Portuguese under Minimalist Formal Lenses

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1. Introduction

Generative grammarians define grammar as a cognitive device (i.e., I(nternal)-language), taken to be part of the biological endowment of our species, with its development into a specific system, such as Portuguese, being determined by environmental factors (see Chapter 34 of the present volume).

In the Minimalist incarnation of the generative enterprise, I-language is defined as comprising a recursive structure-building mechanism that weaves together sound and meaning in an optimal fashion (Chomsky 1995, Hauser et al. 2002). This mechanism generates hierarchically organized structures, which are subsequently delivered to systems external to I-language, namely the systems of thought, also called the Conceptual-Intentional systems (C-I), and the Sensory-Motor systems (S-M), in charge of externalizing linguistic information using vocal-auditory channels (oral languages) or visual-spatial channels (sign languages). Thus, under this approach, efforts are put into understanding the interfaces between grammar and the relevant external systems. These interfaces are Logical Form (LF) - responsible for converting hierarchical structures into representations legible to C-I - and Phonological Form (PF), which maps hierarchical structures into strings of sounds or signs to be manipulated by S-M.

With this minimalist outlook in mind, this chapter discusses three syntactic phenomena of Portuguese relevant to the study of LF and PF, as well as to the interfaces between syntax and the other subcomponents of I-language: multiple determiner nominals, ellipsis and pragmatic markers. We will focus on Brazilian Portuguese (BP), but whenever possible, comparisons will be made with other Portuguese varieties.

Multiple determiner nominals, illustrated in example (1), is discussed in section 2. These nominals conform to the schema DP₁-of-DP₂, raising issues related to how the descriptive and expressive meaning conveyed by the modifier in N is structurally represented and interpreted at LF.¹

$(1) D_1$	A/N_1	$of-D_2$	N_2
O/esse/um	idiota/mala	d-o/esse/um	vizinho
the/this/a	idiot/suitcase	of-the/this/a	neighbor
'That/a idiot/a	nnoying (of a) neighbo	or'	

In section 3, we discuss elliptical structures. While BP nominal ellipsis (2a) is relevant to studies of PF, particularly to the formation of prosodic units, BP sluicing - sentential ellipsis (2b) - is relevant to LF, considering that minimalist proposals have concluded that elided information is recovered at LF under structural identity. BP

¹ Some of the examples of multiple determiner nominals, lack a good English translation. In these cases, our translations are just a good approximation of the original in Portuguese.

sluicing with preposition omission, like (2b), points towards the conclusion that there is no structural identity requirement.

(2) a Eu li o livro do Saramago e você leu o [-] da Lispector I read_{1-Sg} the book of-the Saramago and you read_{3-Sg} of-the Lispector 'I read Saramago's book and you read Lispector's book.' b O João dançou com alguém, mas eu não sei quem [-] the João danced_{3-Sg} with someone, but I not know_{1-Sg}. who 'João danced with someone, but I don't who.'

In section 3, we take on pragmatic markers, illustrated in (3) by the use of *de onde* as a metalinguistic marker of negation. This is an insufficiently studied phenomenon, but recent minimalist investigations of it have reached important theoretical conclusions about the representation and interpretation of metalinguistic information.

(3) A: Aquele aluno é inteligente
that student is intelligent
'That student is smart.'
B: De onde (que) aquele aluno é inteligente?
of where (that) that student is intelligent
'How come that student is smart!' (= That student is not smart!)

We conclude the chapter in section 4, briefly presenting other properties of BP syntax, which are equally pertinent to studies of the interfaces.

2. Multiple determiner nominal expressions

BP, similar to other Romance and Germanic languages, licenses constructions with multiple determiners of the type illustrated in (1) (henceforth, DP-of-DP).² Following the template [D₁ A/N₁ de D₂ N2], DP-of-DP are nominals in which A/N₁ stands for a (degree) modifier, adjectival or nominal in nature, while N₂ is a nominal constituent of some sort, which serves as the head of the construction.³ D₁ and D₂ can be both articles, definite (4a) or indefinite (4b), demonstratives (4c), or a combination of a demonstrative and a definite article (4d, 4e).

(4) a O mala d-o vizinho the annoying of-the neighbor 'That annoying neighbor.'b Uma bruta de uma chuva a brute of a rain 'A hell of a rain.'

² On parallel construction in other Romance and Germanic languages, see Español-Echevarría (1998), Matushansky (2002), Doetjes & Rooryck (2003), den Dikken (2006), Di Tullio & Saab (2006), Villalba (2008) and Alexiadou (2014), among others.

³ The fact that N₂ but not N₁ serves as the head of these DPs can be shown with anaphor binding and subject-verb agreement, as in (i), from Bastos-Gee (2013:46):

(i) O cachorro do Pedro; se; vingou d-a gente the dog of-the Pedro REFL took-revenge_{3-SG} of-the folks 'The idiot of Pedro took revenge on us.'

- c Esse / aquele chato d-esse / d-aquele cantor this / that annoying of-this / of-that singer 'This/that annoying singer.'
- d Esse / aquele idiota d-o prefeito this / that idiot of-the mayor
- e O idiota d-esse / d-aquele prefeito the idiot of-this / of-that mayor 'This/that idiot mayor.'

