



FEATURE CHECKING AND *SILENT NOUNS* IN BRAZILIAN PORTUGUESE NOMINAL AGREEMENT

CHECAGEM DE TRAÇOS E *SILENT NOUNS* NA CONCORDÂNCIA NOMINAL DO PORTUGUÊS BRASILEIRO

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Abstract: This paper presents a work on nominal concord in Brazilian Portuguese (BP) structures, such as the following: (ia) “10 ovos caipira vermelhos” (10 egg-PL caipira red-PL / ‘10 red pasture-raised eggs’) and (ia’) “10 ovos [(do TIPO) caipira] vermelhos” (10 egg-PL (of-the TYPE) caipira red-PL / ‘10 red pasture-raised eggs’). Most of the data were collected from written sources that require the use of standard language concerning agreement, *id est*, the redundant plural marking in the constituents of the DP able to bear inflection. That is why the morpheme -s is marked in *ovos* and *vermelhos* (ia). Being so, why is the word *caipira* (ia) unmarked with the plural morpheme? Following Kayne’s (2005, 2019, 2021a, 2021b), Pesetsky’s (2007, 2013), Höhn’s (2016), and Pereira’s (2016a, 2016b, 2017, 2018, 2020, 2024) approach on structures with apparent mismatch of agreement, I argue that (ia) licenses a silent noun TIPO (TYPE), preceded by the preposition *de* (‘of’), as illustrated in (ia’). Therefore, *caipira* is inflected in singular, because it agrees in number with a singular silent noun. This analysis also applies to other structures that license the silent nouns TAMANHO (SIZE), TOM (HUE), and SOBRENOME (SURNAME). As a result, there is no “unagreement”, in the phrases at stake, but agreement between the adjective and a silent noun, in the DP-internal cartography.

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Keywords: Nominal agreement; Silent nouns; DP-cartography; Brazilian Portuguese; Feature checking.

Resumo: Neste artigo, apresento uma proposta de análise para a concordância nominal no PB, em estruturas como as seguintes: (ia) “10 ovos caipira vermelhos” e (ia’) “10 ovos [(do TIPO) caipira] vermelhos”. Boa parte dos dados foi coletada a partir de fontes escritas que requerem o uso do padrão normativo de concordância, isto é, a marcação de plural em todos os constituintes do DP, aptos à flexão. Por isso, o morfema ‘-s’ está marcado em ‘ovos’ e em ‘vermelhos’ (ia). Diante disso, a pergunta que se faz é: por que a palavra ‘caipira’ não apresenta realização do morfema ‘-s’? De posse das propostas de Kayne (2005, 2019, 2021a, 2021b), Pesetsky (2007, 2013), Höhn (2016) e Pereira (2016a, 2016b, 2017, 2018, 2020, 2024) para análise de estruturas com aparente “disparidade” na concordância, argumento que (ia) licencia um nome nulo TIPO (TYPE), precedido pela preposição ‘de’, como ilustrado em (ia’). Portanto, ‘caipira’ é flexionado no singular, pois concorda em número com um silent noun no singular. Essa análise também se aplica a outras estruturas que licenciam os silent nouns TAMANHO (SIZE), TOM (HUE) e SOBRENOME (SURNAME). Conseqüentemente, não há “discordância”, nas estruturas em questão, mas concordância entre adjetivo e silent noun, na cartografia interna do DP.

Palavras-chave: Concordância nominal; Silent nouns; Cartografia do DP; Português do Brasil; Checagem de traços.

INTRODUCTION

This is a work on agreement, which has been discussed by several researchers in generative syntax, namely: Chomsky (2001), Pesetsky and Torrego (2007), Miyagawa (2017), Kayne (2005, 2021a, 2021b), Danon (2011), Norris (2014), etc. Specifically, this paper aims to analyze nominal agreement in Brazilian Portuguese (BP) structures, such as the following:

- (1) a. “ovos caipira”
Egg-PL caipira
‘pasture-raised eggs’
- b. “10 ovos caipira vermelhos”
10 egg-PL caipira red-PL
‘10 red pasture-raised eggs’
- c. “10 ovos tipo jumbo brancos”
10 egg-PL type jumbo white-PL
‘10 white jumbo-sized eggs’

(Packaging labels of egg boxes in grocery stores of Belo Horizonte-MG, December 4th, 2021)

Most of the data were collected from written sources, such as packaging labels and ads (as shown in the figures below), that require the use of standard agreement, *id est*, the redundant plural marking in the constituents of the DP. That is why the morpheme *-s* is marked in *ovos* (1a), *ovos* plus *vermelhos* (1b), and *ovos* plus *brancos* (1c). Being so, why is the word *caipira* (1a, b) unmarked with the plural morpheme? Which is the pattern behind it? These are some of the questions I will address in this paper.

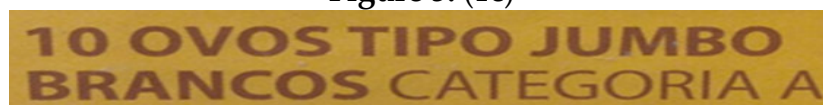
Figure 1. (1a)



Figure 2. (1b)



Figure 3. (1c)



(Source: Figures 1-3: Packaging labels of egg boxes in grocery stores of Belo Horizonte-MG, December 4th, 2021)

Other structures with a similar pattern to the one found in (1) are listed in (2 - 7):

- (2) “amêndoas doce”²
almond-FEM-PL sweet-SG
'sweet almonds'
- (3) camisas P novas
t-shirt-PL S new-PL
'new t-shirts small-sized'
- (4) a. “máscaras infantil”
Mask-PL infant-SG
'child-sized masks'

² < <https://www.ecycle.com.br/oleo-de-amendoas/> >. August 22nd, 2023.

b. “roupas infantil feminino”
garment-FEM-PL infant-SG feminine-MASC-SG
‘female child-sized garments’

(Commercial WhatsApp updates of a self-employed worker in Perdões-MG, March 5th, 2022 (4a) and November 27th, 2021 (4b))

c. “50 máscaras adulto descartáveis”³
50 mask-FEM-PL adult-MASC-SG disposable-PL
‘50 disposable masks for adults’

- (5) “lavagem expresso”⁴
laundry-FEM express-MASC
‘express laundry’
- (6) saia vermelho escuro
skirt-FEM red-MASC dark-MASC
‘a dark red skirt’
- (7) os Carvalho
The-PL Carvalho-SG
‘the Carvalhos’

In analyzing these structures, this paper aims to: (i) investigate constructions with apparent mismatch on nominal agreement; (ii) contribute to a better description of BP Syntax, based upon both the study of universals and the comparison with other languages; (iii) contribute to researches on feature checking; (iv) investigate syntactic boundaries in the DP-domain for nominal concord, such as cardinals and silent nouns; (v) analyze the DP-structure; (vi) identify the category in the DP that bear interpretable and valued gender and number features; and (vii) discuss the notion of “default agreement” (what it is, when it is used and whether it applies).

