

UNIVERSIDADE ESTADUAL DE CAMPINAS Instituto de Estudos da Linguagem

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THE PRESENT TENSE ANALYTICISATION PROCESS IN BRAZILIAN PORTUGUESE: A DIACHRONIC APPROACH

O PROCESSO DE ANALITICIZAÇÃO DO TEMPO PRESENTE NO PORTUGUÊS BRASILEIRO: UMA ABORDAGEM DIACRÔNICA

Paulo Angelo de Araujo Adriano

The present tense analyticisation process in Brazilian Portuguese: a diachronic approach

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Abstract

This dissertation investigates the shift from a verbal system with synthetic to analytic tendencies that occurred in Brazilian Portuguese (BP) between the 18th and 21st centuries. Anchored in the most recent model of Generative Grammar, the Minimalist Program, more specifically, the present dissertation examines the analyticisation process of the present Tense in BP. To conduct the research, this study created a morphologically annotated corpus of comedy plays from the 18th to the 21st centuries, which are now part of the digital platform of Corpus Tycho Brahe – Unicamp. The present analysis shows that until the end of the 19th century, the synthetic present in BP conveyed several readings, among which the reading of present Tense per se, that is, of concomitance in relation to speech. Differently, after the end of the 19th century, temporal reading ceased to be used by BP speakers via the synthetic present forms when the analytic form estar.PRS + gerund, always present in the system, became the preferred form to convey Tense per se, reflecting an analytic tendency for the present Tense. In light of recent developments of the Minimalist Program and assuming an ordered hierarchy of adverbs, this dissertation proposes that lexical verbs in the synthetic present Tense moved to the Tense zone by the end of the 19th century, as did the auxiliary estar of the analytic form estar.PRS + gerund. After this period, however, some acting force, viz. linguistic contact or principles of economics, triggered the preference for the analytical form to convey present Tense per se, restricting temporal notions to just auxiliaries. Anchored in the Parameter Hierarchy approach, this dissertation argues that the change from a system with a synthetic tendency to a system with an analytic tendency for the present Tense was a parametric change from meso- to microparameter: The functional projection T, which previously established relationship with any finite verbal class, was restricted to only auxiliary verbs, becoming inert concerning lexical verbs, which no longer trigger temporal notions, but only aspectual ones. Presenting data from other Tenses, this thesis is not restricted to just the analyticisation of the present Tense and argues that the change illustrated in this case study is also attested in other Tenses, which reflects a generalised analyticisation process in BP.

Keywords: verb analyticisation; auxiliary verb constructions; verb movement; parametric change

Resumo

Esta tese investiga a mudança de um sistema verbal com tendências sintéticas a analíticas ocorrida no português brasileiro (PB) entre os séculos 18 e 21. Ancorado no modelo mais recente da Gramática Gerativa, o Programa Minimalista, mais especificamente, a presente tese examina o processo de analiticização do Tempo presente no PB. Para conduzir a pesquisa, este estudo criou um corpus morfologicamente anotado de peças teatrais de comédia dos séculos 18 ao 21, que passam a fazer parte ineditamente da plataforma digital do Corpus Tycho Brahe – Unicamp. A presente análise mostra que até o fim do século 19 o presente sintético no PB veiculava diversas leituras, dentre as quais a leitura de Tempo presente per se, isto é, de concomitância em relação à fala. Diferentemente, após o fim do século 19, a leitura temporal deixou de ser usada pelos falantes de PB, quando a forma analítica estar.PRS + gerúndio, sempre presente no sistema, passou a ser a forma preferida para veicular Tempo per se, refletindo uma tendência analítica para o Tempo presente. À luz de desdobramentos recentes do Programa Minimalista e assumindo uma hierarquia ordenada de advérbios, esta tese propõe que verbos lexicais no presente sintético se moviam para a zona de Tempo até o fim do século 19, assim como o auxiliar estar da forma analítica estar. PRS + gerúndio. Após esse período, entretanto, alguma força atuante, viz. contato linguístico ou princípios de economia, desencadeou a preferência pela forma analítica para veicular Tempo presente per se, restringindo noções temporais a apenas auxiliares. Ancorada na abordagem de Hierarquia de Parâmetros, esta tese defende que a mudança de um sistema com tendências sintéticas a um sistema com tendências analíticas para o Tempo presente foi uma mudança paramétrica de meso- a microparâmetro, em que a projeção funcional T, que antes estabelecia relação com qualquer classe verbal finita, ficou restrita a apenas verbos auxiliares, tornando-se inerte em relação aos verbos lexicais, que não mais disparam noções temporais, mas apenas aspectuais. Apresentando dados de outros Tempos verbais, esta tese não fica restrita a apenas a analiticização do Tempo presente e defende que a mudança ilustrada com este estudo de caso também é atestada em outros Tempos, o que reflete um processo de analiticização generalizado no PB.

