to inflected infinitivals that appear in the complement of a preposition. In

section 3, we discuss contraction involving a subcategorizing preposition and a coordinated subject of an inflected infinitival in Brazilian Portuguese. In section 4, we contrast contraction involving inflected infinitivals with contraction involving small clauses. Finally, section 5 concludes the paper.

2. Inflected Infinitivals: Some Differences between Brazilian and European Portuguese

Although both Brazilian and European Portuguese (*BP* and *EP*, respectively) permit inflected infinitivals, the two dialects contrast in two aspects that are relevant to our discussion. The first one is that the range of syntactic contexts where *BP* allows inflected infinitivals seems to be broader. In particular, some cases of inflected infinitivals in the complement position of a preposition are allowed in *BP*, but are not permitted or are rather marginal in *EP*, as illustrated in (6).

(6) a. Ninguém se lembrou **de a** Maria estar doente. (BP:
 \checkmark ; EP:*)
 nobody remembered **of the** Maria be sick

b. Ninguém se lembrou **da** Maria estar doente. (BP: \checkmark ;
 EP:*)
 nobody remembered **of-the** Maria be sick
 'Nobody remembered that Maria was sick.'

(7) a. Eu pensei **em o** Pedro fazer a tarefa. (BP:
 \checkmark ; EP:*)
 I thought **in the** Pedro do the work

b. Eu pensei **no** Pedro fazer a tarefa. (BP: \checkmark ; EP:*)
 I thought **in-the** Pedro do the work
 'I thought about Pedro doing the work'

The second difference is that in the contexts where both dialects allow an inflected infinitival, such as (8), for instance, contraction is the canonical form in *BP*, whereas speakers of *EP* reject it or accept it only marginally. In fact, *BP* speakers associate lack of contraction with a formal style, typical of written language. Even so, *BP* speakers all agree that lack of contraction is not an option when an infinitival clause is not involved; that is, all speakers detect a very strong contrast between (4a) and (7a), for instance.

(8) a. O fato **de a** Maria ter viajado é surpreendente. (BP:
 $\sqrt{; EP:\sqrt{}}$
 the fact **of the** Maria have traveled is surprising

b. O fato **da** Maria ter viajado é surpreendente. (BP: $\sqrt{; EP: ?/*}$
 the fact **of-the** Maria have traveled is surprising
 'The fact that Maria traveled is surprising.'

We may interpret these differences as stemming from the different categorial status inflected infinitivals may have in the two dialects. More precisely, we propose that inflected infinitivals in EP are uniformly realized as CPs, whereas BP came to allow inflected infinitivals to be (preferably) realized as IPs. Thus, the subject of the inflected infinitival in (8a), for instance, is not really adjacent to the subcategorizing preposition in EP, as illustrated in (9) below, for the null complementizer intervenes.² The marginal acceptability of contraction in (9) for some speakers is presumably due to later phonetic readjustment rules (see Vigário 2001).

(9) Spelled-out structure in EP: [[o fato **de** [_{CP} C **a** Maria ter viajado]] é surpreendente]

In BP, by contrast, the preposition and the infinitival subject in (8a) are indeed adjacent, as shown in (10) below, explaining why contraction is the canonical option. Once BP came to allow infinitival clauses to surface as IPs, economy of representations (see Bošković 1997) favored IPs over CPs, accounting for the conservative flavor of the non-contracted alternative.

(10) Spelled-out structure in BP: [[o fato **de** [_{IP} **a** Maria ter viajado]] é surpreendente]

The broader distribution of inflected infinitivals in BP can also be traced to this CP-to-IP reanalysis. Arguably, by having a more nominal character than CPs, infinitival TPs started to occupy positions that were previously exclusive to nominal projections, expanding their domain of occurrence. Accordingly, infinitival clauses may also be preceded by dummy Case-marking prepositions in BP in environments where this is precluded in EP, as exemplified in (11).