A general property of DP-of-DP constructions is that A/N_1 is semantically associated with N_2 via modification. Hence, it can iterate, creating recursive structures like (5) (Matushansky 2002; Bastos-Gee 2011, 2013).⁴ Also, since they are constituents (i.e., NPs/APs, rather than simple adjectives or nouns), they can host an evaluative modifier, such as *super* and *puta*, as in (6) (Hulk & Tellier 2000)⁵/6:

- (5) a O / esse merda d-o / d-esse burro d-o / d-esse imbecil d-o the / this shit of-the / of-this donkey of-the / of-this idiot of-the / d-esse deputado votou contra o projeto / of-this congressman voted against the project 'That stupid congressman voted against the project.'
 - b Ela comprou uma puta de uma super de uma casa she brought a whore of a super of a house 'She bought a hell of a great house.'
- (6) a O super gato d-o seu primo me ligou. the super cat of-the your cousin me called 'That very handsome cousin of yours called me.'
 - b Um puta grosso de um motorista me buscou pela manhã. a whore rude of a driver me picked-up by-the morning 'A hell of a rude driver picked me up this morning.'

DP₂ serves as the head of the whole structure, as evidenced by the anaphor binding tests in (7) (adapted from Bastos-Gee 2013:46). As shown in (7a), a canonical sentence with a possessive DP in subject position and a reflexive predicate, the anaphor se is bound by the whole possessive subject DP (o filho do João/do professor). Crucially, it is not bound by the possessor. By contrast, in (7b), in which the subject is a DP-of-DP, the anaphor can only be bound by the embedded DP (o João/o professor).

⁵ Bastos-Gee (2013:43-45) observes that, in general, degree modification is not possible with N₁, particularly in offensive nominal phrases. Certain evaluative degree modifiers, such as *super* and *puta*, however, can serve as degree modifiers for A/N₁, when A/N₁ is not a swear word or an offensive epithet, as illustrated in (3).

⁴ As Matushanky (2002:265) points out, iteration is a hallmark of modification; only modifiers can be iterated. In DP-of-DP constructions, A/N₁ can be iterated if the overall evaluation remains pragmatically consistent.

⁶ N₂ also has a phrasal status, since it can, in addition to being modified by degree adjectives, be modified by relatives. N₂ also allows possessive pronouns. However, N₂ cannot be pronominalized.

- (7) a. O filho_i do João_j / do professor_l se_{i/*j/*l} machucou na porta. the son of-the John / of-the professor himself hurt in-the-door 'The son of John's/of the teacher hurt himself in the door.'
 - b. O cachorro_i/merda_j do João_k/do professor $_1$ se* $_i$ /* $_j$ / $_k$ / $_1$ machucou the dog/shit of-the John/of-the teacher himself hurt na porta. in-the door

'The shameless/piece of shit John/teacher hurt himself in the door.'

With respect to the A/N₁ slot of this constructions, three types of modifiers are licensed (Bastos-Gee 2011, 2013; Foltran et al. 2016; Foltran & Nóbrega 2020): (i) epithets/swear words (e.g., *mala* lit. suitcase 'annoying'; *gato/a* lit. cat 'beautiful'; *merda* 'shit'; *porcaria* lit. garbage 'no-good'); (ii) evaluative modifiers (i.e., adjectives that positively evaluate a feature of N₂, selecting the positive extreme in an abstract evaluative scale; e.g., *puta* lit. whore 'great, big', *tremendo/a* 'tremendous', *super* 'super'); and (iii) attributive modifiers (i.e., adjectives ascribing a property to individuals, such as a quality, defect or physical attribute; e.g., *lindo/a* 'beautiful, handsome', *chato/a* 'boring').^{7/8} These three classes of modifiers, however, do not behave the same in these constructions.

Evaluative modifiers, such as *puta* and *mega*, for instance, ascribe a property to the capacity of doing something, but not to the individual described by N_2 , as discussed in Foltran et al. (2016), based on den Dikken's (2006) observations. This is exemplified in (8). Also, evaluative modifiers cannot be paraphrased as a copular sentence, as shown in (9b), and appear only to the left of the head noun N_2 in canonical DPs (9c).

- (8) Um puta / mega de um professor
 - a whore / great of a teacher
 - 'An amazing teacher.'
 - √A great teacher (in his or her capacity of being a teacher)
 - *An individual that is great, who happens to be a teacher.
- (9) a Puta festa whore party 'Hell of a party.'

b *A festa é puta the party is whore/great

c *Festa puta party whore/great

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⁷ Bastos-Gee (2011, 2013) also lists a set of abstract nouns that can occur in the A/N₁ position (e.g., *beleza* lit. beautiful-NOM, *gracinha* lit. grace-DIM, *lindeza* lit. beautiful-NOM, *maravilha* lit. wonder, *amorzinho* lit. love-DIM 'no-good, fool').

⁸ It is relevant to mention that not all attributive modifiers can occur in DP-of-DP constructions. Dimension, value, color and speed adjectives, for instance, cannot (e.g., *um grande/importante/rápido/branco de um porta-avião lit. a big/important/fast/white of a carrier-aircraft).