Under these goals, this work deepens and continues a broader research on nominal agreement in BP that has already analyzed structures with: the wh-determiner *ques* (Pereira, 2016a), the quantifier *cadás* (Pereira, 2018, 2019), the

3 <<https://www.tradetoner.com.br/produto/50-mascaras-adulto-descartaveis-tripla-anvisa-82010680001.html>>. March 14th, 2022.

4 <<http://www.vitorialavanderia.com.br/servicos.html>>. March 14th, 2022.

postnominal possessive *suas/seus* (Pereira, 2016b), the wh-determiner *quantos* (Pereira, 2017), the indefinite determiner *umas* (Pereira, 2017) as well as pancake sentences (Pereira, 2020, 2024), in non-standard BP. Among the results, it was shown that there is no mismatch of agreement, but a strong and universal pattern that determines the agreement in these cases. Therefore, from an empirical point of view, this paper describes and analyzes structures as those in (1) to (7) that were not still covered in the literature.

In doing so, this paper is organized as follows: firstly, I will present the theoretical background on silent nouns and nominal agreement both in languages throughout the world and in BP; secondly, the hypothesis for the analysis; and, thirdly, the conclusions.

1 THEORETICAL BACKGROUND

This section is divided into three subsections where I will present the theoretical background: initially, on silent nouns; then, on silent nouns and nominal agreement across languages; and, finally, on silent nouns and nominal agreement in Brazilian Portuguese.

1.1 Silent nouns

In contrast to data such as (8) where a deleted noun has an overt antecedent in the sentence, Kayne (2005) observes instances of deleted nouns that have no antecedent, as in (9-12). In the literature, the former is referred as “recoverable deletion” (Kayne, 2021b, p. 1) or “deletion under identity (Kayne 2019, p. 1), while the latter is referred as “specified deletion” (Kayne, 2021b, p. 1) or “antecedentless deletion” (Kayne, 2019, p. 1).

(8) Jane has five books, but Chris has three.

The author argues that: (9a) licenses a silent NUMBER, with its overt counterpart in (9b); (10a) licenses a silent COLOR, with its overt counterpart in (10b); (11a) licenses a silent YEAR, with its overt counterpart in (11b); and (12a) licenses a silent HOUR, with its overt counterpart in (12b).

- (9) a. a few books (a few NUMBER books) (Kayne, 2005, p. 241)
b. a small number of books (Kayne, 2005, p. 242)
c. John has a few/*small books (Kayne, 2005, p. 242)
- (10) a. John bought a green car yesterday (John bought a green COLOR car yesterday) (Kayne, 2005, p. 242)
b. John's suit is of a bright green color. (Kayne, 2005, p. 243)
c. John is wearing a widely discussed suit. (Kayne, 2005, p. 243)
d. John is wearing a bright green suit. (Kayne, 2005, p. 243)
- (11) a. John is three (...is three YEARS...) (Kayne, 2005, p. 245)
b. John is three years old. (KAYNE, 2005, p. 245)
c. *At the age of three, their newborn daughter already weighed 12 pounds. (KAYNE, 2005, p. 243)
- (12) a. It's six (...six HOUR...) (Kayne, 2005, p. 258)
b. They will be there in two hours/two hours' time. (Kayne, 2005, p. 260)

Silent nouns⁵ are licensed by specific words or features in the phrase, such as the adjective 'few' in (9a), the adjective of color in (10a), the indication of age in (11a), and the indication of time in (12a). According to Kayne (2005), not every noun can be silent in the way those are, because they depend upon specific licensers in the sentence. For instance, in (9c), 'small' is not able to license silent NUMBER; in (10c), "COLOR is not present [...] which does not seem possible

⁵ An anonymous reviewer raised a question about whether these silent nouns are functional or lexical categories. According to Kayne (2019, p. 1, my emphasis), when referring to antecedentless deletion, "very specific lexical items are at issue". Additionally, he assumes that "Antecedentless deleted/silent elements are limited to the functional part of the lexicon" (Kayne, 2019, p. 3, my emphasis), but he also agrees that this is still a challenging issue to account for. In that sense, I consider that the silent nouns at stake (such as: TYPE, HUE, and SIZE) are lexical categories, especially because all of them may be overt in same structures where they are silent, as shown in this paper. However, rather than this, the functional φ -features they bear is what matters for the analysis carried out and that is what should be considered to the point.

with the interpretation of” (Kayne, 2005, p. 243) (10d); and, in (11c), “The word *newborn* [...] is incompatible with *three YEARS*” (Kayne, 2005, p. 243).

On that account, Kayne (2005, p. 243) contends that:

Silent NUMBER and COLOR, in, for example, [(9a) and (10a)], have no antecedent, at least not in the strong sense of requiring an overt instance of number and color elsewhere in the sentence or previous discourse. On the other hand, there is a weaker sense in which NUMBER and COLOR do have an antecedent, namely one residing in the feature [+number] or [+color] which arguably characterizes the number adjectives *few* and *many* and the color adjectives like *green* and *red*.

Likewise, Kayne (2021a) describes other instances of silent nouns in English. So, besides COLOR (13) and NUMBER (14), he also works on SIZE (15) and KIND (16), which turns out to be some of the relevant ones that this paper is looking at in Brazilian Portuguese, as it is going to be shown in the section 2.

- (13) a. They just bought a blue car. (Kayne, 2021a, p. 4)
b. They just bought a blue COLOR car. (Kayne, 2021a, p. 4)
- (14) a. They have few friends. (Kayne, 2021a, p. 4)
b. They have few NUMBER friends. (Kayne, 2021a, p. 4)
c. Of all our students, John’s the one who’s written the fewest number of papers this year. (Kayne, 2021a, p. 4)
- (15) a. They just bought a small car. (Kayne, 2021a, p. 4)
b. They just bought a small SIZE car. (Kayne, 2021, p. 4)
- (16) a. There will be three different wines at dinner today. (Kayne, 2021a, p. 5)
b. There will be three different KIND wines at dinner today. (Kayne, 2021a, p. 5)

In (13), “*blue* is a modifier of silent COLOR (as it can be pronounced *color*), rather than of car” (Kayne, 2021a, p. 4); in (14), “*few* [...] is a modifier of NUMBER, not of friends” (Kayne, 2021a, p. 4); in (15), *small* is a modifier of SIZE; and, in (16), “different is more closely associated with silent KIND than with pronounced *wines*” (Kayne, 2021a, p. 5). As a consequence, Kayne (2021a, p. 4) contends that color adjectives as well as kind and size adjectives are not merged

directly in the DP-internal cartography, though these adjectives with their silent nouns could be. He then concludes that:

our understanding of cartographic hierarchies must go hand-in-hand with our understanding of the distribution and properties, in a given language and cross-linguistically, of silent elements of the various sorts discussed above (Kayne, 2021a, p. 7).