². See Bošković 1997, who argues that lack of *wanna*-contraction in (i) is due not to the intervention of traces, which are deleted copies (see Chomsky 1995, Nunes 2004), but to the intervention of the (Case-marking) empty complementizer.

(i) [who_i do you **want** [_{CP} t_i C [t_i **to** buy a car]]]

(11) [é difícil **de** [convencer o João]] (BP: (*de*); EP: (**de*))
 is hard **of** convince-*INF* the João
 'It's hard to convince João.'

Once these differences are pointed out, from now on we will focus on the Brazilian dialect since it exhibits a more complex paradigm. Given that BP speakers still distinguish lack of contraction involving infinitives and standard nominal complements, we will put issues of formality and conservativeness aside and assume that infinitival clauses in BP can be realized either as CPs or as IPs.³ In the next section, we start our discussion with some surprising data involving contraction and coordination in BP that came to be possible once inflected IP infinitival clauses became part of the grammar.

3. Contraction Involving Coordinated Subjects of Inflected Infinitivals in Brazilian Portuguese

3.1. The Paradigm

(12) and (13) illustrate the possibilities that arise in BP when a contracting preposition subcategorizes for an infinitival clause whose subject involves both coordination and contracting determiners:

- (12)a. Ele não aprovou a idéia **de o** João e **a** Maria viajarem.
 he not approved the idea **of the** João and **the** Maria travel-*INF*
- b. Ele não aprovou a idéia **do** João e **a** Maria viajarem.
 he not approved the idea **of-the** João and **the** Maria travel-*INF*
- c. Ele não aprovou a idéia **do** João e **da** Maria viajarem.
 he not approved the idea **of-the** João and **of-the** Maria travel-*INF*
- d. *Ele não aprovou a idéia **de o** João e **de a** Maria viajarem.
 he not approved the idea **of the** João and **of the** Maria travel-*INF*

³. To account for the optionality of contraction when infinitival clauses are involved, we assumed in early versions of this work (see Ximenes 2002, 2004 and Ximenes and Nunes 2004) that the null complementizer must be deleted and that such deletion was unordered with respect to morphological merger. If deletion applied before merger, contraction would be enforced; if merger applied before deletion, contraction would be blocked. We believe that our current interpretation of the facts provides a more natural account of the data in that it relies on independent properties that distinguish BP and EP with respect to inflected infinitivals.

‘He didn’t approve of João and Maria’s traveling.’

(13)a. Ela não pensou **em o** João e **a** Maria viajarem.
 she not thought **in the** João and **the** Maria travel-INF

b. Ela não pensou **no** João e **a** Maria viajarem.
 she not thought **in-the** João and **the** Maria travel-INF

c. Ela não pensou **no** João e **na** Maria viajarem.
 she not thought **in-the** João and **in-the** Maria travel-INF

d. *Ela não pensou **em o** João e **em a** Maria viajarem.
 she not thought **in the** João and **in the** Maria travel-INF
 ‘She didn’t think about João and Maria’s traveling.’

(12a) and (13a) exemplify the conservative alternative, with no contraction, and (12b) and (13b) the version with contraction. (12c) and (13c) are completely unexpected, for contraction takes place in both conjuncts, replicating the pattern that we observed for complements (cf. (2)-(4)). Finally, (12d) and (13d) show that the surprising PP coordination in (12c) and (13c) is only possible if contraction takes place in both conjuncts.

Below we provide an account for this complex pattern by examining it in light of the possibility that inflected infinitivals in BP may be CPs or IPs.

3.2.CP Infinitivals

Under a CP analysis of the infinitival clauses of (12a) and (13a), the relevant spelled-out structures are along the lines of (14).

(14)a. ... a idéia **de** [CP C [IP **o** João e a Maria viajarem]]
 b. ... pensou **em** [CP C [IP **o** João e a Maria viajarem]]

In (14), the empty complementizer intervenes between the subcategorizing preposition and the determiner of the first conjunct, blocking contraction in the morphological component (see fn. 2).