Epithets, swear words, and attributive modifiers, on the other hand, ascribe a property to the individual defined by N_2 (10)-(11), can be paraphrased by a copular sentence (12)-(13)⁹, and follow the head noun in canonical DPs (14)-(15):

(10) O cachorro/merda d-o meu primo (Epithet/Swear word) the dog/shit of-the my cousin

'that no-good/piece of shit of my cousin'

√A bastard that happens to be my cousin

*A terrible cousin (in his capacity of being a bastard).

(11) O grosso d-o jardineiro

(Attributive)

the rude/brute of-the gardener 'that rude/brute gardener'

[√]A rude/brute person that happens to be a gardener

*(?) A rude/brute gardener (in his or her capacity/way of being a gardener)

(12) a Um namorado galinha/merda

(Epithet/Swear word)

a boyfriend hen/shit

'A promiscuous/piece of shit of a boyfriend.'

b O meu namorado é um galinha/merda the my boyfriend is a hen/shit 'My boyfriend is (a) promiscuous/piece of shit.'

(13) a Um aluno chato

(Attributive)

a student annoing

'an annoying student'

b O meu aluno é um chato the my student is a annoying 'My student is annoying.'

(14) a Deputado burro/porcaria

(Epithet/Swear word)

congressman donkey/garbage

'stupid/no-good of a congressman.'

b *Burro/porcaria deputado donkey/garbage congressman

(15) a Motorista grosso

(Evaluative)

driver rude

'Rude driver.'

b *Grosso motorista

rude driver

In turn, epithets and swear words differ from evaluatives and attributives in not forcing overt instantiations of D_2 .

⁹ It has been argued that swear words are completely banned from occurring in attributive position, either in pre- or post-nominal positions, (Bastos-Gee 2011, 2013),. This is not entirely true. In a considerable amount of data available on the internet/his on Google, swear words are used in post-

nominal attributive position, as in (12a).

(16) a Um mala/merda de deputado (Epithet/Swear word)

a suitcase/shit of congressman

'A boring/piece of shit of a congressman.'

b *Uma puta de festa

(Evaluative)

a whore of party

c *Um lindo de motorista

(Attributive)

a beautiful of driver

Final observations about the properties of these modifiers concerns the expressive nature of epithets and swear words, which can be assigned two types of interpretations relating to their speaker-oriented nature (Gutzmann, 2019). They can either display a descriptive interpretation, contributing to the ordinary descriptive content of the DP, as in (10)-(14), or they can be assigned a semantically vacuous interpretation. Under the latter interpretation, the modifiers do not contribute to the descriptive content of the DP; rather, they convey a negative attitude of the speaker. In the latter case, epithets and swear words can either predicate over the entire DP (17a) or take as their semantic argument the entire sentence (17b). In addition, the expressive reading is only licensed if they occur in attributive position, as in (10). In (12) and (14), only a descriptive reading is possible.

(17) A Maria está namorando o cachorro/merda do Paulo.

the Mary is dating the dog/shit of-the Paulo

'Mary is dating that shameless/piece of shit of Paul.'

a. Interp. #1: The speaker feels negatively about Paul.

b. Interp. #2: The speaker feels negatively about the fact that Mary is dating Paul.

Now, with respect to the determiner component, only high determiners, such as (in)definite articles and demonstratives, but not low determiners (e.g., pouco 'few', muito 'many', vários 'several'), are licensed in this construction, presenting a discontinuous distribution in the structure $(D_1...D_2)$, with D_1 forcedly agreeing in strength with D_2 (see also Bastos-Gee 2013:49). For example, an indefinite feature in D_1 forces D_2 to be indefinite as well, as shown in (18). Notice that this indefiniteness agreement is independent of the type of modifiers placed in the A/N_1 slot.

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(18) a Um gato de um / *d-o / *d-aquele /*d-esse motorista a cat of a / of-the / of-that / of-this driver 'That handsome driver.'
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- b Uma super de um / *d-a / *d-aquela / *d-essa festa a super of a / of-the / of-that / of-this party 'That super party.'
- c Uma chata de uma / *d-a / *d-aquela / d-essa professora a flat of a / of-the / of-that / of-this teacher 'That annoying teacher.'

In addition, neither D_1 nor D_2 can be quantified:

(19) a *Todo / *alguns / *nenhum / um idiota de [*todo / *alguns / *nenhum / um All / some / none / an idiot of all / some / none / a mayor]

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prefeito]

'An idiot of a mayor.'

b *Toda/*alguma/*nenhuma/uma puta de [*toda/*alguma/*nenhuma all /some / none / a whore of all / some / none / uma casa]

/ a house]