Additionally, it is important to mention a quite interesting paper back in the 80's. Though Aronoff (1981)⁶ does not even mention null (or silent) nouns, he inspires a consideration on the issue when analyzing automobile names in the American car industries. He argues that 'Chevrolet' and 'Cadillac' are common names rather than proper names due to the fact that they refer to things just like 'table' does. In that sense, according to Aronoff (1981, p. 331): "To ask what a Chevrolet is is like asking what a table is".

Semantically, "car names classify cars. The name specifies one or more of the following categories: year, make, line, model, and body type. When designating a car fully, all of these categories are specified in the order given:" (ARONOFF, 1981, p. 331) (17). "This means that – unlike proper names, whose semantics is relatively simple, consisting only of reference, and having no sense – car names, like all common nouns, must be possessed of both sense and reference." (Aronoff, 1981, p. 331)

(17) 1972 Chevrolet Chevelle Maliby Sedan
year make line model body type (Aronoff, 1981, p. 331)

Syntactically, just like common nouns, car names may be either modified by determiners and adjectives (18) or used to modify other nouns (19) as attributives.

⁶ Many thanks to David Pesetsky who kindly suggested this reading to me, during my visit at MIT, on April, 2022.

- (18) a. a blue Chevrolet (Aronoff, 1981, p. 331)
 b. two big Cadillacs (Aronoff, 1981, p. 331)
- (19) a. a pink Cadillac coupe (Aronoff, 1981, p. 331)
 b. a Chevrolet Impala sedan (Aronoff, 1981, p. 331)

According to Aronoff (1981, p. 331): “This attributive construction is generally used to restrict the modified noun as to subtype, or kind”. In other words, when talking about a Chevrolet, we are talking about an automobile of a certain kind (with a certain make/brand). Viewing this idea under the lights of Kayne’s approach, I consider that (20a) would be read basically as (20b) with a silent KIND, as in (20d). This would also be coherent with Aronoff’s (1981, p. 332) allegation that (20a) would reply to a question like (20c) with an overt ‘kind’.

- (20) a. a Chevrolet
 b. a KIND Chevrolet
 c. What kind of car do you drive? (Aronoff, 1981, p. 332)
 d. blue one KIND CAR -s (as in I prefer red cars, but you prefer blue ones) (Kayne, 2021a, p. 5)

In sum, it has been shown that, in the literature, silent nouns make part of the syntactic structures and may be the key to account for several puzzles on nominal agreement, DP-cartography, word order, and so forth.

1.2 Silent nouns and agreement⁷

In order to develop a proposal of analysis for the phrases in (1-7), I assume, based on Danon (2006) and Norris (2014), that there is a boundary in the DP-structure that divides it for φ -feature checking.

According to these authors, NumP works in, several languages, as a syntactic boundary for the distribution of the plural morpheme, in the internal

⁷ This section reproduces partially previous reviews I have already made about Danon (2011), Norris (2014), Kayne (2005), Pesetsky (2013), and Höhn (2016), in Pereira (2017, p. 92; 2018, p. 23-25; 2019, p. 68-69; 2020, p. 68-71).

DP-structure. For instance, in Finnish (21), “a (plural) number feature is only available above the position of the numeral” (Danon, 2011, p. 302). In Estonian (22), “material to the left of the numeral is plural, and material to the right is singular” (NORRIS, 2014, p. 143). That is why the author maintains that the numeral divides the DP into two domains.

- (21) Ne kaksi pien-tä auto-a seiso-ivat tiellä.
those.PL two.SG small-PART.SG car-PART.SG stand-PAST.3PL road.ADESS
‘Those two small cars stood at the road’ (Brattico 2010). (Danon, 2011, p. 301)
- (22) nee-d viis ilusa-t maja
this-PL.NOM 5.NOM beautiful-PAR house.PAR
‘these five beautiful houses’ (Erelt et al. 1993b:143). (Norris, 2014, p. 144)

Being so, phrases to left of cardinals are marked with the plural morpheme while phrases to the right of them are unmarked⁸. This rule is observed in examples of nominal agreement in non-standard BP (23).

⁸ An anonymous reviewer raised a question about a possible difference in the interpretation between “*ovos caipira vermelhos*” and “*ovos caipira vermelho*”. I am not sure if that would be the proper phrasing for this question, because “(?) *ovos caipira vermelho*” is not expected to be grammatical. In non-standard Brazilian Portuguese, as agreed, plural marking does not happen in the noun, but in elements before the noun: “In general, plurality is marked just on the determiner. Nouns and post-nominal adjectives are not marked for plurality” (Figueiredo Silva; Costa, 2006, p. 28). Additionally, Pereira (2017) demonstrated that phrases to the left of cardinals are marked while phrases to the right of them are unmarked, which includes the noun. That is why “10 *ovo caipira vermelho*” and “os 10 *ovo caipira vermelho*” are totally fine, but “(?) *ovos caipira vermelho*” seems to be out. In fact, when marked with plural, the lexical item ‘*ovos*’ requires a phonetical opening in the initial ‘*o*’. This phonetical opening does not happen in non-standard pronunciation. One does not naturally say “(?) 10 [o]vos caipira vermelho”, but “10 [o]vo caipira vermelho”. Therefore, in non-standard BP, even in a plural DP, the initial *o* in *ovo* is not phonetically open, and then the noun *ovo* is not marked with the plural morpheme *-s*. Having explained that, I consider that the reviewer’s question could be rephrased, as follows: is there any difference in the interpretation between (i) and (ii)?

- (i) “10 *ovo caipira vermelho*”
(ii) “10 *ovos caipira vermelhos*”

Then, the answer is yes. (i) does not license a silent TYPE while (ii) does. This fact results in a slight difference in interpretation, because, in (i), *caipira* modifies *ovo* while, in (ii), *caipira* modifies TYPE.