Under this analysis, the contraction seen in (12b) and (13b) can only be the result of some late phonetic readjustment rules, after morphological computations. Independent evidence for this approach to (12b) and (13b) is provided by the preposition *por* ‘by’, which under contraction is replaced by its allomorph *per*, as illustrated in (15) below. Given that contraction affecting *por* involves morphological information, the prediction is that it

should not yield structures analogous to (12b) and (13b) and this is indeed the case, as illustrated in (16).

(15)a. *Eu torço **por o** presidente.
I root **by the** president

b. Eu torço **pelo** presidente. *(por + o = pelo)*
I root **by-the** president
'I root for the president'

(16)a. Eu fiquei contente **por a** Maria e o João ganharem o prêmio.
I was happy **by the** Maria and the João win-INF the prize

b. *Eu fiquei contente **pela** Maria e o João ganharem o prêmio.
I was happy **by-the** Maria and the João win-INF the prize
'I was happy because João and Maria won the prize.'

The CP analysis also has a straightforward account of the unacceptability of (12d) and (13d), for there is no well-formed syntactic structure that can yield them. If the infinitival clause were the complement of the first instance of *em* in (13d), for instance, we would have an illicit coordination of a DP with a PP, as shown in (17a) below. On the other hand, if we had coordination of two PPs, as shown in (17b), the coordinated PPs would be incorrectly responsible for the external θ-role and the agreement properties of the verb. Hence, (12d) and (13d) are to be excluded for syntactic reasons.

(17)a. ... **em** [CP C [IP [and_{DP} [DP o João] e [PP em a Maria] ...
b. [CP C [IP [and_{PP} [PP em o João] e [PP em a Maria] ...

This account obviously cannot be extended to the acceptable instances in (12c) and (13c), which apparently should create problems similar to the ones sketched in (17). We will show in the next section that appearances are misleading in this case and that (12c) and (13c) are a by-product of the realization of infinitival clauses as IPs in BP.

3.3. IP Infinitivals

Before we discuss surprising cases of apparent PP coordination such as (12c) and (13c), let us first examine contraction in coordinated structures involving non-clausal complements in more detail. Take the paradigm in (4), repeated below in (18), for instance.

(18)a. *Eu votei **em o** Pedro.
 I voted **in the** Pedro

b. Eu votei **no** Pedro.
 I voted **in-the** Pedro
 'I voted in Pedro'

c. *Eu votei **no** Pedro e **a** Ana.
 I voted **in-the** Pedro and **the** Ana

d. Eu votei **no** Pedro e **na** Ana.
 I voted **in-the** Pedro and **in-the** Ana
 'I voted in Pedro and Ana.'

The contrast between (18a) and (18b) shows that part of the lexical specification underlying the preposition *em* and the determiner *o* should contain the information that they must contract under adjacency. Within the framework of Distributed Morphology (see Halle and Marantz 1993), we may interpret such contraction along the lines of (19) below. Given the spelled-out structure in (19a), P and D undergo morphological merger in (19b), followed by fusion in (19c), and Vocabulary Insertion then plugs in a single vocabulary item, namely, *no*, as shown in (19d).⁴

(19)a. Spelled-out structure: $[\text{PP } \mathbf{P} \text{ [andP [} \mathbf{D} \text{ N]]}]$
 b. Morphological merger: $[\text{PP [andP [} \mathbf{P+D} \text{ N]]}]$
 c. Fusion: $[\text{PP [andP [} \mathbf{P/D} \text{ N]]}]$
 d. Vocabulary insertion: $[\text{PP [andP [} \mathbf{no} \text{ N]]}]$

In turn, the contrast between (18c) and (18d) shows that, roughly speaking, if contraction happens in the boundary of the first conjunct, it must also happen in the other conjunct. In other words, the Parallelism Requirement on coordinated structures imposes restrictions not only on syntactic and semantic structures, but on morphological structures, as well.⁵ Given that fusion only affects sister nodes (see Halle and Marantz 1993), merger is a prerequisite for fusion in these cases of contraction. The question then is whether the Parallelism Requirement is a condition on morphological merger or fusion. The contrast in (20) below indicates that merger is what is at stake: an instance of the preposition *em* is required in

⁴. For purposes of exposition, we will henceforth make reference to words rather than sets of features.