'A hell of a house!'
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In sum, DP-of-DP constructions are complex recursive nominal structures commonly found in BP with challenging syntactic and semantic properties, with some arguably language-specific idiosyncrasies (e.g., the wide variety of nouns and adjectives serving as N₁; the variety of determiner types being duplicated). The multiple agreement patterns observed in these constructions —where the preferred distribution involves marking number only in the functional heads D₁ and D₂ (e.g., Uma-s puta de uma-s casa lit. a-PL whore/great of a-PL house 'a hell of a house'; similarly to what is observed in canonical DPs, Scherre 1988, 1994)—, as well as the grammatical status of the preposition de mediating the predicative relation, are still understudied aspects of these constructions that demand further investigation. The interpretation of these complex DPs is also a point of great interest. As observed in (17), DP-of-DP may convey a strong negative bias, as well as conveying the speaker's subjective view of the content expressed by the main assertion. This indicates that the speaker's perspective can be codified in specific configurations inside the DP and bear scope either over the whole DP or over the entire sentence, thus indicating an intrinsic syntax-pragmatic interface relating the internal structure of the DP and the superordinate/discursive structure of the clausal spine.

3. Ellipsis

Ellipsis is a grammatical phenomenon in which a missing constituent is interpreted as referring to an antecedent present in the surrounding discourse context. It is quite productive in BP, where constituents of different sizes and within different syntactic domains can be suppressed:

- (20) a Eu leio o poema da Cora e você lê o [-] da Prado I read_{1-SG} the poem of-the Cora and you read_{3-SG} the of-the Prado 'I read Cora's poem and you read Prado's one.'
 - b Você lê três poemas da Cora e eu leio só dois [-] you read_{3-SG} three poems of-the Cora and I read_{1-SG} only two 'You read three poems of Cora and I read just two.'
- (21) a Eu vou ler um poema da Cora e você também vai [-] I will_{1-SG} read_{INF} a poem of-the Cora and you also will_{3-SG} 'I will read a poem of Cora and you will too.'
 - b Eu comprei um livro para a Ana e você também comprou [-] I bought $_{1\text{-SG}}$ a book to the Ana and you also bought $_{3\text{-SG}}$ 'I bought a book for Ana e you did too.'
 - c Eu já li o poema, mas o romance ainda não [-] I already read_{1-SG} the poem but the romance yet not 'I already read the poem, but the romance I haven't read yet.'
- (22) a Ele viu alguém, mas eu não sei quem [-] he saw_{3-SG} someone but I not know_{1-SG} who

'He saw someone, but I don't know who.'

b A: Quem (que) ele viu?

who that he saw_{3-SG}

'Who did he see?'

B: A Cora Coralina [-]

the Cora Coralina

'Cora Coralina.'

The data in (20) illustrate elisions within nominal expressions, but in (20a) only the noun is omitted, while in (20b) the whole noun phrase is. (21) indicates that ellipsis can also target verbal predicates (VP ellipsis), where everything is silenced except for the auxiliary (21a), the verb (21b – verb-stranding VP ellipsis) or another subpart of the predicate, such as the verbal complement (21c – stripping). (22) exemplifies sluicing, ellipsis at the sentence level, where only constituents at the left periphery of the sentence survive elision, such as a *wh*-phrase (22a) or a topic (22b).

Although ellipsis within nominal expressions (20a) is pervasive in Romance languages (except in French), it is very restrictive when preceded by a definite determiner. First, the gap must be followed by some extra material, be it a prepositional phrase, a relative clause or an adjective. Yet not all prepositional phrases are licensed. In Spanish and European Portuguese (EP), for instance, only prepositional phrases headed *de* 'of' can occur in this context (Kester & Sleeman 2002; Clara 2008; Raposo 2018, among others). The first restriction applies in BP as well: a definite determiner cannot be followed by a bare elliptical noun, as shown in (23). The constraint on the type of preposition, however, seems less strict in BP. (24) (Clara 2018: 15) shows that in EP only the preposition *de* is allowed in the structural context under consideration. By contrast, the nominal elisions in (24) are all acceptable in BP, indicating that BP does not impose any a priori restriction on the type of preposition following an elliptical noun (Oliveira 2014).

- (23) Eu não aprovei os candidatos, mas *os / uns / alguns / todos [-] I not approved_{1-SG} the_{PL} candidates but the_{PL} / a_{PL} / some_{PL} / all_{PL} foram selecionados were selected_{PL} 'I didn't approve the candidates, but some of them/all of them were selected.'
- (24) a O livro do João e o [-] da Maria são diferentes the book of-the João and the of-the Maria are different_{PL} 'John's and Mary's book are different.'
 - b *O presente para o João e o [-] para Maria são diferentes the gift to the João and the to Maria are different_{PL}
 - c *A pessoa por trás de mim e a [-] por trás de ti the person for behind of me and the for behind of you são diferentes are diferent_{PL}
 - d *A casa em que vive teu irmão e a [-] em que vivem the house in that live_{3-SG} your brother and the in that live_{3-PL} teus pais your parents

The preposition constraint at issue might be related to the formation of prosodic domains at PF. In particular, it may be related to the integration of the definite determiner into a prosodic word (Oliveira 2014, Raposo 2018). If so, BP differs from other Romance languages in that it employs different strategies to map nominal expressions with a definite determiner and an elliptical noun into prosodic domains. This is still an open question and an answer to it depends on how syntactic structure is mapped into prosodic units. Raposo (2018) proposes, based on data from EP, that this mapping involves phasal domains. However, the BP data above suggest that this hypothesis is not quite right.

