



ON THE LACK OF ADJACENCY IN AUXILIARY CONSTRUCTIONS IN BRAZILIAN PORTUGUESE*¹

SOBRE LA FALTA DE ADYACENCIA EN LAS CONSTRUCCIONES AUXILIARES EN PORTUGUÉS BRASILEÑO

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Abstract: This paper addresses verb movement in Brazilian Portuguese (BP) under a cartographic approach and proposes an analysis of the analytic construction in the language. Based on the different positions of adverbs, we argue that the auxiliary verb and its non-finite verb end up in different positions after the derivation is completed, creating a slot between the two. We bring out evidence for the existence of this slot by presenting independent studies that include the possibility of intervening clitics, emphatic subjects, negation, which point to the non-existence of a complex predicate structure encompassing auxiliaries and main verbs in BP. The paper highlights the consequences of the loss of verb movement and the advanced state of analyticization in BP and contributes to the ongoing discussion on these topics in Romance languages.

Keywords: verb movement, analytic construction, verbal adjacency

Resumen: Este artículo aborda el tema del movimiento verbal en el portugués brasileño (PB) desde una perspectiva cartográfica y propone un análisis de la construcción analítica en la lengua. Basándonos en las diferentes posiciones de los adverbios, argumentamos que el verbo auxiliar y su verbo no finito terminan en posiciones diferentes una vez completada la derivación, creando un espacio entre ambos. Aportamos evidencia de la existencia de este espacio presentando estudios independientes que incluyen la posibilidad de clíticos intervinientes, sujetos enfáticos, negación, los cuales apuntan a la inexistencia de una estructura de predicado complejo que englobe auxiliares y verbos principales en el PB. El artículo destaca las consecuencias de la pérdida del movimiento verbal y el avanzado estado de analiticidad en el PB, y contribuye a la discusión en curso sobre estos temas en las lenguas romances.

Palabras-clave: movimiento verbal, construcción analítica, adyacencia verbal

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1. INTRODUCTION

Verb movement has been the topic of research for many decades (Emonds 1978; Pollock 1989; Belletti 1990, among others), the issue initially being to provide an account of the differences between English and French regarding the position of fixed elements such as negation and other adverbs (as *often/souvent*) in relation to the position of the lexical verb. In the European and Brazilian Portuguese varieties, the topic has also been investigated (Galves 1994; Costa & Galves 2002, among others), showing that if one assumes adverbs as diagnostics, these Portuguese varieties also display verb movement. For Portuguese, low adverbs such as *bem* ‘well’ have been considered as the mark of the VP (verbal phrase) edge – since the verb cannot appear to its right, the verb must have moved out of the VP. Research on the topic has recently been retaken in the light of Cinque’s (1999) cartographic approach (Tescari Neto 2013; Schifano 2018; Araújo-Adriano 2023, among others), and the focus has been on a comparative approach of Romance languages.

Besides the position of the verb in relation to adverbs, other phenomena have been attributed to the existence of verb movement in a language. As regards Portuguese, Cyrino and Matos (2005) notice that Brazilian (BP) and European (EP) Portuguese varieties show a different behavior. In EP, the verb moves up to the temporal domain (TP), whereas in BP, the lexical verb moves up to a lower aspectual domain (AspP). For BP, Cyrino (2013) relates the loss of (high) lexical verb movement to (T) to the increase in analytic verbal forms in the language. In her analysis, in BP synthetic forms lose temporal meaning – the lexical verb has lost temporal meaning and only moves up to Asp to check aspectual features (see also Araújo-Adriano 2023). Hence, these forms are replaced by analytic ones, in which the auxiliary is responsible for checking temporal features by moving up to T.

In this paper, we advance the research on these topics, and we focus on the syntax of analytic forms in Brazilian Portuguese, leaving European Portuguese for future research. We consider the proposal in Harwood (2015), whereby the auxiliary is the head of its own shell. We propose that in BP the auxiliary moves up to T, whereas the lexical verb ends up in Asp. This process generates a structural gap between the auxiliary and the lexical verb. Our proposal predicts that low adverbs (and other constituents) may fill out this gap and break the adjacency in auxiliary constructions.

In this sense, this paper contributes to a more detailed understanding of the syntax of verbs in BP. We put together observations that have prevailed the literature, such as loss of verb movement, analyticization, generalized proclisis, intervention of elements in the verbal complex, and we offer an analysis based on verb movement, whereby these phenomena can be accounted for in a unified way.

This paper is organized as follows. In section 2, we show that BP is in an advanced state of analyticization. After that, we present some data that suggest auxiliaries and their verbal complement, may be intervened by certain adverbs (section 3). In section 4, we propose that auxiliaries must leave their position in Asp by considering interface conditions on labelling. As a support for our proposal, we present, in section 5, the observation of previous independent studies (Galves, Moraes & Ribeiro 2005, Cyrino 2010, Cyrino 2024) that show that BP allows intervening clitics, intervening emphatic subjects and negation in the slot between AUX and V. We conclude by indicating that our proposal provides a unified account of the peculiar facts of BP verbal syntax, a contribution that also opens the possibility of our analysis be extended to the investigation of the different stages of analyticization of other Romance languages.

2. THE AUXILIARY CONSTRUCTION IN BP

Analyticity is the quality of a language displaying any linguistic property encoded in more than one word, not in a single one (Sapir 1921: 127-128). Different from what was proposed by the structuralists, where a language has or has not the property mentioned, analyticity seems not to be taken as a *tout court* property but instead as a tendency. *Contra* this *tout court* analysis, Ledgeway (2017) shows that Latin, a language considered by many scholars as extremely synthetic, had some analytic constructions (see the synthetic construction in (1a) *versus* the analytic construction in (1c)), while Romance languages, considered analytic (see 1b) through a shift from synthetic to analytic from Latin to Romance, also exhibit synthetic constructions (1d). This contrast led Ledgeway (2017) to argue that analyticization is a tendency, not an absolute property.

- | | | | |
|-----|----|--|----------|
| (1) | a. | Paul- o .
Paul.DAT
'To Paul.' (Ledgeway 2017: 868) | (Latin) |
| | b. | A Paul.
DAT Paul
'To Paul.' (Ledgeway 2017: 868) | (French) |
| | c. | Arma sunt humi inuenta .
weapons are ground found
'The weapons have been found on the ground.' (Ledgeway 2017: 859) | (Latin) |
| | d. | Humble ment et douce ment .
'Humbly and sweetly.' (Ledgeway 2017: 863) | (French) |

Concerning Brazilian Portuguese (BP), whilst some constructions are synthetic, such as the gender and number markings in (2), other ones are highly analytic.

- (2) alun-a-s (student.FEM.PL)

Consider, for instance, the idea of the superlative, which expresses the highest degree of a quality/property. On the one hand, the language displays synthetic forms to convey such degree reading through the *-íssim*, *-rim*, *-im* markings, respectively, in (3); on the other hand, these markings have been losing ground to the analytic constructions headed by some adverbs such as *muito* 'very', *super* 'super', *híper* 'hiper' that stand in for the synthetic degree constructions, as in (4).

- | | | | |
|-----|----|------------------|--|
| (3) | a. | simpático 'kind' | – simpatic-íssim-o (kind.SUPER) |
| | b. | magro 'thin' | – magé-rrim-o (thin.SUPER) |
| | c. | humilde 'humble' | – humíl-im-o (humble.SUPER) |
| (4) | a. | simpático 'kind' | – super/muito/híper simpatic-o (very.SUPER kind) |
| | b. | magro 'thin' | – super/muito/híper magr-o (very.SUPER thin) |
| | c. | humilde 'humble' | – super/muito/híper humilde (very.SUPER humble) |

Another analytic tendency found in BP is in the verbal paradigm. As argued by Cyrino (2013) and Araújo-Adriano (2020), despite the presence of synthetic verbal forms in the written registers (see (5a)), BP cannot be considered a rich Tense language – Biberauer and Roberts' (2010) terminology – for analytic constructions have gained ground among speakers (5b). As pointed out in the literature, this tendency to convey Tense through analytic constructions is in an advanced state (see Cyrino 2013; Reintges & Cyrino 2016, 2018; Araújo-Adriano 2020, 2023; Carvalho & Bassani 2021).

- (5) falar ‘to speak’, 1 person singular
 a. *falo* (present indicative), *falarei* (future), *falei* (preterit), *falava* (imperfect), *falara* (pluperfect), *falaria* (conditional), *falasse* (past subjunctive), *fale* (present subjunctive) (Cyrino 2013: 300)
 b. *estou falando* (present/progressive), *vou falar* (future), *estava falando* (past/past progressive), *tinha falado* (past perfect), *ia falar* (imperfect), ~~*falasse*~~, ~~*fale*~~

Another example that evidences the advanced state of analyticization in BP is the verb form conveying simultaneity with the eventuality. Obligatorily, speakers use the analytic form headed by the auxiliary *estar* ‘be’ + gerund to trigger a present Tense interpretation. The exception of this pattern regards performative verbs, which is taken by Araújo-Adriano (2023) as a matter of a nanoparametric variation, that is, one or more individual lexical items is/are specified for a certain parameter, in the sense of Biberauer & Roberts (2012), Roberts (2016, 2019). In contrast, the synthetic present Tense, ungrammatical with that interpretation in present-day Portuguese (6), is dedicated to conveying not Tense *per se* but Aspect, such as HABITUAL, FREQUENTATIVE, GENERIC *etc.* (7). Interestingly, when the system was not highly analytic, until the end of the 19th century, the synthetic present tense could trigger present Tense, as the diachronic data in (8) suggest (see Araújo-Adriano, 2023).