- (23) a. os (dois) outro carro branco
 the-PL (two) other car white
 ‘the other (two) white cars’ (Pereira, 2017, p. 86)
 b. os outros (dois) carro branco
 the-PL other-PL (two) car white
 ‘the other (two) white cars’ (Pereira, 2017, p. 86)

This rule is also observed in the inflection of *que* in dialectal BP. Internally to the DP, *ques* is in a phrase located to the left of the cardinal. As a result, the determiner *ques* is marked with the plural morpheme, while the constituents to the right of the numeral – *paisagem* and *bonita* – are unmarked.

- (24) Ques (duas) paisagem bonita!
 What-PL (two) landscape beautiful
 ‘How beautiful these landscapes are!’ (Pereira, 2016a, p. 603)

Expanding on this assumption, it has been shown that other null categories, besides cardinals, also work as a syntactic boundary in the distribution of number and gender features.

For instance, Kayne (2005, p. 241-242) observes that functional adjectives, like ‘few’ (25b), “modify a noun distinct from the visible plural *books* [...] The noun in question is a silent counterpart of the overt *number* seen in:” (25c).

- (25) a. “*a books”
 b. “a few books”
 c. “a small number of books”

Thus, in contrast to (25a), which is ungrammatical because ‘a’ is not compatible with plural nouns, (25b) is grammatical because ‘few’ modifies a silent singular NUMBER, followed by a preposition ‘of’, as seen in (25c). Moreover, number features on silent nouns may vary across languages.

For instance, in Italian (26a) and French (26b), a plural definite article co-occurs with singular phrases, which indicates that, in these languages, the silent HOUR may be plural.

- (26) a. “Sono le ore una.
 (‘are the(pl.) hours one’)” (Kayne, 2005, p. 259).
 b. “Vers les une heure.
 (‘toward the(pl.) one hour’ =
 ‘around one o’clock’)” (Kayne, 2005, p. 260).

According to Kayne (2005, p. 260):

Both the study of the conditions under which these silent nouns are licensed and the study of the cross-linguistic differences concerning them (which involves at least the syntax of plurality and the syntax of determiners) suggest that this type of silent element may turn out to constitute a more important probe into UG than might have been thought.

Additional support for assuming silent nouns as syntactic boundaries in nominal concord is provided by the position of a null feminine morpheme in Russian (27) as well as a null number morpheme in Lebanese Arabic (28) that divide their DPs into two domains for nominal agreement (Pesetsky, 2013). In this division, Russian high adjectives (27) are optionally inflected for feminine while low ones are inflected for masculine, when nouns indicating profession refers to a female individual. In Arabic (28), high adjectives are singular while low ones are optionally inflected for plural, when the sentence contains a numeral higher than ten.

- (27) U nas byl-a očen’ xoroš-aja zubn-oj vrač-ъ...
 by us COP-PST.F.SG very good-F.NOM.SG dental-M.NOM.SG doctor-NOM.SG
 ‘We had a very good (female) dentist.’ (Pesetsky, 2013, p. 38).

- (28) [tleetiin walad kesleen-Ø mnazzam-iin] Htajj-u
 thirty child.SG lazy-SG organized-PL complained-PL
 ‘Thirty organized lazy children complained (e.g., about their grades).’ (Pesetsky, 2013, p. 47)

Furthermore, evidence for silent nouns is also given by Höhn (2016), in the analysis of verbal agreement in Spanish. For instance, in (29), the verb is inflected in 1st person plural, while the DP, in subject position, is 3rd person plural.

According to the author, the verb is inflected in 1st person, because it agrees with a null 1st person pronoun *nosotros*. Hence, the apparent mismatch of agreement results from the fact that the verb agrees with a null pronoun rather than with the overt noun, in the subject DP.

- (29) (Nosotros) los estudiantes vamos todos a la playa.
We the students go.1PL all to the beach
'All of us students go to the beach./' 'We students all go to the beach.' (Höhn, 2016, p. 31)

To sum up⁹, similarly to cardinals, silent nouns work as a boundary for the DP-internal distribution of φ -features, a pattern found cross-linguistically. The

⁹ An anonymous reviewer raised a question about why this paper does not make a broader review on the nominal agreement literature, especially on variation. Besides the need to narrow down the bibliographic review as a result of limited space, another reason is that the literature on BP nominal agreement does even predict the structures analyzed in this paper. A distribution of the plural morpheme where a sole adjective, right in the middle of the DP, is unmarked with the plural morpheme while the remaining phrases are all marked, as in "10 ovos **caipira** vermelhos", is totally unexpected, under current literature, in both formal and functional approaches. For instance, according to Scherre (1997, p. 197, my translation), in a plural nominal phrase, "overt variants in first and second positions of the phrase result in an overt variant in third position [...] as well as overt variants in first, second and third positions of the phrase result in an overt variant in the fourth position", as in the following examples:

variantes explícitas na primeira e segunda posições do sintagma favorecem variante explícita na terceira posição (**as maiores privações/umas pessoas ricas**), bem como variantes explícitas na primeira, segunda e terceira posições do sintagma favorecem variante explícita na quarta posição (**as partidas todas iguais**) (Scherre, 1997, p. 197).

Additionally, according to Scherre (1997, p. 197-198, my translation), "the zero variant in the second position has an almost mandatory effect in the zero variant also in third position [...] as well as the zero variant in third position has the same effect in the fourth position", as in the following examples:

variante zero na segunda posição tem efeito quase categórico no sentido de favorecer variante zero na terceira posição (**umas borracha grande/ dois risco verde/ as casa mais antiga/ as ota menina**) bem como variante zero na terceira posição tem efeito igual para a quarta posição (**as perna toda marcada/ os piores nome feio**) (Scherre, 1997, p. 197-198).

following section will show how these boundaries appear in structures with apparent mismatch of agreement in BP.

1.3 Silent nouns and nominal agreement in Brazilian Portuguese

Based on Kayne (2005), Pereira (2017) observes that a silent noun, with valued features, triggers agreement in certain structures of BP.

For instance, in (30), the silent noun HOUR works as a syntactic boundary in the DP-internal distribution of the plural morpheme. As such, the silent HOUR is followed by a preposition, as 'of', which allows its embedded DP (*meia hora*) to be singular, while phrases to its left (*umas*) are plural. In that respect, the derivation of this DP looks like (32b).