⁵. See Ximenes 2002, 2004 on further examples and discussion of the effects of the Parallelism Requirement in the morphological component.

the second conjunct, despite the fact that it does not contract. We will return this issue below.

(20)a. Eu votei **no** Pedro e **em** duas outras pessoas.
 I voted **in-the** Pedro and **in** two other people

a. ?*Eu votei **no** Pedro e **duas** outras pessoas
 I voted **in-the** Pedro and **two** other people
 'I voted in Pedro and two other people'

To summarize, given two potential derivations D_1 , with a numeration containing a single instance of the preposition *em*, for instance, and D_2 , with a numeration containing two instances of *em*, only D_2 will converge in the morphological component if we have contraction between *em* and an adjacent element within a coordinated structure.

Let us now return to the unexpected instances of PP coordination involving infinitival clauses such as the ones in (21), for instance.

(21)a. Ele não aprovou a idéia **do** João e **da** Maria viajarem.
 he not approved the idea **of-the** João and **of-the** Maria travel-INF
 'He didn't approve of João and Maria's traveling.'

b. Ela não pensou **no** João e **na** Maria viajarem.
 she not thought **in-the** João and **in-the** Maria travel-INF
 'She didn't think about João and Maria traveling.'

c. Eu fiquei contente **pela** Maria e **pelo** João ganharem o prêmio.
 I was happy **by-the** Maria and **by-the** João win-INF the prize
 'I was happy because João and Maria won the prize.'

As discussed in section 3.2, the sentences in (21) should be ruled out in the syntactic component either because the infinitival subject involves a DP coordinated with a PP (cf. (17a)) or because the coordinated PPs cannot receive the external θ -role of the embedded predicate or trigger agreement (cf. (17b)). Furthermore, (21c) shows that the unexpected coordination must be licensed in the morphological component, since the preposition *por* resists contraction under late phonetic readjustment rules (cf. (16b)).

Let us then consider an alternative analysis. Take the derivation of (21b), for instance. Suppose that the structure spelled out by the syntactic component is the one in (22).

(22) ...[_{VP} pensou [_{PP} **em** [_{IP} [_{andP} [_{DP} **o** João] e [_{DP} a Maria]] viajarem]]]

Given that inflected infinitivals can be realized as IPs in BP, (22) is a well formed structure from a syntactic point of view: the matrix verb has its selectional requirements satisfied by the PP headed by *em* and the coordinated DPs can properly be assigned the external θ -role and trigger agreement with the verb *viajarem* 'travel-INF-3PL'.

Once *em* and *o* are adjacent in (22), they must undergo morphological merger as shown in (23).

(23) ...[_{VP} pensou [_{PP} [_{IP} [_{andP} [_{DP} **em+o** João] e [_{DP} a Maria]] viajarem]]

Given that such merger affects the boundary of a coordinated structure, the Parallelism Requirement then demands that the other conjunct also display merger. At first sight, there seems to be no way to satisfy this demand. However, one of the most typical morphological processes in grammar is reduplication, where a segment is copied from a given structure in order to fulfill some morphological requirement. If the inadequacy in (23) is morphological in nature, the system should in principle be allowed to use this morphological copy operation to remedy the problem.

We propose that this is exactly what happens. The morphological system copies the preposition *em* from the first conjunct of (23) and merges it with the determiner of the second conjunct, as shown in (24), yielding what looks like sideward movement (see Nunes 2001, 2004) in the morphological component.