- (6) (Olha,) o João está fumando (*fuma).
 look the João is smoking
 ‘(Look,) João is smoking.’
- (7) O João fuma.
 ‘J. smokes’ (he is a smoker)
- (8) Personagem A – Minha mãe, eu não estou triste. (Limpa os olhos com o lenço).
 character A my mother I not am sad wipes the eyes with a tissue
 Personagem B – Ahi tem! De que chora?
 character B there has of what cry
 ‘Character A – I am not sad, mom. (Wipes her eyes with a tissue)
 Character B – There is something there! What are you crying about?’ (1845, *O noviço* play)

Analytic constructions, like the ones that convey different Tenses in BP, are often assumed to be complex predicates, that is, they consist of a sequence that comprises the auxiliary and the non-finite verb: [Aux]+[VP] → [Aux+VP] (see Lehmann 1988; Gonçalves & Costa 2002; Boye 2003; Anderson 2006; Müller 2006; Bernstein 2011; Gibson & Marten, 2015; Ledgeway 2017; Resende & Araújo-Adriano 2019). One piece of evidence that points to this monoclausal predicate construction is the adjacency between the auxiliary and their verb complement (but also see other evidence in the following sections). For instance, Ceccetto (2002: 14) suggests that a sequence of word forms a single syntactic constituent when it is illicit to insert new material between them. One kind of material that could not intervene between AUX and VP is the adverb (Ledgeway 2017: 848). In Spanish adverb *todavía* ‘still’ cannot separate the auxiliary and its verb complement, as the following example suggests⁴.

⁴ We are aware that there are other Romance languages that allow the intervention of adverbs between the auxiliary and the verb. In contrast to Catalan and Spanish, which do not allow intervenient adverbs, Romanian allows only five adverbs between AUX and V, namely *cam* ‘rather, quite’, *mai* ‘again, also’, *prea* ‘too much’, *și* ‘also, already, indeed, even’, and *tot* ‘still, also’ (see Smith 2022: 82). It is interesting

- (9) Todavía no ha (*todavía) llegado.
 Still no has still arrived
 ‘(S)he has not still arrived.’ (Ledgeway 2017: 848)

In contrast, the hypothesis of a single constituent formed between an auxiliary and a non-finite verb in BP has already been questioned. Investigating auxiliary verbs, for instance, Ferreira (2009) observes that the adjacency between an auxiliary and a non-finite verb can be disrupted by certain lexical material. The intervening adverbs *este ano* ‘this year’ and *inclusive* ‘even’ would indicate the absence of strict adjacency in the BP periphrasis in (10).

- (10) a. Os alunos vão este ano projetar dois carros.
 the students go this year design two cars
 ‘The students will design two cars this year.’ (Ferreira 2009: 94)
 b. O jornal vai inclusive publicar as fotos.
 the newspaper go including publish the pictures
 ‘The news will even publish the pictures.’ (Ferreira 2009: 95)

However, one comment must be made regarding the author’s data. The kind of adverb used to argue against the constituency between auxiliaries and lexical verbs seems inadequate. Take (10a) for instance: temporal adverbs such as *este ano* ‘this year’ seem to display a partial free distribution (Cinque, 1999: 12). Such free distribution can be governed by the usage of commas, where the position of the temporal adverb can be in different places, either preceding the subject (e.g., *Este ano, os alunos vão...* ‘This year, the students will...’), or intervening the auxiliary and the lexical verb (e.g., *Os alunos vão, este ano, projetar...* ‘The students will, this year, design...’), and at the end of the sentence (e.g., *Os alunos vão projetar dois carros, este ano* ‘The students will design two cars, this year’). Indeed, sentence (10a) seems more natural with the temporal adverb between a comma, which forces it to receive a different intonation, what is often referred to as an ‘intonational comma’. Since comma intonation is avoided because it changes the scope of modification, licensing different structural configurations (see Cinque 1999: 87; Tescari Neto, 2013: 200; Schifano, 2018: 3), we might raise a concern about the data in (10a) by flagging it as a potential issue. In other words, if the adverbs were between commas, the sentences would seem more natural, such as in *Os alunos vão, este ano, projetar dois carros* or *O jornal vai, inclusive, publicar as fotos*. Even without the commas, the intonation one gives to the sentences is equivalent to its presence, which might switch on a red light on the data.

In addition, adverbs such as *inclusive/até mesmo* ‘even’ are focusing adverbs that take short scope over some structure. In being so, neither the comma intonation nor the focus reading might be used as a reliable diagnosis, given that the ordering, such as the one in (10), could have been generated by the left dislocation of the adverb, even generating other orders (see Belletti 2004; Cinque 1999; Schifano 2018; Tescari Neto 2013): [*Este ano*] *os alunos vão projetar dois carros* / *Os alunos vão projetar dois carros* [*este ano*] ‘The students will project two cars this year’ / [*Inclusive*], *o*

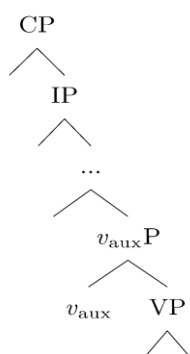
to note that in both Italian and French, intervention by adverbs is allowed, as seen in *ho già fatto* and *j’ai déjà fait*. Most importantly, in these languages, the only way to convey the simple past is through an analytical construction, which suggests that they are in an advanced state of analyticization regarding the Past Tense, different from Brazilian Portuguese that underwent a generalized analyticization process, albeit it has not included the Past Tense (see, however, Araújo-Adriano 2023).

jornal vai publicar as fotos / O jornal vai publicar as fotos, [inclusive] ‘The newspaper will even publish the photos’. In short, in order to more accurately determine the absence or presence of syntactic single constituency between auxiliaries and non-finite lexical verbs, other kinds of adverbs must be used.⁵

3. ON THE CONNECTION BETWEEN AUXILIARIES AND NON-FINITE VERBS

Within the Generative Grammar framework, the restriction on adverb intervention in certain contexts, such as between AUX and VP, can be explained based on the now familiar two assumptions: adverbs are fixed in the structure (Belletti 1990; Emonds 1978; Pollock 1989), more specifically in the space between CP and VP – under a TP-split hypothesis (Cinque 1999), and auxiliary verbs are raising predicates that select non-finite verb forms (see Ross 1969; D’Alessandro & Roberts 2008 p. 418; Harwood 2015). In this way, the non-intervention between the auxiliary and the non-finite verb can be naturally accounted for: the auxiliary and the non-finite verb, $v_{aux}P$ in (11), move together to the inflectional phrase as a singleton so that no material can intervene between them.

(11)



In order to test the adjacency between auxiliaries (AUX) and their non-finite domain (VP), we adopted Ledgeway & Lombardi (2005), who, based on Cinque’s (1999) Functional Hierarchy, proposed the hierarchy shown in (12). The sequence of adverbs will offer evidence of whether adverbs can(not) intervene between AUX-VP, as well as it may show more precisely what kind of syntactic operation generates the possible orderings among AUX, VP and adverbs. Depending upon the placement of the verb in relation to these fixed and ordered adverbs, the height of verb movement will be determined. Based on the order, the precedence of the verb regarding the adverb, *e.g.*, *souvent* ‘often’ in Spec, $Asp_{Frequentative(II)}$, amounts to saying that, from its base-merged position, the verb moved (at least) to the following Functional Projection (*viz.* $Asp_{Repetitive(II)}$), to generate the V_ADV order. By contrast, whether the verb is found to the right of the adverb (*viz.* ADV_V), being ungrammatical in the order where the former precedes the latter, we attest either a lower instance of movement or no movement. This variation regarding higher or lower movement accounts for the different positions of the

⁵ Assuming a cartographic approach such as Cinque (2006), *contra* Ferreira (2009), the merging position of restructuring verbs cannot always be equated to that of perfective auxiliaries, so they cannot be used to revisit the adjacency issue between the auxiliary and the past participle.

verb concerning adverbs in French (13a) and English (13b), as observed by Emonds (1978), Pollock (1989), and Belletti (1990).

(12) The Universal Hierarchy of Functional Projections of the IP (from Cinque 1999; Ledgeway & Lombardi 2005)

HIGH: [*frankly* Mood_{SpeechAct} > [*luckily* Mood_{Evaluative} > [*allegedly* Mood_{Evidential} > [*probably* Mod_{Epistemic} > [*once* T_{Past} > [*then* T_{Future} > [*perhaps* Mood_{Irrealis} > [*necessarily* Mod_{Necessity} > [*possibly* Mod_{possibility} > [*usually* Asp_{Habitual} > [*finally* Asp_{Delayed} > [*tendentially* Asp_{Predispositional} > [*again* Asp_{Repetitive(I)} > [*often* Asp_{Frequentative(I)} > [*willingly* Mod_{Volition} > [*quickly* Asp_{Celerative(I)} > **LOW:** [*already* T_{Anterior} > [*no longer* Asp_{Terminative} > [*still* Asp_{Continuative} > [*always* Asp_{Continuous} > [*just* Asp_{Retrospective} > [*soon* Asp_{Proximative} > [*briefly* Asp_{Durative} > [(?) Asp_{Generic/Progressive} > [*almost* Asp_{Prospective} > [*suddenly* Asp_{Inceptive} > [*obligatorily* Mod_{Obligation} > [*in vain* Asp_{Frustrative} > [(?) Asp_{Conative} > [*completely* Asp_{SgCompleative(I)} > [*everything* Asp_{PlCompleative} > [*well* Voice > [*early* Asp_{Celerative(II)} > [(?) Asp_{Inceptive(II)} > [*again* Asp_{Repetitive(II)} > [*often* Asp_{Frequentative(II)} > vP–VP

- (13) a. Jean embrasse souvent (*embrasse) Marie.
 Jean kisses often kisses Marie
 ‘Jean often kisses Marie.’
 b. John (*kisses) often kisses Mary. (Adapted from Pollock, 1989: 367)

Before testing the position of AUX and VP concerning adverbs, the base-merged position of auxiliaries must be set. Several studies have indicated that functional verbs are universally ordered (see Cinque 1999, 2006; Harwood 2015; Tenny 1987). This fixed order can be seen by the contrast presented in (14), which gives rise to the order in (15)⁶ in Brazilian Portuguese.