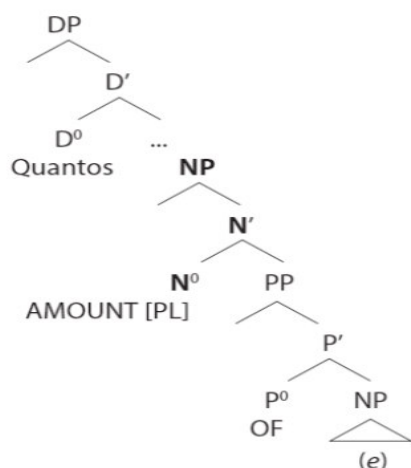
- (30) Levou umas [_{XP} HOUR of] meia hora pra dor passar.
Took some-PL half hour to-the pain pass
'It took around half an hour to get some relief from the pain.' (Pereira, 2017, p. 99)

In (31a), *quantos* projects a silent noun of the type AMOUNT (*of*). As such, because *quantos* precedes a plural silent noun, it is marked with *-s*, as observed in (31b). That being the case, the derivation of this DP looks like (32a).

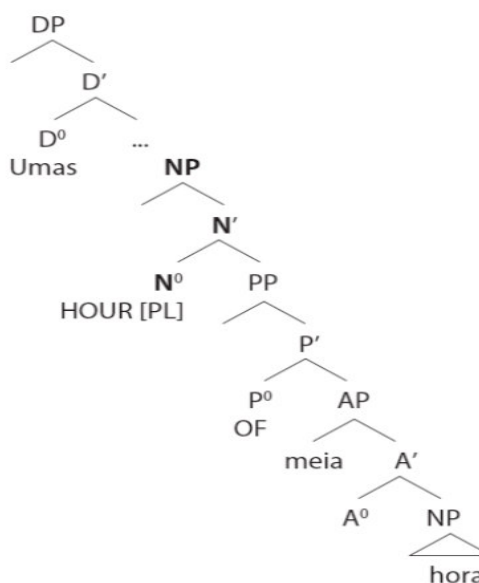
- (31) a. Quantos que custa esse? (Pereira, 2017, p. 102)
how.much.PL that cost.3rdSG this?
'How much does this one cost?'
b. Quantos (AMOUNT of *e.c.*)

In other words, according to Costa and Figueiredo Silva (2006, p. 28), "In general, plurality is marked just on the determiner. Nouns and post-nominal adjectives are not marked for plurality". Therefore, the previously mentioned predictions, from both formal and functional approaches, do not account for the data revealed in this paper.

(32) a.



(32) b.



(Adapted from Pereira 2017, p. 102 and 100)

In (33a, b), also non-standard BP data, *cada* may be inflected in plural, in contrast to standard BP where *cada* is never plural.

- (33) a. Cadas [SET of] vestido horrível! (Pereira, 2018, p. 86)
 each.PL dress horrible
 'such horrible dresses'
- b. necessidades de cadas [SET of] cliente (Pereira, 2018, p. 98)
 needs of each.PL customer
 'every customer's needs'

Pereira (2018) argues that, in (33a, b), because *cada* precedes a silent noun SET, with plural features, it gets valued with plural features via agreement and it is marked with *-s*. This plural silent noun is also followed by a preposition, which allows its embedded NP *cliente* (33b) and *vestido horrível* (33a) to be singular. Therefore, *cada* licenses a silent noun with plural features both when it is a quantifier (33b) with a set reading and when it is a qualifier (33a) with an intensifier reading.

Likewise, in structures such as (34a), the subject has a noun inflected in feminine gender while the adjective, in predicate position, is masculine. This results in apparent morphological "mismatch" of gender agreement. Pereira

(2020, 2024) assumes that a pronominal null ALGO, in the DP predicate, triggers the gender agreement, as observed in (34b). Henceforth, the predicate APs, in structures such as (34a), make up a DP with a covert noun: [_{DP}ALGO perigoso]. This silent noun bears masculine gender features (and singular number) and triggers agreement in gender in the adjective.

- (34) a. Moto é perigoso. (Pereira, 2020, p. 79; 2024, p. 126)
Motorcycle-FEM-SG is dangerous-MASC-SG
'Motorcycles are dangerous'.
b. Moto é [_{DP}(ALGO) perigoso]
Motorcycle-FEM-SG is (SOMETHING) dangerous-MASC-SG
'Motorcycles are dangerous'/'A motorcycle is something dangerous'.

To sum up, in certain structures of BP, a silent noun bears number features and works as a boundary dividing the DP into two domains, such that phrases preceding a plural silent noun are marked with the plural morpheme while phrases following it are embedded to a preposition and can be unmarked. Φ -features are then checked between modifiers and silent nouns.

2 ANALYSIS

2.1 Main proposal

As it was presented in the theoretical review, BP has shown a consistent pattern of agreement with silent nouns.

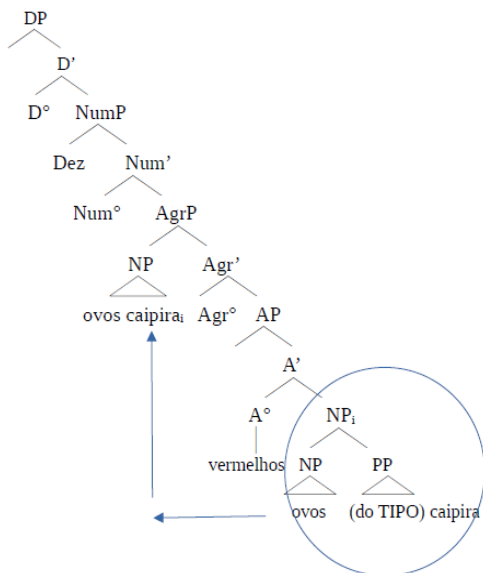
Following Kayne (2005, 2019, 2021a, 2021b) and Pereira's (2017, 2018, 2020, 2024) approach on BP data with *quantos*, *umas*, *cadás*, and pancake sentences, that license respectively a silent AMOUNT, HOUR, SET, and SOMETHING, I argue that (1a, b), repeated below, license a silent noun TIPO (TYPE), preceded by the preposition *de*, as illustrated in (1a', b'). Under this analysis, *caipira* is inflected in singular, because it agrees in number with a singular silent noun TIPO. This same silent noun is overt in (1c).