(24)a. Copy and merger:

...[_{VP} pensou [_{PP} [_{IP} [_{andP} [_{DP} **emⁱ+o** João] e [_{DP} **emⁱ+a** Maria]] viajarem]]

b. Fusion:

...[_{VP} pensou [_{PP} [_{IP} [_{andP} [_{DP} **no** João] e [_{DP} **na** Maria]] viajarem]]

This mismatch between syntactic and morphological structures is thus what underlies the contrast between (21b) and (13d), repeated below in (25), for instance.

(25) *Ela não pensou **em o** João e **em a** Maria viajarem.
 She not thought in the João and in the Maria travel-INF
 'She didn't think about João and Maria's traveling.'

(21b) can be derived along the lines of (23)-(24), without yielding any syntactic violation, for only one preposition is available in the syntactic computations. By contrast, (25) has no licit derivation. If it starts with two instances of the preposition *em* in the numeration, it faces the syntactic problems summarized in (17). On the other hand, if it starts with a numeration containing a single instance of *em* and this preposition gets

duplicated in the morphological component along the lines of (24a), it still fails to satisfy the morphological requirements of the preposition and determiner, since they are adjacent but have not undergone fusion; in other words, this derivation should be excluded for the same reason (18a) is excluded.⁶

Recall that, based on (20) above, we have argued that what is relevant for the Parallelism Requirement is merger, rather than fusion. Sentences such as (21) also point to the same conclusion. Suppose for the sake of the argument that the Parallelism Requirement is sensitive to fusion in the boundary of a coordinate structure, rather than merger. Given the morphological structure in (23), after the preposition has already merged with the determiner of the first conjunct, fusion should apply yielding (26) below. Under the scenario entertained here, the Parallelism Requirement would then demand that fusion also take place in the second conjunct. The problem, however, is that not even morphological copying can salvage (26). Once fusion has applied in the first conjunct, the preposition, which could license a parallel fusion in the second conjunct, has been blended to the determiner and is no longer available for copying. Thus, we are forced to conclude that the relevant copying must take place before fusion, which is what we should expect if the Parallelism Requirement is actually tuned to merger in the boundary of a coordinate structure.

(26) ... [VP pensou [PP [IP [andP [DP **no** João] e [DP a Maria]] viajarem]]]

To sum up, once inflected infinitivals came to be reanalyzed as IPs in BP, their subjects became adjacent to a subcategorizing head, for there is no longer an intervening C. From the point of view of the morphological component, such subjects are then treated as complements of the subcategorizing head. This in turn may create asymmetries between syntactic and morphological structures when the subcategorizing head is a contracting preposition, for coordination of DPs in syntax will surface as coordination of PPs.

4.Independent Evidence: Contraction Involving Small Clauses

We argued above that the apparent cases of PP coordination in the subject position of an infinitival clause in BP are attributed to the possibility

⁶. If this reasoning is on the right track, it also has consequences for standard coordination of complements. (18d), for instance, could in principle be derived from a numeration containing two instances of *em* in the numeration, yielding PP coordination, or from a numeration containing only one instance of the preposition yielding DP coordination in syntax, but PP coordination in the morphological component, along the lines of (24). We leave an exploration of these possibilities for another occasion.

that inflected infinitivals in BP may be realized as IPs. Evidence for this proposal is provided by instances of contraction involving small clauses. Consider the contrast between (27) and (28), for instance.

- (27)a. Apesar **de o** meu pé estar quebrado, eu fui à festa.
despite **of-the** my foot be-INF broken, I went to-the party
- b. Apesar **do** meu pé estar quebrado, eu fui à festa.
despite **of-the** my foot be-INF broken, I went to-the party
'Despite my foot being broken, I went to the party.'

- (28)a. *Apesar **de o** meu pé quebrado, eu fui à festa.
despite **of the** my foot broken, I went to-the party
- b. Apesar **do** meu pé quebrado, eu fui à festa.
despite **of-the** my foot broken, I went to-the party
'Despite my broken foot, I went to the party.'