- (14) a. Esse assunto deve ter estado sendo debatido na imprensa
 this subject must have been being debated in-the press
 com alguma frequência.
 with some frequency
 ‘This subject must have been being debated in the press with some frequency’
 (Azevedo 2004: 122)
 b. *Esse assunto ter deve estado sendo debatido na imprensa
 this subject have must been being debated in-the press
 com alguma frequência.
 with some frequency

(15) tense > modality > perfect aspect > progressive aspect > voice > verb

While this sequence of auxiliaries is widely acknowledged in the literature, there is an ongoing debate regarding whether these verbs are directly placed in the TAM field or if they initially occupy a lower position before later moving to the TAM field. Some scholars argue that

⁶ The hierarchy in (15) refers to functional projections below the expanded Inflectional/Tense Phrase hierarchy in (12). This amounts to saying that Tense is higher than the functional projections that host relevant auxiliaries and aspectual forms. Actually, this has already been demonstrated in Chomsky (1957), when he proposed that $V \rightarrow Aux + V$, and $Aux \rightarrow C(M)$ (*have + en*) (*be + ing*) (*be + en*), where C refers to, Tense, but not only, while in $M \rightarrow will, can, may, shall, must$, M refers to modality. In this sense, Tense > Modality, where > means precedence, or, higher than.

auxiliaries are positioned in the TAM field because they do not contribute to assigning thematic roles (see Roberts 1992a: 226, Cinque 1999: 58, 188 – Note 16, Roberts & Roussou 2003: 45). Alternatively, others propose a similar generalization if auxiliary verbs are inserted outside the argument/thematic field, that is, beyond VP and even vP boundaries (see D'Alessandro & Roberts 2008: 481, D'Alessandro & Ledgeway 2010: 336, Biberauer & Roberts 2012: 275 – Note 5, 278, Harwood 2013: 33–4, Araújo-Adriano 2019: 74–5, Araújo-Adriano 2023: 154–157).

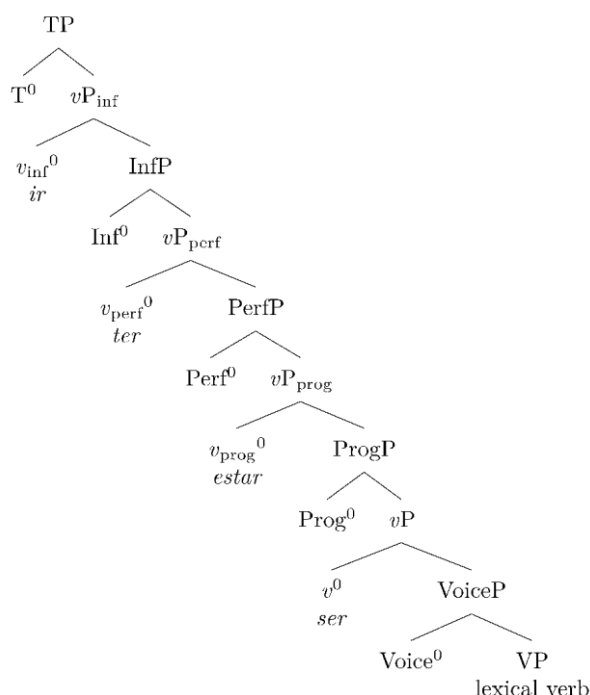
- (16) a. Ele tinha saído, mas ela não tinha ____.
he had left but she not had
'He has left, but she has not.' (____ = [tinha] saído)
has left
- b. Ela não leva o computador para as aulas, pois os amigos também
she not bring the computer to the classes because the friends too
não levam ____.
not bring
'Ana does not bring her computer to classes because her friend don't, either.'
(____ = [levam] o computador para as aulas)
bring the computer to the classes

- (17) Ela tem lido livros às crianças e ele tem *também* lido __. (√BP, *EP)
 she has read books to-the children and he has also read
 ‘She has read books to the children and he has, too.’
VP ellipsis: __ = [vP ~~lido~~ os livros às crianças]
 read the books to the children

- (18) ele [_T tem] [_{VPaux} ~~tem~~] [_{AdvP} [_{Adv} também] [_{Asp} PerfP lido [_{VP} -]]]
(Cyrino & Matos 2005, p. 99, ex (62))

Given the evidence provided by Cyrino & Matos (2005) for the position of the verb and the auxiliary in Brazilian Portuguese just seen, and to account for the fixed order in (15), we assume that auxiliaries are taken to be base merged above VP, to head their own vP shell, and to select a specific non-finite verbal phrase as a complement, as put forward by Harwood (2015). In the case of BP, *ir* ‘go’ selects an Inf(initival) P(hrase), *ter* ‘have’ selects a Perf(ective)P, *estar* ‘be’ a Prog(ressive)P, and *ser* ‘be’ a VoiceP, as seen in the structure sketched in (19). Hence, whether auxiliaries establish a tight contiguity with their non-finite domain – where there is a single constituent [AUX+VP] –, or a loose contiguity – where the auxiliary and the lexical verb are not contiguous – depends upon two necessary conditions: (i) whether they leave their vP shell together and (ii) whether they end up in their landing position together⁷.

(19)



Considering our assumptions, we are now able to verify whether BP auxiliary verbs meet conditions (i) and (ii) above. Many authors suggest that the verb in BP must leave its base-merged position (see Galves 1993, 1994; Modesto 2000; Brito 2001; Costa & Galves 2002; Cyrino 2013; Tescari Neto 2013). This movement can be seen by the postposition of the lower adverbs in the IP *com frequência* ‘frequently’ (see (20a))⁸, *de novo* ‘again’ (see (20b)), and *bem* ‘well’ (see (20c)) with respect to both auxiliaries and their non-finite domain. Under our assumptions that adverbs are fixed in the structure (see (12)), this order can only be accounted for if auxiliaries and their non-finite complement leave together from within vP.

⁷ If auxiliaries do not leave their vP shell along with their verbal complement, different elements, such as adverbs, can be merged with or be moved to the gap between the auxiliary and the lexical verb that, as a result, becomes accessible. Hence, building a single constituent with [AUX+V] amounts to saying that auxiliaries and V leave their base-merged position together.

⁸ These examples are based not only on our grammaticality judgments but also on the judgments of some Brazilian speakers that we consulted.

- (20)
- a. João (*com frequência) **tem** (*com frequência) **cozinhado** com frequência.
João with frequency has with frequency cooked with frequency
'João has cooked frequently.'
 - b. Depois de várias tentativas, o policial (*de novo) **tinha** (*de novo)
after of several tries the policeman of new had of new
errado de novo.
failed of new
'After many tries, the policeman had once again failed.'
 - c. Quando ela crescer, a Maria (*bem) **vai** (*bem) **nadar** bem.
when she grow-up the Maria well go well swim well
'When she grows up, Maria will swim well.'

So far, condition (i) is met: BP auxiliaries seem to build a single constituent with their verbal complement.

However, the following examples show that *quase* 'almost' must intervene between the auxiliary and the non-finite domain. This adverb in a preverbal position with respect to *ter* 'have' in (21a) can be analyzed as being dislocated to the left periphery – signalled by DLP. Inspired by Garzonio & Poletto (2014) in the case of the Italian *quasi* 'almost', Tescari Neto (2013, p. 136) and Tescari Neto & Forero Pataquiva (2020, p. 502-503) analyzed *quase* in Brazilian Portuguese and suggested that, since a quantifier subject such as *ninguém* 'noone' cannot precede *quase* (*Ninguém quase acabou a tarefa ainda/'noone almost finished the task yet'), this adverb moves to the left periphery to values an informational feature, possibly focus. Despite the precedence of this adverb, its postposition in relation to the auxiliary is licensed not only for the auxiliary *ter* 'have' (21a), but also for *ir* 'go' (21b) and *estar* 'be' (21c). In the latter case, for instance, the dislocation/precedence is not licensed: the only grammatical position in relation to the auxiliary and its verb complement is the interposition of *almost*.

- (21)
- a. Eu ^{DLP}quase **tinha** quase te **ligado** (*quase), quando...
I almost had almost you called almost when
'I had almost called you, when...'
 - b. Quem diria que 4 anos depois [a gasolina] **ia** quase **dobrar** de preço⁹
who say that 4 years after the gas went almost double of price
'Who would say that four years later, the gas would almost double in price'.
 - c. Eu (*quase) **estou** quase **terminando** (*quase) a ligação.
I almost am almost finishing almost the call
'I am almost finishing the call.'