- (1) a. "ovos [(do TIPO) caipira]"
 egg-PL (of-the TYPE) caipira
 'pasture-raised eggs'
 b. "10 ovos [(do TIPO) caipira] vermelhos"
 10 egg-PL (of-the TYPE) caipira red-PL
 '10 red pasture-raised eggs'
 c. "10 ovos tipo jumbo brancos"
 10 egg-PL type jumbo white-PL
 '10 white jumbo-sized eggs'

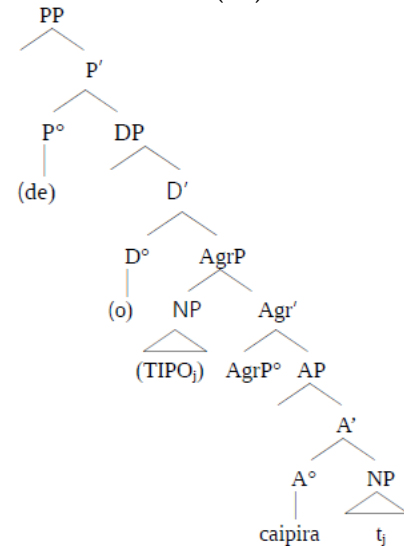
(Adapted from packaging labels of egg boxes in grocery stores of Belo Horizonte -MG, December 4th, 2021)

The derivation of structures such as (1b), drawn according to Cinque (2005), is seen in (35).

(35) a. For (1b)



(35) b. For the PP in (1b)



Prepared by the author

As observed in (35a), the PP [(do tipo) caipira] is merged as an adjunct to the name *ovos*. Raising [*ovos (do tipo) caipira*], in pied-piping, to an AgrP higher than the AP *vermelhos* justifies the position of this color adjective to the right of [*ovos caipira*].

It is also observed that the singular inflection of *caipira* is triggered because *caipira* agrees in number with the silent noun TIPO that is located in the internal

structure of the PP [(do tipo) caipira] (35b). This silent noun bears singular features and triggers agreement with the adjective *caipira*. In this operation (Pesetsky; Torrego, 2007), the adjective (probe), containing uninterpretable number features, becomes valued [*uF val*] via agreement with the silent noun TIPO (TYPE), containing interpretable and valued number features [*iF val*].

Likewise, (2) to (7), repeated below, license the silent nouns TIPO (TYPE), TAMANHO (SIZE), TOM (HUE), and SOBRENOME (SURNAME). In these structures, the postnominal constituents agree with the respective silent noun that precedes them in singular number (*doce* (2), *P* (3), *infantil* (4a), and *Carvalho* (7)) as well as in masculine gender (*expresso* (5), *feminino* (4b), *adulto* (4c), and *vermelho escuro* (6)).

(2) “amêndoas [(do TIPO) doce]”¹⁰
almond-FEM-PL (of-the TYPE) sweet-SG
‘sweet almonds’

(3) camisas [(de TAMANHO) P] novas
t-shirt-PL (of SIZE) S new-PL
‘new t-shirts small-sized’

(4) a. “máscaras [(do TIPO) infantil]”
mask-PL (of-the TYPE) infant
‘child-sized masks’

b. “roupas [(do TIPO) infantil feminino]”
garment-FEM-PL (of-the TYPE) infant-SG feminine-MASC-SG
‘female child-sized garments’

(Commercial WhatsApp updates of a self-employed worker in Perdões-MG, March 5th, 2022 (4a) and November 27th, 2021 (4b))

c. “50 máscaras [(do TIPO) adulto] descartáveis”¹¹
50 mask-PL (of-the TYPE) adult-MASC disposable-PL
‘50 disposable masks for adults’

¹⁰ < <https://www.ecycle.com.br/oleo-de-amendoas/> >. August 22nd, 2023.

¹¹ < <https://www.tradetoner.com.br/produto/50-mascaras-adulto-descartaveis-tripla-anvisa-82010680001.html> >. March 14th, 2022.

- (5) “lavagem [(do TIPO) expresso]”¹²
 laundry-FEM (of-the TYPE) express-MASC
 ‘express laundry’
- (6) saia [(de TOM) vermelho escuro]
 skirt-FEM (of HUE) red-MASC dark-MASC
 ‘a dark red skirt’
- (7) os [(familiares de SOBRENOME) Carvalho]
 The-PL (relatives of SURNAME) Carvalho
 ‘the Carvalhos’

In this matter, instead of *default* agreement, a concept pervasively used to account for cases of inflection in singular and masculine, despite the presence of elements in plural number or feminine gender, in (1-7), agreement is triggered by a silent noun, in singular and masculine (rather than by overt phrases, in plural or feminine), which consists of a regular pattern of feature checking.

2.2 Some remarks

In the following lines, I will explore two aspects of the analysis assumed above: the first one is the role of narrow syntax or interface domains in the phenomenon as well as the plural marking on an adjective that is linearly placed to the right of a silent noun.

In order to address the question of whether, in the examined data, agreement happens in narrow syntax or is an interface phenomenon triggered after spell out, I will firstly present a work by Kučerová (2019) on such an interesting pattern of agreement in Italian (36a-c). According to Kučerová (2019), the three following patterns of agreement are accepted when the noun *chirurgo* (‘surgeon’) (ending in either *-a* or *-o*) refers to a female individual.

- (36) a. La chirurg-a è andat-a.
 the.F surgeon-F is gone-F
 ‘The female surgeon is gone.’

12 < <http://www.vitorialavanderia.com.br/servicos.html> >. March 14th, 2022.

- b. La chirurgo è andat-a.
 the.F surgeon is gone-F
 ‘The female surgeon is gone.’
- c. Il chirurgo è andat-a.
 the.M surgeon is gone-F
 ‘The female surgeon is gone.’ (Kučerová, 2019, p. 656-657)

While, in (36a), the partitive predicate (*andat-a*) agrees in feminine gender with the noun (*chirurg-a*) in subject position, in (36b) and in (36c), the partitive is also inflected in feminine despite the fact that the noun (*chirurgo*), in subject position, is in the masculine gender form. According to Kučerová (2019), this happens because *-o* in the word *chirurgo* has been reanalyzed as a class marker with a less gender form [gen _], rather than a masculine gender morpheme.

In that sense, the author assumes that, in narrow syntax, *chirurgo* would have an unvalued gender feature. So, when referring to a male professional, this item would trigger the default agreement, which happens to be pronounced as a masculine form (37). In contrast, when referring to a female professional, *chirurgo* (36b and 36c) would get valued features at the syntax-semantics interface. Only after being endowed with these features, *chirurgo* would trigger feminine gender agreement in the predicate (*andat-a*).