As for VP ellipsis, it is licensed in both EP and BP, but there are some relevant contrasts between these two languages, especially in verb-stranding VP ellipsis, where the verb is preceded by an auxiliary. According to Cyrino & Matos (2002), in regular cases of VP-ellipsis (25), the gap is canonically interpreted as a VP in both languages ((25a – BP), (25b – EP)). In cases of verb-stranding VP ellipsis like (26), however, a VP interpretation occurs only in BP (26a). In EP (26b), the gap is preferably interpreted as an indefinite null object.

- (25) a Ela está lendo livros para as crianças, mas ele não está [-] she is reading books to the_{PL} children but he not is
 - b Ela está a ler livros às crianças, mas ele não está [-] she is to read_{INF} books to-the_{PL} children but he not is 'She is reading books to the children, but he is not.'
- (26) a Ela está lendo livros para as crianças, mas ele não está lendo [-] she is reading books to the children but he not is reading 'She is reading books to the children, but he is not.'
 - b Ela está a ler livros às crianças, mas ele não está a ler [-] she is to read $_{\rm INF}$ books to-the $_{\rm PL}$ children but he not is to read $_{\rm INF}$ 'She is reading books to the children, but he is not reading anything.'

Another contrast pointed out by Cyrino & Matos is the position of *também* 'too', which is fixed in EP, but not in BP. In (27a – BP), *também* can occur either before or after the auxiliary, whereas in EP (27b) it must occur before the auxiliary.

(27) a Ela tem lido livros para as crianças, e ele (também) tem she has read $_{PART}$ books to the PL children and he too has (também) lido [-]

too read_{PART}

b Ela tem lido livros às crianças, e ele *(também) tem she has read_{PART} books to-the_{PL} children and he too has (*também) lido [-]

too read_{PART}

'She has read books to the children, and he has too.'

Based on these findings, Cyrino & Matos conclude that VP-ellipsis targets everything below Tense in EP, whereas in BP it targets a smaller constituent, the complement of an Aspect phrase located right above VP.¹⁰

¹⁰ For further discussion on the syntactic restrictions on this type of ellipsis in BP, see Panitz (2019).

Sluicing is a quite common type of ellipsis. It is widely found in Romance languages. However, sluicing does not behave as expected in BP. Merchant (2001) adduced evidence from 18 languages supporting the so-called PSG – P-Stranding generalization – which states that, in a Language L, preposition deletion occurs under sluicing only if L allows preposition stranding in regular wh-movement. This can be exemplified in English, a preposition-stranding language, and Greek, a non-preposition-stranding language:

- (28) a Who did Anna speak with?
 - b Anna spoke with someone, but I don't know with whom / who [-]
- (29) a *Pjon milise me? who spoke_{3-SG} with
 - b I Anna milise me kapjon, alla den ksero me pjon / *pjon [-] the Anna spoke_{3-SG} with someone but not know_{1-SG} with whom / whom 'Anna spoke with someone, but I don't know who.'

Unexpectedly, BP licenses preposition deletion under sluicing although it is not a preposition-stranding language (Almeida & Yoshida 2007, Rodrigues et al. 2009, Rodrigues 2016):

- (30) a *Quem a Ana falou com? who the Ana spoke_{3-SG} with
 - b A Ana falou com alguém, mas eu não sei (com) quem the Ana spoke_{3-SG} with someone but I not know_{1-SG} with who / quem [-] who
 - 'Ana spoke with someone, but I don't know who.'

This is not unique to BP. The same issue has been raised for other languages as well. Some speakers of peninsular Spanish, for example, judge the counterpart of (30b), without the preposition, as acceptable, although, for other speakers, it is at best marginal. Nevertheless, when the wh-phrase is discourse-linked (31), preposition deletion under sluicing is acceptable in general (Rodrigues et al. 2009, Vicente 2008, 2018). A similar observation is found in Matos & Catarino (2018), who report that sentences like (30b) without the preposition are accepted by young speakers of EP.

(31) Juan ha hablado con una chica, pero no sé cuál [-] Juan has spoken with a girl but not know_{1-SG} which 'Juan spoke with a girl, but I don't know which one.'

The phenomenon seems, however, more robust and widespread in BP, where preposition-deletion sluicing is readily acceptable by speakers of different dialects and ages, independent of the semantics of the wh-phrase. Importantly, these very same speakers disallow preposition stranding under regular wh-movement (Rodrigues & Milhorance 2019).

Almeida & Yoshida (2007) take the contrast in (30) as counterevidence to the PSG, pointing that (30b) is not a case of pseudosluicing (Merchant 1998), in which the elided constituent is a phonologically minimal cleft containing only an expletive subject followed a copular verb, as in (32). The authors argue that BP sluicing with

preposition deletion does not pattern with pseudosluicing, as it presents properties that are not observed in clefts, such as an intonational contour with the pitch accent falling on the wh-phrase, non-allowance of aggressively non-D-linked wh-phrases, compatibility with else-modification and modifiers with a mention-some interpretation.