All in all, although condition (i), which says AUX+VP must leave their base-merged position together, is met, condition (ii) is not fulfilled: the natural position of the adverb *quase* 'almost' is between the auxiliary and its verb complement.

As we have seen, the non-finite verb must end up in a position lower than the auxiliary in Brazilian Portuguese. What is then the landing site of the auxiliary? Moving further, the data regarding the adverb *ainda* 'still' can shed some light on this position. Even though the data in (22) might suggest the movement of the auxiliary is optional, given the precedence of *still*, this view is misled: auxiliaries are obligatorily found to the left of this adverb. When we observe the adverb *não ainda* 'not yet' in (23), the data suggest auxiliaries not only might, but they must move over *ainda* 'still.' Turning back to the preverbal position of *ainda* 'still' in (22), it might be accounted for by its dislocation

⁹ <https://twitter.com/jordanacoqueiro/status/1505709566205607937?s=20&t=ug5MYVeEEBxCCxNbMXQMjw>

to the left periphery¹⁰ (as suggested by Andriani 2016 in the case of the dialect Italian *ancora* ‘still’), and not as an optional movement of the auxiliary.

- (22) Depois que o Pedro gritou, ele ^{DLP}ainda **tinha** ainda **jogado** *ainda o copo
 after that the Pedro shouted he still had still thrown still the glass
 no chão.
 on-the floor
 ‘After P. shouted, he had still thrown the glass down on the floor.’

- (23) (Adapted from Tescari Neto 2013: 48¹¹)
 a. *O José não ainda **tinha** **chegado** no serviço.
 the José not yet had arrived at work
 ‘José had not yet arrived at work.’
 b. O José não **tinha** ainda **chegado** no serviço.
 the José not had yet arrived at work
 ‘José had not yet arrived at work.’

The following adverb *já* ‘already’ shows the limit of the movement of auxiliaries in BP. The only neutral grammatical sentence is one with the adverb in preverbal position. Thus, we see that auxiliaries must end in a position after the adverb *já* ‘already’, but they must precede every lower adverb than *já* (see (12)).

- (24) a. O Mário já **está** (*já) **escrevendo** (*já) um livro.
 the Mário already is already writing already a book
 ‘Maria is already writing a book.’
 b. A Maria já **tem** (*já) **visto** (*já) resultado da dieta.
 the Maria already has already seen already result of-the diet
 ‘M. has already seen results from the diet.’

In the preceding lines, based on the fixed position of adverbs, we have shown that auxiliaries and their non-finite complement end up in different positions^{12,13}. For our

¹⁰ This left dislocation of *ainda* ‘still’ seems to be on the right track given its precedence to a quantifier subject in lower Foc position, such as *ninguém* ‘nobody’:

(i) No começo, ainda ninguém tinha tentado elaborar uma versão falada para essa questão dos novos pronomes

‘In the beginning, no one had yet tried to work out a spoken version for this issue of new pronouns’ (from <https://www.extraclasse.org.br/geral/2021/10/a-gramatica-da-inclusao/>).

¹¹ As noted by Tescari Neto (2013: 48), the postposition of the adverb is only possible with a marked reading:

(i) O José não **tinha** **chegado** AINDA no serviço AINDA.
 the José not had arrived yet at work yet
 ‘José had not arrived at work yet.’

¹² In European Portuguese, some adverbs such as *sempre* ‘always’ can intervene between *estar* ‘be’ + preposition *a* + infinitive (to a discussion about the adverb *sempre* in BP and EP, see Tescari Neto 2013; Araújo-Adriano 2022). This structure, however, is not the same as the Brazilian *estar* ‘be’ + gerund, mainly because the non-finite verb is actually the complement of the prepositional head (see Raposo 1989), different from the Brazilian variety in which the non-finite verb is the complement of the auxiliary. Given that they are different structures, and the intervening adverb seems to take place only concerning the *estar* + *a* + infinitive, we leave this interesting aspect of the European Portuguese for future investigation.

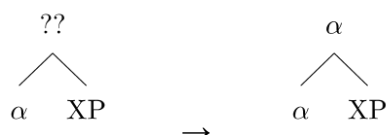
¹³ One may question whether the position of adverbs is the only explanation for the gap between auxiliaries and main verbs given the fact that in languages like French and Italian, it is possible to find certain adverbs between the perfective auxiliary and the past participle. For example, certain adverbs such as *dejà* and *già* ‘already’ are possible between the auxiliary and the participle. We assume that both the auxiliary and the

discussion, instead of an articulated structure of functional heads, it suffices to assume that the IP is structured in an Aspect zone, Tense zone and Mood zone (see Schifano 2018). In this sense, auxiliaries and their non-finite verb complement must leave vP together, but the former ends up in the Aspect zone, whilst auxiliaries are in the Tense zone.

4. THE STRUCTURE OF AUXILIARIES AND NON-FINITE DOMAINS

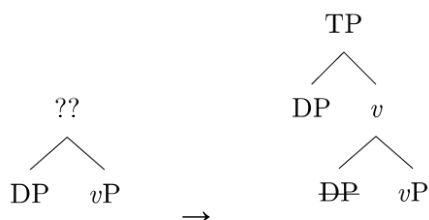
Throughout the previous section, we tacitly assumed that auxiliary verbs move to the Inflectional Phrase, but we have not motivated this operation. We turn to this issue now. Under the Minimalist Program, everything generated by narrow syntax must meet external conditions of the interfaces, a premise under the Strong Minimalist Thesis (see Chomsky 1995). Some of these conditions state that items must be labelled and linearized through a labelling algorithm (LA) and Kayne's (1994) Linear Correspondence Axiom (LCA), respectively. If these conditions are not met, the structure generated is unstable. Take, for instance (25), where a head α and a phrase XP are Merged. In this case, LA considers the label of the object as its closest head, α itself.

(25)



The object formed between two phrases is labelled in two ways. Given that there are two closest heads, LA can attribute a label to the object if it gets modified. Hence, LA somehow forces the movement of an internal category to scan for a proper label (see Moro *et al.* 2001). In one phrase moving to a higher position, the only closest visible head to LA will be the head of the non-moved phrase. A scenario of this type comprises the movement of the external argument to the T position: the head of both vP and DP can provide a label to their merged object, which amounts to saying that this object is unstable (see (26)). To repair it, the DP moves to Spec,T allowing LA to scan the proper label. Under this approach, DP movement to T is not triggered by an EPP feature but by an external condition: repairing an unstable object.

(26)



When no object moves, LA seeks the common, most prominent feature between the merged objects. This is the case of (27a), where [which dog breed] is internally

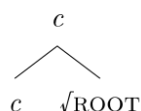
non-finite verb move up as a complex, and at some point, they split. In our view, analytic tenses open a 'gap' for intervening elements (see footnote 3). As we will show below, in BP, besides adverbs, several other elements are possible to occur in that slot not only in Aux+participle but also in other analytic structures, as Aux+gerund constructions.

merged with a CP, both [+MAX] elements. Here, heads of both WH and C phrases are enabled to label the object; however, because none of them moves further (28), LA seeks for the property both have in common, an (interrogative) Q-feature, and labels α as Q (27b).

- (27) a. [they wondered [α [_{wh} which dog breed] [C I have _]]
 b. [they wondered [Q [_{wh} which dog breed] [C I have _]]
- (28) a. *Which dog breed they wonder I have.
 b. *I have they wondered which dog breed.

Finally, the last occasion that LA applies is when two heads merge, the beginning of every derivation. Based on Marantz (1997) and Borer (2005), Chomsky (2013, 2015) proposes that the starting point of a derivation is between the merge of an uncategorized root and a categorizer *c*. Given that roots do not have any syntactic property, the label of the object is *c*:

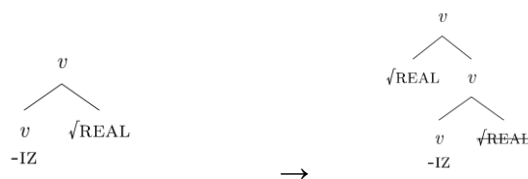
(29)



Although the object formed by a root and its categorizer has a label, it is still unstable. Since they *c*-command each other, the structure cannot provide the information that either the former precedes the latter or *vice versa*; that is, the structure cannot be linearized. Hence, some operations must be applied to repair this unstable structure; otherwise, it will crash in the interfaces. Moro and Roberts (2021) suggest two strategies to repair this unstable structure in (29). The first one regards the movement of the root, where it would asymmetrically *c*-command *c* and LCA would have the information that the root precedes *c*, an instance of roll-up movement, that is, movement of the complement around the head (see Aboh 2004; Cinque 2005; Danckaert 2018; Biberauer *et al.* 2014b)¹⁴. This is the case of Romance Languages, where a verbalizer *v* must follow the root but not precede it. Take, for instance, the overt realization of *v* as *-iz* (30): the root must be linearized as preceding the verbalizer, as in *real-iz-a* ‘he/she realizes’ (see **iz-a-real*). Hence, the only way LCA is provided with that information is by moving the root around the head, an instance of head-final configuration.