- (37) Il chirurg-o è andat-o.
 the.M surgeon-M is gone-M
 ‘The (male) surgeon is gone.’ (Kučerová, 2019, p. 656)

Additionally, according to the author, this is the result of a process of change undergoing in Italian with this word and some others that refer to professions formerly restricted to men, but progressively being performed by women. These nouns “shift from having a lexically specified grammatical masculine gender to a minimal nominal representation without a valued gender feature. This minimal representation then allows a larger level of flexibility with respect to contextually assigned gender” (Kučerová, 2019, p. 656).

In a comparative view, the type of agreement triggered by Italian *chirurgo* differs from what happens with the BP data that have been examined in this paper, in two different ways: firstly, the agreement under analysis in BP happens in narrow syntax, with no need of an interface procedure at φ -feature checking; secondly, it is not the case that a process of change in gender has been undergoing in the nouns considered in BP. The idea is that BP silent TYPE (*tipo*), for instance, comes from the lexicon into syntax with masculine gender features, before spell out.

Therefore, in structures like (5) [*lavagem expresso*], *expresso* gets masculine gender features triggered by agreement with a silent masculine TYPE (*tipo*). All of this happens before spell out, in narrow syntax, according to the operation described previously, based on Pesetsky and Torrego (2007). The same reasoning seems to apply to number agreement in (1a) *ovos caipira* where *caipira* gets singular number features triggered by agreement with a silent singular TYPE.

At this point, an issue I still need to clarify is why *vermelhos* (1b), which is a phrase to the right of a silent noun, is marked with the plural morpheme, when I have been claiming the opposite, *id est*, that phrases to the right of silent nouns should be unmarked. It is important to make clear that the plural agreement of *vermelhos* in that structure is not triggered by the silent noun TYPE.

As we can see in (38) below, [(*do tipo*) *caipira*] is included in a phrase as an adjunct position (already shown in 35a) with scope over *ovos vermelhos*. That is why [(*do tipo*) *caipira*] is relatively flexible in the DP, appearing either after *ovos* (38a) or after *ovos vermelhos* (38b). Therefore, the silent noun triggers agreement inside its phrasal domain [(*do tipo*) *caipira*] (as already shown in 35b). As such, the inflection of *vermelhos* does not have to do with the silent noun TYPE, because *vermelhos*, as opposed to *caipira*, is outside the phrase containing the silent noun.

- (38) a. 10 ovos [(*do tipo*) *caipira*] vermelhos
10 egg-PL (of-the TYPE) caipira red-PL

'10 red pasture-raised eggs'
 b. 10 ovos vermelhos [(do tipo) caipira]
 10 egg-PL red-PL (of-the TYPE) caipira
 '10 red pasture-raised eggs'

Both *ovos* and *vermelhos* are inflected in plural because they are governed by the rule, current in standard BP, in that all the DP-phrases that bear inflection should be marked with the plural morpheme, in a redundant fashion. The application of this rule is coherent with the venues (egg boxes in commercial urban establishments) where these data were collected from and where a more formal style is expected. On the other hand, *caipira* is singular because it is inside the domain containing the silent TYPE and agrees with it in singular.

Being so, the prediction that phrases located at the right of a silent noun are unmarked does hold, as singular *caipira* is at the right of a silent TYPE. In sum, I hope to have made clear that the fact that *vermelhos* is linearly situated after the silent noun is not, in this specific case, an argument against the main prediction of this paper, because it is hierarchically outside the domain of the phrase containing the silent noun.

There is still another aspect of this analysis that needs to be observed. This concerns the possibility of a plural *caipiras*, as in (39a). I will point out that, when agreement in plural takes place, neither a silent noun (TYPE) nor an extra adjunct phrase (*dos tipos caipiras*) (39b) is licensed. Thus, while, in (38), repeated below as (40a), *caipira* gravitates over the silent noun TIPO, in (39a), *caipiras* gravitates over the overt noun *ovos*.

- (39) a. 10 ovos caipiras vermelhos
 10 egg-PL caipira-PL red-PL
 '10 red pasture-raised eggs'
- b. # 10 ovos dos tipos caipiras vermelhos
 10 egg-PL of-the-PL type-PL caipira-PL red-PL
 '10 red eggs of pasture-raised types'

- (40) a. 10 ovos caipira vermelhos
 10 egg-PL caipira red-PL
 ‘10 red pasture-raised eggs’
- b. 10 ovos de tipo caipira vermelhos
 10 egg-PL of type caipira red-PL
 ‘10 red pasture-raised eggs’

As a result, the plural *caipiras* is not compatible with an overt counterpart of the silent TYPE. In fact, (39b), with an overt plural noun *tipos*, conveys a different meaning¹³ from (39a) (39b≠39a). Additionally, while [*ovos caipira vermelhos*] (with the singular *caipira*) accepts the overt realization of *tipo* without changing its meaning (40b=40a), [*ovos caipiras vermelhos*] (with plural *caipiras*) does not. This is due to fact that, as stated, in (40a), *caipira* is a modifier of the singular silent TIPO while, in (39a), *caipiras* is a modifier of the overt plural *ovos*.¹⁴

In conclusion, if it is true that the presence of the plural mark in *caipiras* (39a) is not compatible with an overt counterpart of the silent noun TYPE and

¹³ In order to demonstrate these different interpretations, it is important to remind that, in (39a) “10 ovos caipiras vermelhos”, *caipiras* modifies the noun *ovos* and refers to a certain type of eggs, produced when chickens are raised freely, in an open field. In contrast, in (39b) “10 ovos dos tipos caipiras vermelhos”, with an overt plural noun *tipos*, *caipiras* modifies the noun *tipos* and refers presumably to certain types of *caipira* that could be explained in the following way: genuine *caipira* eggs would be those produced in one’s own property or gotten directly from a small farmer, that has a quite limited production and that may sell their eggs in farmer’s markets (especially in small towns). Some people may call these eggs as *ovo caipirão*. That would be a first type of *caipira* eggs. In contrast, not very genuine *caipira* eggs would be those purchased in big grocery stores. They come from a large-scale production, in boxes labeled *caipira*, but their real origin is not really known by customers. That would be a second type of *caipira*. Therefore, (39a) and (39b) convey slightly different meanings.

¹⁴ Considered an anonymous reviewer observation, another aspect of this analysis that needs to be addressed is the status of the silent preposition preceding the silent noun. This preposition is not mandatory, when there is an overt counterpart of the singular silent TYPE (ia). This was already seen in (1c), repeated below as (ib), where the word *tipo* is overt without the preposition *de*.