(32) John danced with someone, but I don't know who [it was]

Rodrigues et al. (2009) and Rodrigues (2016) point out, however, that the structure underlying preposition-deletion sluicing might be a specificational cleft formed by a copular verb followed by determiner phrase containing a relative clause, as exemplified in (33) – which in BP might be a chopping relative; that is, a relative clause in which the preposition accompanying the wh-pronoun is dropped (Tarallo 1983, Kato & Nunes 2009).

(33) João dançou com uma menina, mas eu não sei quem João danced_{3-SG} with a girl but I not know_{1-SG} who [é a menina com quem / que o João dançou] is the girl with whom / that the João danced_{3-SG}

Different pieces of evidence have been presented in favor of the analysis in (33). Rodrigues et al. (2009), for instance, observe that preposition-deletion sluicing in BP may retain a complementizer, as in (34a), which the authors analyze as part of an underlying cleft (34b).

- (34) a Com certeza, ele falou com alguém, mas será quem que [-]? for sure he spoke_{3-SG} with someone but be_{FUT-3-SG} who that 'For sure he spoke with someone, but who?'
 - b [quem [que [é a pessoa com quem / que ele falou] who that is the person with whom / that he spoke_{3-SG}

Also, preposition deletion does not occur under predicate VP-ellipsis (Rodrigues et al. 2009, Rodrigues, 2016). For example, it is not allowed in stripping (35). This is explained by the fact that VP-ellipsis does not have an underlying cleft as its source.

(35) A Maria não deu o livro para o Pedro, mas *(para) você [-] the Maria not gave_{3-SG} the book to the Pedro, but to you 'Mary did not give the book to Peter, but to you.'

If this is descriptively correct, BP sluicing provides relevant evidence against structural identity under ellipsis. Minimalist analyses have argued that, under ellipsis, the recovery of information at LF requires the elided site to be structurally identical to its antecedent (Lasnik 2001, Merchant 2001, among others). Nevertheless, in the structure proposed for (33b), there is no structural identity between the elided TP, a specificational cleft, and its antecedent, a canonical sentence.

4. Pragmatic markers

Discourse markers are still an understudied phenomenon in the domain of Generative Grammar, although recent investigations have shown that they can be a window into

the understanding of the syntax-pragmatics interface. Building mostly upon Rodrigues & Lunguinho (2017, 2018, 2022), in this section, we focus on two discourse markers available in BP: (a) *de onde* 'of where', and (b) $v\hat{e}$ 'see'.

The examples in (36) exemplify canonical *de onde* wh-questions in BP. The wh-phrase can occur either at the beginning of the sentence (36a) or in situ (36b).¹¹ Also, in these questions (36a), a sentence initial *de onde* can be optionally followed by *que*, which has been analyzed as an interrogative particle (Hornstein et al. 2005).

(36) a De onde (que) o João está vindo? of where (that) the João is coming 'Where is João coming from?'
b O João está vindo de onde? the João is coming of where 'Where is João coming from?'

Interestingly sentences with *de onde* in initial position can also be uttered in conversational contexts in which no information is asked for, asserting rather a disagreement on the speaker's part with an assertion made by the interlocutor, as in (37). These are, thus, pragmatic questions used for showing disapproval, behaving, thus, as speaker-oriented evaluative expressions used to convey metalinguistic negation in the sense of Horn (1989).

(37) A: Não fechem a porta porque o João está vindo not close_{IMP-3-PL} the door because the João is coming 'Do not close the door, because João is coming'
B: De onde (que) o João está vindo? of where (that) the João is coming 'How come João is coming!' (= João is not coming.)

It should be noted that (36a) and (37b) have different intonations. Whereas (36b) has a falling intonation, (36a) does not. But pragmatic questions also differ from regular questions structurally. For instance, pragmatic questions disallow *in situ wh*-phrases. (38) cannot be interpreted as a pragmatic question.

(38) O João está vindo de onde? the João is coming of where √Regular question: 'Where is João coming from?' *Pragmatic question: '??How come João is coming!'

In addition, in pragmatic questions, *de onde* is not syntactically or semantically associated with the predicate. In B's comment in (39) and (40), there is no semantic association between *de onde* and the predicate. Thus, these examples do not involve movement of *de onde* to the beginning of the sentence. Rather, *de onde* is base generated in its surface position.

¹¹ Although (36a) and (36b) might not have the same semantics for some BP speakers. On this, see Pires & Taylor (2007).

- (39) A: Aquele aluno é inteligente that student is intelligent 'That student is smart.'
 - B: De onde (que) aquele aluno é inteligente? of where (that) that student is intelligent 'How come that student is smart!'
- (40) A: A mulher tirou as cadeiras da sala the women took_{3-SG} the chairs of-the room.'
 - B: De onde que a mulher tirou as cadeiras da sala? of where that the women took_{3-SG} the chairs of-the room 'How come the women took the chairs out of the room!

For some speakers, this metalinguistic negation forces the presence of the particle *que*. For these speakers, (41) is not grammatical. Thus, the contrast between (41) and (36) is evidence that the metalinguistic *de onde* does not exhibit the same syntactic behavior as does *de onde* in canonical wh-questions.