Given that inflected infinitivals can be realized as CPs or IPs in BP, (27a) can be derived from the spelled-out structure in (29a), where the intervening C blocks contraction between the preposition and the determiner. In turn, (27b) is to be associated with the spelled-out IP structure in (29b), where the preposition and the determiner are adjacent and must undergo contraction in the morphological component.⁷

- (29)a. Spelled-out structure: ... apesar **de** [CP C [IP [o meu pé] ...
- b. Spelled-out structure: ... apesar **de** [IP [o meu pé] ...

By contrast, under the standard assumption that small clauses do not contain a CP layer, the subject of a small clause should be adjacent to a subcategorizing head. In other words, both sentences in (28) are to be associated with the spelled-out structure in (30), where the preposition and the determiner are adjacent and contraction is obligatory. The contrast between (27a) and (28a) is therefore due to the extra CP layer potentially available for the infinitival clause.

- (30) Spelled-out structure: ... apesar **de** [sc [o meu pé] ...

The analysis developed thus far predicts that if the subject of structures analogous to (28b) involves coordination, we should again find apparent PP coordination. That this is exactly what we find, as illustrated in

⁷. (27b) could also be derived from the structure in (29a) with late phonetic readjustments, as discussed in section 3.2.

(31), provides independent support for the IP analysis of sentences such as (21).

(31)a. *Apesar **do** meu pé e **o** meu braço quebrados, eu fui à festa.
 despite **of-the** my foot and **the** my arm broken I went to-the party

a. Apesar **do** meu pé e **do** meu braço quebrados, eu fui à festa.
 despite **of-the** my foot and **of-the** my arm broken I went to-the party
 ‘Despite my broken foot and arm, I went to the party.’

5. Conclusion

Based on data on contraction between prepositions and determiners, this paper has argued that the Parallelism Requirement on coordinate structures also applies in the morphological component. More specifically, we have argued that if morphological merger applies to the boundary of a given conjunct, it must apply to all the other conjuncts. Interesting empirical evidence for this proposal comes from mismatches between syntactic and morphological structures, where coordinated DPs are realized in the morphological component as coordinated PPs, derived by instances of morphological sideward movement (a sequence of copy and merger in the morphological component) to satisfy the Parallelism Requirement.

References

Bošković, Željko. 1997. *The Syntax of Nonfinite Complementation: An Economy Approach*. MIT Press.

Chomsky, Noam. 1995. *The Minimalist Program*. MIT Press

Fox, Danny. 2000. *Economy and Semantic Interpretation*. MIT Press

Halle, Morris and Alec Marantz. 1993. Distributed Morphology and the Pieces of Inflection. In Hale, K. And S. J. Kayser (eds.) *The View from Building 20: Essays in honor of Sylvain Bromberger*. 111-176. Cambridge, Mass. MIT Press

Hornstein, Norbert and Jairo Nunes. 2002. On Asymmetries Between Parasitic Gaps and Across-the-Board Constructions. In *Syntax* 5.1:26-54

Nunes, Jairo. 2001. Sideward Movement. *Linguistic Inquiry* 32:303-344

Nunes, Jairo. 2004. *Linearization of Chains and Sideward Movement*. MIT Press.

Vigário, Marina. 2001. *The Prosodic Word in European Portuguese*. PhD Dissertation. Universidade de Lisboa

Ximenes, Cristina. 2002. *Contração de Preposição em Estruturas Coordenadas*. Ma. Thesis. Universidade Estadual de Campinas

Ximenes, Cristina. 2004. Preposition Contraction in Coordinated Structures in Brazilian Portuguese. In. *Romance, Op. 47: collected papers on Romance Syntax*. MIT Working Papers in Linguistics 47. MITWPL. pp. 179-194.

Ximenes, Cristina and Jairo Nunes. 2004. "Preposition Contraction in Coordinated Structures in Brazilian Portuguese". Paper presented at the 23rd West Coast Conference on Formal Linguistics, University of California at Davis, 23-25/4/04.