- (i) a. ovos (de) tipo caipira vermelhos
 10 egg-PL (of) type caipira red-PL
 ‘10 red eggs of a pasture-raised type’
- b. “10 ovos tipo jumbo brancos”
 10 eggs type jumbo white-PL
 ‘10 white jumbo-sized eggs’

hence does not license it, it is also true that the absence of the plural mark in *caipira* (40a) is not just an optional or interface phenomenon. There is something into the syntactic computation that governs the pattern shown in (1-7) and that has to do with the licensing of a silent noun.¹⁵

3 CONCLUSION

The analysis carried out in this paper demonstrates that the structures at stake present, rather than “unagreement”, a coherent pattern of agreement between modifiers and a silent noun, in the DP-internal cartography.

REFERENCES

ARONOFF, Mark. Automobile Semantics. *Linguistic Inquiry*, v. 12, n. 3, p. 329-347, 1981.

CHOMSKY, Noam. Derivation by phase. In: KENSTOWICZ, Michael (Ed.). *Ken Hale: a life in language*. Cambridge, MA: The MIT Press, 2001. p. 1-52.

CINQUE, Guglielmo. Deriving Greenberg’s Universal 20 and its exceptions. *Linguistic Inquiry*, v. 6, n.3, p. 315-332, 2005.

¹⁵ Considered an anonymous reviewer observation, there might be consequences of the analysis I am assuming for [*ovos (do TIPO) caipira*] to agreement in compounds formed by N+N in BP, as follows. Studies on Distributed Morphology assume that agreement on compounds is governed by syntactic rules. For instance, Prim (2019) observes that both *palavras-chave* and *palavras-chaves* are allowed in BP. According to the author, this is due to two coexisting syntactic rules for these compounds. If the speaker considers that the second item of the compound (*chave*) has a nominal behavior, only the first one tends to be inflected (*palavras-chave*). In this case, the compound would be analyzed as a word with two coordinated heads. On the other hand, if the speaker considers that the second item (*chave*) has an adjectival behavior, both the first and the second noun are inflected (*palavras-chaves*) just like in nominal concord where the modifier agrees with the noun. In this case, the compound would be analyzed as a single headed word followed by a modifier. Therefore, “the inflectional variations observed in the way speakers pluralize compounds are due to concurrent analyzes, made by the speaker’s internal grammar” (PRIM, 2019, p. 50). In expanding the analysis so far assumed for silent nouns to compounds, the first pattern of agreement could be translated into this paper’s analysis with a silent TYPE: *palavras (de TIPO) chave*. In that sense, it would be possible to say that the “modifier” *chave* agrees with the silent noun in singular. Therefore, a consequence of a possible extension of the analysis I am assuming for DPs to compounds (N+N) is that it attests the assumption that agreement may work between words in compounds as it works between constituents in phrases.

COSTA, João; FIGUEIREDO SILVA, Maria. Nominal and verbal agreement in Portuguese: an argument for distributed morphology. In: _____ (Eds.). *Studies on agreement*. Amsterdam/ Philadelphia: John Benjamins, 2006. p. 25-46.

DANON, Gabi. Agreement and DP-Internal Feature Distribution. *Syntax*, v. 14, n. 4, p. 297-317, 2011.

HÖHN, Georg. Unagreement is an illusion: apparent person mismatches and nominal structure. *Natural Language & Linguistic Theory*, v. 34, n. 2, p. 543-592, 2016.

KAYNE, Richard. *On certain aspects of the interaction between cartography and silent elements*. Mailing List, October 31st, 2021a. p. 1-8.

_____. *On the why of NP-deletion*. Mailing List, November 6th, 2021b. p. 1-10.

_____. *A note on the tension between silent elements and lexical ambiguity, with special reference to inalienable possession*. Mailing List, November 24th, 2019. p. 1-9.

_____. *Movement and Silence*. Oxford; New York: Oxford University Press, 2005.

KUČEROVÁ, Ivona. On the role of person in the mapping of syntactic features onto their interpretable counterparts. *The Canadian Journal of Linguistics*, v. 64, n. 4, 2019, p. 649-672.

MIYAGAWA, Shigeru. *Agreement beyond ϕ* . Cambridge, MA: MIT Press, 2017.

NORRIS, Mark. *A theory of nominal concord*. PhD Dissertation, University of California, Santa Cruz, 2014.

PEREIRA, Bruna Karla. Copular exclamatives and gender agreement. In: GUESSER, Simone; MARCHESAN, Ani; MEDEIROS, Paulo (Eds.). *Wh-exclamatives, Imperatives and Wh-questions: Issues on Brazilian Portuguese*. Berlin, Boston: De Gruyter, 2024, p. 117-142.

_____. Gênero em sentenças copulares no PB: da “discordância” entre sujeito e predicativo para a concordância entre adjetivo e *silent noun*. *Caderno de Squibs*, v. 6, p. 66-90, 2020.

_____. Flexão de ‘cada’ em concordância com o *silent noun* SET. In: HORA, Dermeval da; PEDROSA, Juliene; OSÓRIO, Paulo; LUCENA, Rubens (Eds.). *Estudos Linguísticos (Teorias e Aplicações): Contribuições da Associação de Linguística e Filologia da América Latina - ALFAL*. São Paulo: Terracota, 2019. p. 63-79.

_____. Inflection of ‘cada’ and number feature valuation in BP. *Estudos Linguísticos e Literários*, v. 61, p. 85-103, 2018.

_____. The DP-internal distribution of the plural morpheme in Brazilian Portuguese. *MIT Working Papers in Linguistics*, v. 81, p. 85-104, 2017.

_____. Exclamatives and interrogatives with 'ques': the CP/DP hierarchy and the plural marking in Brazilian Portuguese. *Signótica*, v. 28, n. 2, p. 581-611, 2016a.

_____. Feature interpretability and the positions of 2nd person possessives in Brazilian Portuguese. *Filologia e Linguística Portuguesa*, v. 18, p. 199-229, 2016b.

PESETSKY, David. *Russian case morphology and the syntactic categories*. Cambridge, MA: MIT Press, 2013.

PESETSKY, David; TORREGO, Esther. The syntax of valuation and interpretability of features. In: KARIMI, Simin et al. (Eds.). *Phrasal and clausal architecture*. Amsterdam: John Benjamins, 2007. p. 262-294.

PRIM, Cristina. A concordância nominal em compostos formados por adjetivos e nomes do português brasileiro. *Caderno de Squibs: Temas em estudos formais da linguagem*, v. 5, n. 1, p. 50-60, 2019.

SCHERRE Maria Marta. Concordância nominal e funcionalismo. *Alfa*, v. 41, n. especial, p. 181-206, 1997.

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