(41) B: *De onde a mulher tirou as cadeiras da sala? of where the women took_{3-SG} the chairs of-the room

This metalinguistic construction displays microvariation. Although all dialects of colloquial BP have de onde as a metalinguistic marker, there is variation regarding the preposition that accompanies onde. As shown in (42), besides de, the prepositions a and em are also licensed in some dialects. Onde can also be prepositionless.

(42) A: João não veio trabalhar porque ele está doente João not come_{3-SG} work_{INF} because he is sick 'João did not come to work because he is sick.'

B₁: De onde / aonde / na onde que o João está doente? of where / to-where / in-the where that the João is sick

B₂: Onde que João está doente? where that João is sick 'How come João is sick!'

The use of wh-words as metalinguistic negation markers is observed in EP, as well. Martins (2021) provides example (43), where the wh-word *qual* is used as a metalinguistic negation in EP.

(43) A: A União Europeia vai acabar the Union European will_{3-SG} end_{INF} 'The European Union will end.'

B: Qual a União Europeia vai acabar! which the Union European will_{3-SG} end_{INF} 'Like the hell the European Union will end.'

Assuming a cartographic syntax (Rizzi 1997), Martins proposes that structures containing metalinguistic negation markers are cross-linguistically derived via movement to the left periphery of the sentence. This does not seem quite right for BP,

where, as shown above, there is evidence that *de onde* is base generated in its surface position.

Let us now focus on a pragmatic marker of emphasis. In many languages, these markers developed from visual perception verbs (e.g., English *look*, French *regarde* and *vois-tu*, Spanish *mira* and *ves*, Italian *guarda*, and Romanian *uite* – Fagard 2010; Corr 2016). BP is included in this list. The marker $v\hat{e}$ is directly derived from the verb *ver* 'see' (Snichelotto 2002, 2009; Rodrigues & Lunguinho 2017), and as discussed in Rodrigues & Lunguinho, it is associated with two interpretations: emphatic order and the speaker's point of view.

The emphatic-order interpretation is exemplified in (44a), which conveys an order in an emphatic way. The contrast between (44a) and (44b) shows that imperative $v\hat{e}$ places a restriction on the type of complementizer it combines with. This restriction contrasts with regular affirmative uses of ver, in the indicative mood, which selects for clauses headed by the complementizer que, but not by se, as shown in (45).

- (44) a Vê se toma banho see_{2-SG} if take_{2-SG} shower 'Make sure you take a shower!' b *Vê que toma banho! see_{2-SG} that take_{2-SG} shower
- (45) a *Você vê se ele tomou banho!

 You see_{2-SG} if he took_{3-SG} shower

 b Você vê que ele tomou banho
 you see_{2-SG} that he took_{3-SG} shower

 'You see/notice that he took a shower.'

In this respect, emphatic $v\hat{e}$ patterns with the imperative $v\hat{e}$ form of ver, which also selects if-clauses.

(46) a Vê se ele tomou banho see_{IMP-2-SG} if he took_{3-SG} shower 'Check if he took a shower!' b *Vê que ele tomou banho see_{IMP-2-SG} that he took_{3-SG} shower

Nevertheless, emphatic $v\hat{e}$ does not equate syntactically and semantically with imperative $v\hat{e}$. Imperative ver in (46a) projects a sentential structure while taking an if-clause as its complement. In its turn, emphatic $v\hat{e}$ does not project a sentential structure, behaving rather as part of the if-clause it combines with. First, (46a) contains two full predicates, with two semantically independent external arguments. While the external argument of the predicate within the if-clause is a $3^{\rm rd}$ person pronoun, the external argument of the predicate headed by the imperative verb is a null $2^{\rm nd}$ person pronoun. In (45a), there is only one predicate, projected by the verb tomar. Emphatic $v\hat{e}$ is not a predicate; it has no external argument. Second, the content of the matrix sentence projected by the imperative verb in (46a) can be recovered contextually, in a conversation, as in (47). The same is not observed for (44a), witness the semantically anomaly in (48):

- (47) A: Vê se ele tomou banho see_{IMP-2-SG} if he took_{3-SG} shower 'Check if he took a shower!'
 B: Vejo. Pode deixar comigo
 - B: Vejo. Pode deixar comigo see_{1-SG}. can_{3-SG} leave_{INF} with-me 'Yes. Leave it with me!'
- (48) A: Vê se toma banho!

 see_{2-SG} if take_{2-SG} shower

 B: #Vejo. Pode deixar comigo
 see_{1-SG}. can_{3-SG} leave_{INF} with-me

Third, while the imperative $v\hat{e}$ is flexible in terms of subject agreement, emphatic $v\hat{e}$ is not:

- (49) Vejam se ele tomou banho see_{IMP-2-PL} if he took_{3-SG} shower 'Check if he took a shower!'
- (50) Vê /*Vejam se toma / tomam banho! See_{2-SG} / see_{2-PL} if take_{2-SG} / take_{2-PL} shower 'Make sure you take a shower!'