¹⁴ Biberauer, Holmberg and Roberts (2014, p. 208) understand “roll up movement” as successive leftward movement of complements and categories containing moved complements. In this sense, since the root is the complement of the head of *v*, it amounts to a “roll up movement”. There is also a notion of “roll up movement” as a phrasal movement, which displaces a complement XP to the local specifier and is applied repeatedly, giving rise to a “snowballing/ roll up” effect. Cinque (2005: 317) points out, for example, that “moving successively to each such Spec and pied-piping the category that dominates it, in a “roll-up” fashion” results in the reverse order of modifiers.

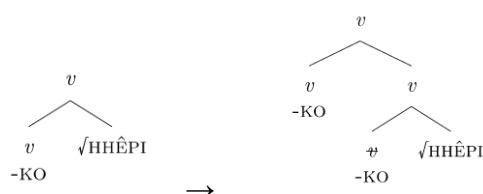
(30)



The other strategy suggested by Moro and Roberts (2021) gives rise to head-initial construction. The unstable structure can be repaired by the movement of the categorizer, a case of head movement. An example of this kind of repairment appears in Terêna, an Arawakan language spoken in southwestern Brazil¹⁵, where the verbalizer exponent *-ko* precedes the root $\sqrt{\text{HHÊPI}}$ (see Butler & Ekdahl 1979: 27

4), as in *ko-hhêpi-ti* ‘it is expansive’ (VERB-price-PROG/DESCR).

(31)



According to the authors, both options are parametrized: languages can strategically repair an unstable structure by rollup or head movement. Notwithstanding, as noted by the authors, the parameter options “can “flip” at any stage of the derivation” (Moro & Roberts 2021: 10); that is, not all structures in a given language must follow either one or another option. If they do, it will give rise to a fully harmonic head-final language; if they do not, a disharmonic head-final language will arise.

(32) (Moro & Roberts 2021: 10)

Repair an unstable structure either with

- a. Move X (= head-movement, giving head-initial structure/order), or with
- b. Move Y (= roll-up, giving head-final structure/order).

After the verb layer is built, the next derivational step is the External Merge of Asp, and further T, and Mood (see (12)). Following Oda (2021: 137), Roberts (2022) proposes that if Asp, Tense or Mood are affixal are weak heads that bear uninterpretable features. Hence, due to their uninterpretability, they are too weak to label, which forces the movement of *v* as a repairing mechanism¹⁶. Again, movement is approached as a strategy to label unstable objects¹⁷. In (33), for instance, given the affixal status of Asp, its uninterpretable feature cannot label α . The movement of *v* is then triggered. In

¹⁵ Thanks to Maria Filomena Spatti Sandalo, p.c., for the data here.

¹⁶ An anonymous reviewer asked about the connection between being affixal and being (un)interpretable. Assuming with Adger (2003) that uninterpretable features are connected to c-selectional features, we can understand that (un)interpretability borne by affixes amounts to saying that affixes need to be merged with another lexical item. Plural, for instance, is an interpretable feature concerning number, but might have, arguably, an uninterpretable feature that forces it to be merged with a noun, which can be formalized as [*i*Number, *u*Noun], in the case of a plural nominal, in order to have its uninterpretability checked. It prevents ungrammatical structures like **“s casa”* ‘s home’ instead of *“casa-s”* ‘home-s’.

¹⁷ This approach to movement was also implemented to French, English and Welsh (see Roberts 2022).

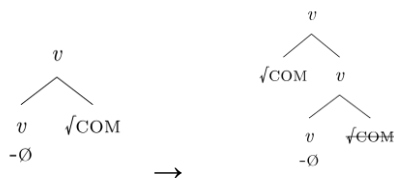
Chomsky (2019) sense, the structure internally Merged is a Pair-Merge, giving rise to v -Asp. When clausal T, M(ood) merge the structure, inasmuch as they are affixal or uninterpretable – incapable of labelling – they internally merge v .

(33)



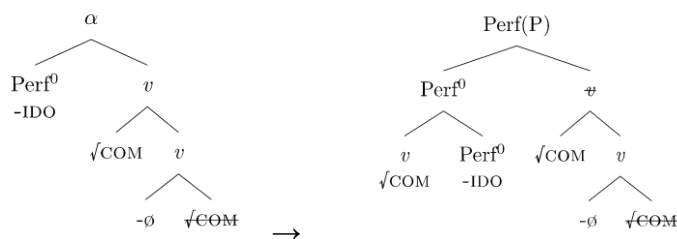
Turning back to BP auxiliary constructions, to generate a structure such as *tem comido* ‘has eaten’, the $\sqrt{\text{COM}}$ ‘eat’ is merged with a verbaliser of a null exponent. The object cannot be linearized; hence rollup (see (32b)) of the root around v is triggered to give rise to the precedence of the root concerning the categorizer¹⁸:

(34)



Next, Perf^0 is inserted (see (16)). Since it is affixal (-ido), it is morphophonologically dependent in Oda’s (2021) sense, and it cannot label α , as in (35). Hence, the movement of v , that contains $\sqrt{\text{COM}}$, is triggered as the only option to repair this unstable structure. The consequence of this repairment is the building of the participle: $\sqrt{\text{COM}}\text{-}\emptyset\text{-IDO}$ (to a proposal where labelling is compatible with a more intricate structure, viz., the cartographic approach, see Rizzi 2015).

(35)



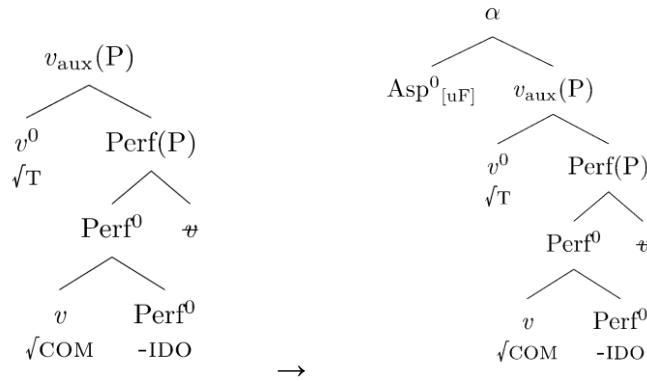
Note that if Perf^0 were not affixal, hence independent, verb movement would not be triggered, given its capacity to label. This is the case, e.g., of the perfective particle *wedi* in Welsh: the lexical verb does not move past v , and *wedi* is base merged in Perf^0 , not triggering the movement of the verb, as suggested by Roberts (2022).

¹⁸ It is worth noting that this movement around the head is not a violation of anti-locality (Bošković, 1994; Grohmann 2003), because complement-to specifier movement is not necessarily too local, as suggested by Biberauer *et al.* (2014a), Moro & Roberts (2021) in the case of roll-up movement.

- (36) Mae ‘r plant i gyd wedi bod yn canu (Welsh)
 BE.3SG.PRS=the children all PERF BE PROG sing
 ‘The children all have been singing’ (Roberts 2022: 3)

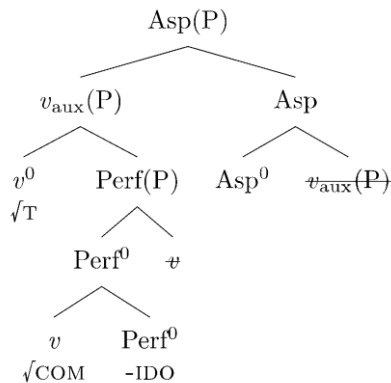
After $\sqrt{T}$ from the auxiliary *ter* ‘have’ is merged with PerfP (see (19)), clausal Asp^0 is inserted. Given that Asp is affixal (i.e., the exponent *-va*) in BP, i.e., uninterpretable, it is incapable of labelling α . Hence, any object must move to repair this unstable structure. As presented in (32), there are two candidates: either v_{aux}^0 or $v_{\text{aux}}(\text{P})$.

(37)



We propose that what moves to Asp is $v_{\text{aux}}(\text{P})$ because what triggers the aspectual interpretation is not only the auxiliary, but the set [auxiliary + non-finite verb]. It is neither only the auxiliary nor only the participle, but it is the whole structure $v_{\text{aux}}(\text{P})$ that triggers the pluperfect interpretation, an action completed – licensed by the participle – before some past point – licensed by the Tense in the auxiliary. We claim that the aspectual feature, e.g., [+RETROSPECTIVE], is borne by the lexical verb; however, when it is merged¹⁹ with the auxiliary, the newly formed object has features that belong to both merged elements: auxiliary verb and Perf^0 . In this sense, the output of $\text{Merge}(v_{\text{aux}}, \text{Perf}(\text{P}))$ has [iA, iT, iM, +RETROSPECTIVE], and the way to repair the unstable structure generated by the merge of Asp^0 is *via* roll-up of $v_{\text{aux}}(\text{P})$:

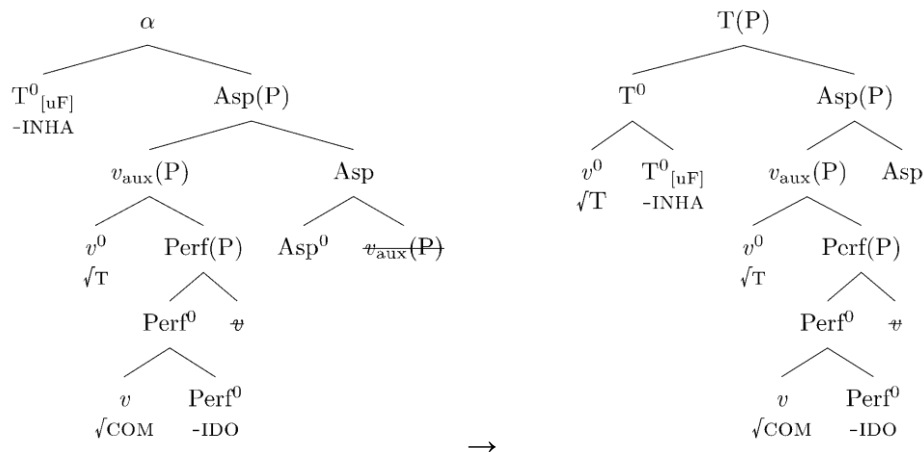
(38)



¹⁹ Merge is being taken as originally proposed by Chomsky (2008: 138): “Merge of X and Y leaves the two SOs unchanged. If so, then Merge of X and Y can be taken to yield the set X, Y, the simplest possibility worth considering. Merge cannot break up X or Y or add new features to them”.