Fourth, imperative $v\hat{e}$ supports sentential negation, while emphatic $v\hat{e}$ does not:

- (51) Não vê se ele tomou banho (não)! Deixa para lá not see_{IMP-2-SG} if he took_{3-SG} shower not Leave_{IMP-2-SG} to there 'Do not check if he took a shower. Leave it alone!'
- (52) *Não vê se toma banho (não)! Deixa para lá not see_{2-SG} if take_{2-SG} shower not Leave_{IMP-2-SG} to there

As a final remark, let us add that the expression $v\hat{e}$ $l\hat{a}$ 'see there', on a par with de onde questions, is also used to convey the speaker's disagreement with a previously made assertion, as in (53):

- (53) A: O João vai vender a casa dele the João will_{3-SG} sell_{INF} the house of-him 'João will sell his house.'
 - B: Vê lá se o João vai vender a casa dele! see_{2-SG} there if the John will_{3-SG} sell_{INF} the house of-him 'Of course João won't sell his house! (= I doubt João will see his house.)'

 $V\hat{e}$ $l\acute{a}$ has the same syntactic properties of emphatic $v\hat{e}$: (i) it is the first element of the sentence; (ii) it combines with if-clauses only; (iii) it does not display subject agreement features, being unable to take an external argument, and (iv) it does not support sentential negation.

In summary, BP pragmatic markers are informative to investigations of how discourse-related information is encoded within syntactic structure. The brief empirical description above suggests that these markers, which in many different

languages have a similar pattern, occurring mostly in an initial position (Brinton 2014), have their own syntactic signature, projecting a structure that is different from that observed in regular questions, affirmatives, and imperative constructions.

This phenomenon, thus, opens a new window for observing and investigating the interfaces between syntax, pragmatics and phonology. As shown above, they have a specific intonational pattern and are syntactically constrained, while encoding the evaluation of the speech act participants of the proposition conveyed by the sentence. Altogether, this behavior suggests that the left periphery of sentences is endowed with a domain that encodes the point of view of the speech act participants. Data from BP can be informative to the analysis of this left periphery, showing how pragmatic markers explore the many structural possibilities available in human language. In addition, comparative studies of Portuguese varieties can be a productive arena of research, uncovering possible (micro)parametric variations in the lexicalization and syntacticization of the speaker's point of view.

5. Conclusion

This chapter presented and discussed three phenomena of BP syntax, which bring forward empirical and theoretical issues relevant to the characterization of the interfaces, LF and PF. Ellipsis is the best studied of these phenomena, and, although the syntactic, semantic and phonological conditions imposed upon nominal ellipsis and sluicing are not yet fully understood, BP offers relevant empirical contributions to formal investigations on the topic. Multiple determiner nominal expressions are much less studied and very little is known about it in BP. The description provided above is an initial step towards a formal analysis of these constructions, and hopefully future comparative work on Portuguese varieties will unveil not only the general syntactic and semantic properties of these expressions, but also potential points of variation among these varieties. Pragmatic markers are one of the jewels of research on the syntax-pragmatics interface, although only recently have they become a topic of investigation within Generative Grammar. We have shown above that these makers do not have the same syntax, semantics and phonology as their lexically related counterparts. We take it to be evidence that the syntax provide flagship information to LF and PF.

Other issues of BP grammar relevant to the characterization of the interfaces include bare singulars and double object constructions. Contrary to what is observed in BP, bare singulars are not supposed to occur in languages that display nominal number morphology (Chierchia 1998), displaying in addition a more limited distribution in argument positions. These restrictions are not found in BP, where number morphology is realized and, although there seems to be some dialectical variation, bare singulars with kind-selecting predicates occur in subject position (e.g., *Ariranha está extinto* 'Giant otters are extinct'). See Schmitt & Munn 1999, Müller 2002, Müller & Oliveira 2004, Pires de Oliveira & Rothstein 2011, among others.

Aside from clitic-doubling structures, which some authors analyze as an instance of double object constructions (DOC) (Demonte 1995, Cuervo 2003), Romance languages do not license true cases of DOC, in which a ditransitive verb is followed by two direct objects (DO), with an order inversion of the two objects (i.e., DO IO > IO DO) and deletion of the preposition introducing the indirect object (IO) (e.g., *John gave Peter a book*). The emergence of DOC has been, however, reported for some dialects of BP (Scher 1996; Gomes 2003; Scher et al. 2014). Scher (1996), analyzing ditransitive verbal structures in a dialect of Minas Gerais (MGBP), argues

that MGBP has DOC, although it does not behave as its English counterpart. First, preposition deletion can take place without inversion (e.g., *João deu o livro o Pedro* 'João give the book Peter'). Second, in MGBP, passivization with IO to subject position is not possible (e.g., *O Pedro foi dado um livro, lit. 'Peter was given a book'). Also, DOC seems less constrained in MGBP than in English. For example, DOC does not occur with verbs like *donate* and *contribute* (Larson 1988). In MGBP, this lexical restriction does not apply. Nevertheless, this is still an understudied phenomenon, with important questions still unanswered.

In sum, the data presented and discussed above illustrate some contributions of Portuguese, especially BP, to formal investigations of the interfaces between syntax and the other components of grammar.

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