Next, T^0 , which is also affixal and uninterpretable, merges with $\text{Asp}(P)$. The structure is unstable, given that it has no label, and, again, there are two options to repair it (39a): head-movement ($= v_{\text{aux}}^0$) or roll-up ($= v_{\text{aux}}(P)$). We claim that, since repairing is parametrically set (Moro; Roberts 2021), BP repairs the unstable output of Merge (T , $\text{Asp}(P)$) via head-movement of v_{aux} , i.e., auxiliaries in BP move along with their non-finite complement to Asp – in a roll-up strategy – but leave the non-finite complement there and move by their own to lexicalise T – in an instance of head movement –, as represented in (39b).

(39)



The claim that auxiliaries must leave the non-finite domain in Asp , creating a gap between them, seems to be on the right track because the string [AUX-V] is intervened by adverbs, that is, the intervening adverb can only be accounted for if there is a gap between auxiliaries and their non-finite verb complement, as we saw above (see sections 2 and 3 for further evidence). If the strategy to repair the Merge between T , $\text{Asp}(P)$ was by roll-up movement, that is, by moving $v_{\text{aux}}P$ instead of only v_{aux}^0 , one would not expect to find intervening adverbs, contrary to facts. This might be the case in Romanian, where the verb moves to a very high field, and interpolation is not allowed (see (40) below). It amounts to saying that since Asp , T , and M are $[uF]$ (see Schifano 2018), the Romanian strategy to repair these unstable functional structures is roll-up movement until $\text{Mood}(P)$.

- (40) Am (*adesea) vazut adesea filme bune
 I.have often seen often movies good
 ‘I have often seen good movies.’ (Schifano 2018: 76, footnote 23)

Given that non-finite lexical verbs are supposed to build a tight connection with the auxiliary, it is impossible to find VP fronting, where the non-finite domain dislocates without the verb. This property aligns with the principle that only constituents can undergo movement. However, in BP, one can observe fronting in auxiliary constructions, as illustrated in (41). Araújo-Adriano (2021, 2025) shows that VP fronting can occur either with the lexical verb’s object or with the entire non-finite domain (for infinitival VP-topicalization, see Bastos 2001). This indicates, then, that the non-finite verb is not tightly tied to the auxiliary, so much so that it can move independently, which is a piece of evidence suggesting that there is indeed a gap between AUX and V, where V can be dislocated.

- (41) Se a Maria disse que estava fazendo dieta, é porque...
 If the Maria said that was doing diet is because
 (i) fazendo dieta ela tava
 doing diet she was
 (ii) dieta ela tava fazendo
 diet she was doing
 ‘lit. If M. said that she was doing a diet, then (i) doing a diet she was/ (ii) a diet she was doing.’

In this paper, we show three patterns concerning the position of auxiliaries and their verb complements with respect to fixed adverbs: some adverbs (*viz. bem* ‘well’, *com frequência* ‘frequently’, see (20)) obligatorily follow both auxiliary and their verb complement – PATTERN 1 –, higher adverbs (*viz. quase* ‘almost’, *ainda* ‘still’, see (21)-(22)) intervene between these verbs – PATTERN 2 –, and even higher adverbs precede both of them, which is the case of the adverb *já* ‘yet’ (see (24)) – PATTERN 3.

To account for these facts, we proposed that PATTERN 1 is generated by the rollup movement of both the auxiliary and its verb complement from their base-merged position to the Aspectual zone. Although they reach this zone together, only the auxiliary moves further to the Tense zone, leaving the non-finite verb behind in the Aspectual layer. Let us call this sequence of operations a disharmonic repairing strategy. This separation of the Aux and its complement gives rise to PATTERN 2. Finally, PATTERN 3 is generated by the movement of the auxiliary only until the Tense zone, not further. Hence, whilst the first and the third patterns meet condition 1 for the auxiliary and their verb complement to be considered contiguous, a complex predicate, a single constituent, PATTERN 2 is evidence that they do not display adjacency in their structure: superficially, they seem to be adjacent – in the absence of an adverb, for instance –, but there is a gap in their structure, that is, they do not form a single constituent (a complex predicate) because the auxiliary and the lexical verb land in different positions.

In the next section, we show that previous studies have shown that different kinds of material, namely clitics, emphatic subjects, and negation can also be found between the auxiliary verb and its non-finite domain. In our view, this can only be accounted for if we assume that a gap has been generated by the disharmonic repairing strategy shown in this section.

5. ON THE ABSENCE OF ADJACENCY BETWEEN THE AUXILIARY AND NON-FINITE DOMAINS

In this section, we will describe certain contexts where the adjacency between the auxiliary and the main verb can be broken. Complex predicates are structures that occur in many languages and are of various types (lexical, morphological and syntactic complex predicates). Romance languages have what has been considered Syntactic Complex Predicates (RSCPs) in the form of [V+V]: restructuring, analytic tenses, and *faire*+Infinitive (FI) causatives. Complex predicates include those configurations whereby verb groups behave as a single locality domain. For example, in *restructuring*, as seen in (42), whereby two clauses behave like one with respect to clitic placement when the upper verb is either a modal, an aspectual or a motion verb and the complement is non-finite (see Rizzi 1982; Wurmbrand 2001; Cinque 2004), we have a ‘complex predicate’. In these sentences, the object clitic appears to the left of the auxiliary, the so-

called *clitic climbing* (42), which is obligatory in periphrastic tenses in languages such as European Portuguese (43) (besides certain Italian dialects and French²⁰):

- (42) *La volevo chiamare ieri.* (Italian)
 her.CL wanted call.INF yesterday
 ‘Yesterday I wanted to call her up’
- (43) *O João não me tinha visto.* (European Portuguese)
 theJoão not me had seen
 ‘João had not seen me.’

Cyrino (2010) argues that Brazilian Portuguese, although usually considered a Romance language, has lost RSCPs.²¹ The author supports this claim by showing that in BP some intervening elements, such as clitics, emphatic subjects and negation are possible in the [AUX-V] structure, thus ‘breaking’ the contiguity of the complex predicate.

In fact, Galves, Moraes & Ribeiro (2005) observe that clitics are always placed between the auxiliary and the main verb in BP. By comparing the original Brazilian version of Paulo Coelho’s novel *O Alquimista* to its European edited version published in Portugal, they show that there is a significant difference between the two texts in relation to clitic placement in verbal clusters.

They point out that in some data, it seems that the difference between BP and EP only has to do with hyphenation, as in example (44):

- (44) a. *E tinham **se** entendido* perfeitamente. (BP)
 and had CL.REFL understood perfectly
- b. *E tinham-**se** entendido* perfeitamente. (EP)
 and had-CL.REFL understood perfectly
 ‘And they had understood each other perfectly.’ (example (15) in Galves, Moraes & Ribeiro, 2005: 148)

However, since in Brazilian orthography the hyphen is used in enclisis in many other cases, especially when the clitic is postverbal (as in some enclisis examples the authors find), the data in (44) indicates that there is proclisis to the main verb *entendido* ‘understood’. The authors also provide other examples as below:

- (45) a. *E você está **me** guiando* em silêncio... (BP)
 and you are me.CL leading in silence
- b. *O senhor está-**me** a guiar* em silêncio... (EP)
 the sir is- me.CL to lead in silence
 ‘You are leading me in silence ...’ (example (16) in Galves, Moraes & Ribeiro, 2005: 149)

In the presence of an attractor for proclisis (subordinators as *como* ‘as’, or quantifiers expressions as *cada vez mais* ‘more and more’), as in the examples (46)–(47), in BP crucially, the clitic does not move from its proclitic position to the main verb:

²⁰ There are some Romance varieties where *clitic climbing* is not found. Besides French, there are also varieties such as Piedmontese and Friulian, in which clitics remain enclitic to the lower infinitive in the typical clitic-climbing configuration. In some of these varieties, the clitic is enclitic to the past participle in analytic tenses. See Roberts (2010 pp. 233–4 note 48), for examples and references.

²¹ Cyrino (2010) also analyses the loss of restructuring and *Faire* Infinitive causatives in BP, as being a consequence of a loss of complex predicates in the language.

- (46) a. Como *tinha se* *comportado* de maneira correta... (BP)
 as had CL.REFL behaved of-the manner correct
 b. Como *se* *tinha comportado* de maneira correcta... (EP)
 as CL.REFL had behaved of-the manner correct
 ‘As (they) had behaved in the right manner’ (example (17) in Galves, Moraes & Ribeiro, 2005: 149)
- (47) a. Cada vez mais a Lenda Pessoal *vai se* *tornando* a
 each time more the legend personal go CL.REFL becoming the
 verdadeira razão de viver... (BP)
 true reason of live
 b. Cada vez mais a Lenda Pessoal *se* *vai tornando* a
 each time more the legend personal CL.REFL go becoming the
 verdadeira razão de viver... (EP)
 true reason of live
 ‘More and more the Personal Legend is becoming the true reason for living...’
 (example (19) in Galves, Moraes & Ribeiro, 2005: 149)

The same happens when infinitival forms of the second verb are involved, no matter whether there is a restructuring configuration (48) or not (49):

- (48) a. Entretanto, *quero lhe* *pedir* um favor. (BP)
 however want CL.2SG.DAT ask a favor
 b. Entretanto, *quero pedir-te* um favor. (EP)
 however want ask-CL.2SG.DAT a favor
 ‘However, I want to ask you a favor.’ (example (20) in Galves, Moraes & Ribeiro, 2005: 150)
- (49) a. E quando ela *foi me* *mostrar* o local exato... (BP)
 and when she went CL.1SG.DAT show the location exact
 b. E quando ela *me* *foi mostrar* o local exato... (EP)
 and when she CL.1SG.DAT went show the location exact
 ‘And when she was going to show the exact location’ (ex. (23) in Galves, Moraes & Ribeiro, 2005: 150)

Galves, Moraes & Ribeiro adopt for EP the broadly assumed proposal in the literature that the object clitic attaches to Tense/I (cf. Kayne 1991). In BP, however, the clitic does not raise to T/I: they are always proclitic to the main verb. Evidence is given by the fact that adverbs may occur between the auxiliary/modal (which is, supposedly, higher in the structure) and the clitic+V, as seen in the following examples:

- (50) a. não *posso* no momento [*lhe* *dar*]
 not can in-the moment CL.2SG.DAT give
 ‘I can’t at the moment give it to you.’ (ex. (48) in Galves, Moraes & Ribeiro, 2005: 163)
 b. *não *posso lhe* no momento [*dar*]
 not can CL.2SG.DAT in-the moment give
- (51) a. *Estava* sempre [*te* *vendo*]
 was always CL.2SG.ACC seeing
 ‘I was always seeing you.’ (ex. (49) in Galves, Moraes & Ribeiro, 2005: 163)
 b. **Estava te* sempre [*vendo*]
 was CL.2SG.ACC always seeing

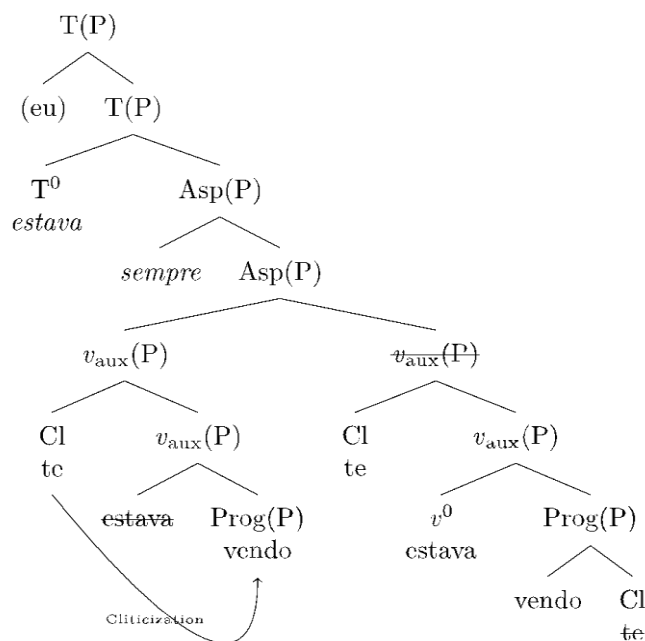
It's well known that BP has lost 3rd person clitics. In written texts (for example, newspapers), however, one can still find them. Interestingly, there are cases of analytic tenses where even a 3rd person clitic – which is not commonly used in oral speech – is found between the auxiliary and the main verb, as in the example (52), a situation which is ungrammatical in other Romance languages:

- (52) ... a violência aconteceu porque a ex-companheira *teria* **o** *provocado*.
 the violence happened because the ex-partner would have him provoked
 '...the violence happened because his ex-partner had provoked him.'²²

The fact that the clitic is always proclitic to the lexical verb in analytic sentences, that is, it may appear between the auxiliary and the main verb, but it is not enclitic to the auxiliary, as seen above, seems to indicate that the main verb does not form a tight complex predicate with the auxiliaries in BP (see also Cyrino 2010, 2013).

Galves, Moraes & Ribeiro (2005) propose that BP clitics are V-clitics, but they do not consider that this placement is the result of the fact that the auxiliary and the main verb move together up to a point, and then the auxiliary moves up, as proposed in the previous section in this paper. In our view, cliticization results from syntactic movement: although initially merged in a complement position within the v-VP complex, clitics move to a higher functional projection to cliticize to it (see Ledgeway; Lombardi 2005). Hence, the clitic placement detected by Galves, Moraes & Ribeiro (2005) is a consequence of the fact that the clitic, from its base-generated position as the complement of the main verb, moves to the main verb, in proclisis. Accordingly, in our view, the structure of (51) would be as the following:

(53)



²² Source: <https://tarobanews.com/noticias/policial/se-ela-nao-tivesse-feito-nada-nao-teria-acontecido-diz-homem-que-agrediu-ex-mulher>

Interestingly, as mentioned above, BP also allows emphatic subjects to occur between the auxiliary and the main non-finite verb and an auxiliary. Cyrino (2010) has some examples found on the internet:

- (54) (example (34) in Cyrino, 2010: 204)
 O dia que você relaxar ele vai começar a ficar preocupado
 the day that you relax he go start to become worried
 e vai **ELE** começar a querer casar, você vai ver...
 and go he start to want marry you go see
 ‘The day you relax he will begin to worry and HE will begin to want to marry, you will see’.

In addition to Cyrino’s (2010) example, we also found other cases where an emphatic subject intervened between AUX-V (55)–(57). The interesting thing about these examples is that they show that there is no strict adjacency between the auxiliary and the verb in BP, since a position for focus is possible in those constructions (Cyrino 2024), as opposed to EP, in which these sentences were considered ungrammatical by some speakers (see Cyrino 2010).

- (55) Eu jamais imaginei o que eu *tinha eu* feito
 I never imagined the what I had I done
 ‘I have never imagined what had I done...’²³
- (56) já que Deus não fez nada eu *vou eu* escolher...
 already that God not did nothing I go I choose
 ‘since God hasn’t done anything, I will I myself choose...’²⁴
- (57) (Pires 2017: 141)
 Ele tá **ele mesmo** caindo dentro d’água
 he is he himself falling inside of water
 ‘He himself is falling inside the water.’

Although Cyrino (2010) attests the presence of intervening emphatic subjects between AUX-V, the author does not consider that this intervention is directly linked to the analyticization process in BP that we propose in this paper. However, notice that this may be considered another piece of evidence of the presence of a gap in Brazilian Portuguese periphrases. If we assume a low left periphery in the clausal spine (see Belletti 2004), an emphatic focalized subject is possible in the gap between the auxiliary verb and the main verb, because at the point where the focused subject is merged, the complex AUX+V is in the aspectual field.²⁵ After that, the auxiliary verb moves separately, as seen in the simplified structure in (58) for the sentences in (55) and (57):

²³ Source: <https://paiquerefmnews.com.br/noticia/pela-porta-da-cozinha-volta-ao-ar-apos-35-anos>

²⁴ Source: <https://ms-my.facebook.com/AmordeDeusofcc/videos>

²⁵ In fact, it has been argued in the literature that FocP (and TopP) in the low left periphery is merged above AspP in some languages (see for example Ouwayda & Shlonsky 2016 and Jarrah & Abusalim 2021). Another piece of evidence that the focused subject is merged above the aspectual field in Brazilian Portuguese comes from the possibility of (i). In this sentence, the emphatic subject occurs between the auxiliary and the aspectual verb and, crucially, above the low adverbs *cedo* ‘early’ and *à toa* ‘for nothing’.

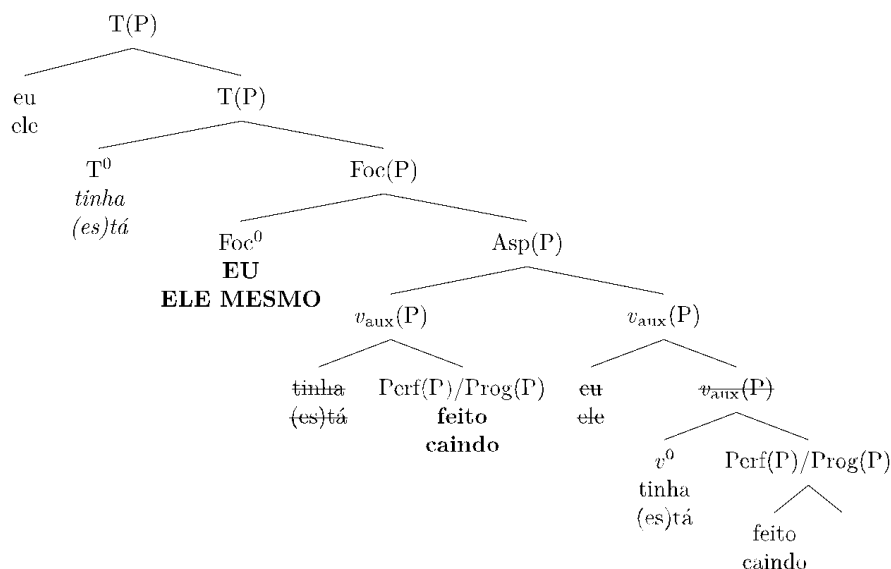
(i) a. Eu [_T tinha [_{FocP} EU [_{Asp} <tinha> dormido cedo [_{VP} <tinha dormido>]]]]

Lit. ‘I had I slept early.’

b. Ele [_T está [_{FocP} ELE MESMO [_{Asp} caindo [_{VP} à toa.]]]

Lit. ‘He is he himself falling for nothing.’

(58)



In sum, these studies bring support to the idea that analyticization has caused a divide between two heights for V-movement in BP: auxiliary verbs continue to move up to T, whereas non-finite verbal forms are left behind at a lower (aspectual) head. The result is that elements related to the lower (thematic) predicate head, such as clitics, may appear adjacent to it. Additionally, focused elements, such as emphatic subjects, may appear, perhaps in a low focus position in the vP left periphery²⁶.

Finally, another interesting evidence that BP has an “open” slot in analytic tenses is the possibility of negation to fill it in, as seen in (59). Cyrino (2010) had already mentioned this as evidence for the loss of complex predicates in BP, and, more recently, Cyrino (2024) has analyzed such constructions as instances of a new kind of negation in the language, not found in other Romance languages.

- (59) a. antes eu não via a tv aberta e agora vou **não** ver a tv digital aberta.
Before I not saw the tv open and now go not see the tv digital open
'Before, I didn't see open tv and now I'm not going to see the open digital tv.'²⁷
- b. minha conexão é discada e eu *estou* **não** *trabalhando* com meu servidor.
my connection is dialed and I am not working with my server
'My connection is dialed and I am not working with my server.'²⁸

²⁶ One may observe that analyticization also happened in other Romance languages, e.g. French, although it has not triggered clitic and emphatic elements interveniency between auxiliary and lexical verbs. Indeed, this suggests that analyticization is not the whole story: it interacts with other properties of Brazilian Portuguese, for example, generalized proclisis of first and second-person clitics to the main verb due to some prosodic properties (Galves; Abaurre, 2002). However, in the absence of a gap between auxiliary and lexical verbs, we would expect proclisis to the auxiliary verbs, which is not attested. As for emphatic elements, we assume that Brazilian Portuguese displays a prolific active low left-periphery that hosts dislocated elements with non-neutral interpretation in discourse, as topics and foci (see Lacerda, 2020) and even focus negation (see Cyrino, 2024). The working hypothesis, then, is that analyticization in BP made it possible for these elements to occur in the middle-field. The prolific use of this gap is a consequence of the extreme extent state of analyticization in comparison to other Romance languages.

²⁷ Source: <http://tvdigitalbr.wordpress.com/2007/11/30/de-zero-a-dez/>

²⁸ Source: <http://xoops.eti.br/newbb+viewpost.uid+2077.htm>

- c. eu posso almoçar mais tarde, *tenho **não** feito* as refeições estes dias.
 I can lunch more late have not done the meals these days
 'I can have lunch later, (I) have not had my meals these days.'²⁹

Cyrino (2024) argues that his kind of negation is not sentential – this new use of *não*, in bold below, can co-occur with sentential negation, as seen in (60):

- (60) Eu *não* vou **não** olhar o problema como muitos deputados fazem...
 I not go not look the problem as many congressmen do
 Lit. 'I will not not look at the problem as many congressmen do'³⁰

This new use of *não* involves modification (61), contrast (62) and emphasis (63):

- (61) Tenho tentado ... fingir que vai continuar tudo mesmo,
 have tried pretend that go continue everything same
 ignorar o que está por vir. *Tenho **não** vivido* todo esse tempo.
 ignore the what is to come have not lived all this time
 '(I) have tried... to pretend that everything is going to stay the same, ignore what is to come. (I) have not lived all this time.'³¹
- (62) Do momento em que me alistei, o fiz para parar tais coisas,
 of-the moment in which me enlisted it did to stop such things
 e aqui *estou **não** fazendo* nada, escolhendo não fazer nada.
 and here am not doing anything choosing not do anything
 'From the moment that I enlisted myself, I did it to stop those things, and here I am not doing anything, choosing not to do anything.'³²
- (63) ele está fazendo o que *tinha **não** feito* antes
 he is doing the what had not done before
 'He is doing what he had not done before.'³³

In (61), *não* seems to be used in order to qualify/modify the kind of life the speaker has nowadays. In (62), *não* is used to contrast: the speaker had enlisted to do things that would make a difference, but now s/he sees him/herself not doing them. In (63) the speaker seems to stress/emphasise a new behavior of someone.

These data show that the possibility of an intervening negative marker lends further support for our proposal whereby the auxiliary moves further than the lexical verb in BP. If, along with Cyrino (2024), we assume that BP allows *não* to convey focus negation, as in (59)-(63), we can explain why this type of negation is possible in the language, since the detachment of the auxiliary verb from the main verb leaves the negation marker in Foc position, intervening between both verbs³⁴. Accordingly, sentences as (61) would have the (simplified) structures below:

²⁹ Source: <https://www.contabeis.com.br/forum/departamento-pessoal-e-rh/12844/ajuda-de-custo/>

³⁰ Source: <https://paraiba.com.br/2021/07/22/estou-a-disposicao-de-joao-azevedo-para-ajuda-lo-na-sua-reeleicao-afirma-julian-lemos/>

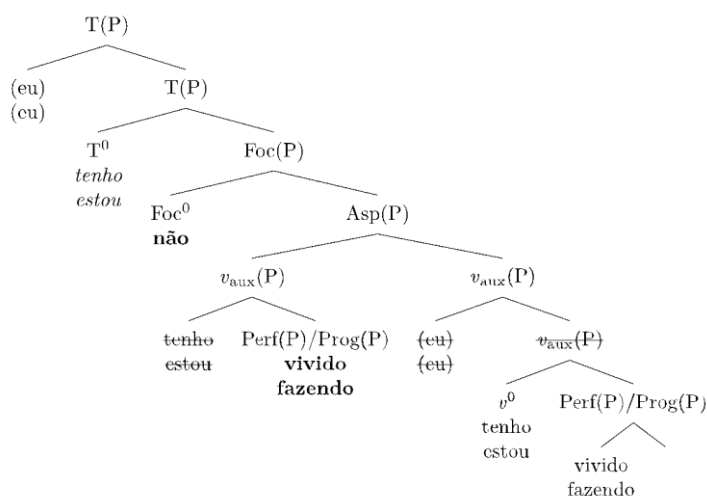
³¹ Source: <https://saidomeurefrao.wordpress.com/>

³² Source: <https://icarabe.org/poli%ca-e-sociedade/o-coracao-das-trevas-de-tel-aviv-Hebron>

³³ Source: <http://www.notariado.org.br/blog/registral/nome-familiar-do-padrasto-e-o-direito-sucessorio>

³⁴ The same piece of evidence provided in footnote 23 can be used to support the position of *não* above Asp, as proved by the grammaticality of the word order in (i), where the low adverbs *cedo* 'early' and *bem* 'well' appear below the aspectual verb:

(64)



Assuming that in BP auxiliaries and their non-finite verb complement must leave vP together, but the former ends up in the Aspect zone, whereas auxiliaries are in the Tense zone, explains why the intervention of negation is possible in the language (as opposed to other Romance languages).

Together, the possibility of intervening adverbs, fronting, clitics, emphatic subjects, negation support our proposal in this paper. The existence of a syntactic gap between the auxiliary and its non-finite lexical verb allows the insertion of elements.

CONCLUSION

In this paper, we have explored the syntax of analytic tenses in Brazilian Portuguese. We have shown that the complex [AUX+V] is not a single constituent since it allows the intervention of some elements. This fact led us to propose that the auxiliary and the main verb, although merged together, do not keep that structure along the derivation. In other words, Brazilian Portuguese has lost lexical verb movement to a high projection, in the case of analytic tenses, the auxiliary is the only verb to move higher than Asp to check its temporal features.

Several pieces of evidence were presented in order to show the presence of a gap between the auxiliary and the main verb in analytic tenses, supporting the case made in this paper. We have seen that as a result of the change in verb movement in BP, whereby only auxiliaries move up to T, several elements may appear in the slot between the auxiliary and its complement: adverbs, clitics, emphatic subjects, negation. Although this intervention has been observed in previous unrelated studies, our formal analysis achieves a unified understanding of this phenomena, providing a welcome theoretical generalization. Incidentally, there has been no attempt in the previous literature to explain these different phenomena as the result of a single (new) structure for BP verbal periphrases. Therefore, we intend our analysis to be a contribution to the studies on the syntax of verbal periphrases. Finally, our study opens possibilities for further

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- (i) a. Eu tenho não dormido cedo.
 Intended 'I had not slept early'
 b. Eu estou não fazendo bem a lição
 Intended 'I have not been doing well the task.'

investigation on analyticization processes and their consequences for the presence of verb movement in other Romance languages.

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