Palavras-chave: analiticização verbal; construções verbais com auxiliares; movimento do verbo; mudança paramétrica

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List of Abbreviations

- = cliticised to
- * ungrammatical form or usage
- ? dubious form or usage
- 1 first person
- 2 second person
- 3 third person accusative
- ACC accusat Adv adverb
- AP A partilha
- Aux auxiliary
- BP Brazilian Portuguese
- CaT Catalan CH Chinese
- C_{HL} Computational system of Human Language
- CL clitic
- CM Caiu o ministério
- COND conditional copular verb
- C(P) complementiser (phrase)
- DAT dative
- D(P) determiner (phrase)
- EN English
- ENUBT Eles não usam black-tie EP European Portuguese
- F feminine
- FSB Fulana, Sicrana e Beltrana
- FE Feature Economy FF Formal Feature Foc(P) Focus (Phrase)
- FR French future
- G1/2 grammar 1/2
- GAM Guerra do Alecrim e da Manjerona
- GEN genitive GER gerund
- H (functional) head
- $\pm H$ $\pm human$
- IG Input Generalisation

IMP imperative IND indicative INF infinitive

I(P) Inflectional (Phrase)

IPFV imperfective JP Japanese

LA labeling algorithm

LCA Linear Correspondence Axiom

LD long distance LOC locative M masculine

MMEUP Minha mãe é uma peça MMM Maximise Minimal Means MP Minimalist Programa

NEUT neuter NOM nominative N(P) noun (phrase) OCS Onde canta o sabiá

ODF O demônio familiar
OJPR O juiz de paz na roça

ON O noviço OT O tribofe

OVS object verb subject order PH Parameter Hierarchy

PHPB Para a História do Português Brasileiro corpus

PI Paradigmatic Instantiation

PL plural

PLD Primary Linguistic Data

PLPF plus-perfect

P(P) prepositional (phrase) P&P Principles and Parameters

PREF preffix
PRS present
PST past
PTCP participle

R representation

S string
SBJV subjunctive
SG singular
SP Spanish

SOV subject object verb order SVO subject verb object order TAM Tense, Aspect, Mood TBC Tycho Brahe Corpus T(P) tense (phrase)

TV theme vowel

UG Universal Grammar

VL Viola de Lereno

V(P) verb (phrase)

VSO verb subject object order

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Introduction

Contemporary Brazilian Portuguese (BP) has many analytic structures, that is, many linguistic properties realised in separate words that in other languages may be realised by inflections (cf. Haspelmath & Michaelis 2017: 6). For instance, different researchers showed that present-day BP displays an analytic tendency in the verbal domain (cf. Lobato 1975, Longo & Campos 2002, Lunguinho 2006, 2011). Hence, instead of using a single lexical item to convey Mood, Tense, and Aspect properties, in BP these same properties are conveyed by structures headed by auxiliary verbs. In this sense, some authors claim that BP is in an advanced state of analyticisation (Reintges & Cyrino 2016: 352–3, 2018: 181).

This preference for analytic forms instead of synthetic ones has been given little attention under the diachronic point of view, that is, the *current* state of BP is known but it is not clear whether it was triggered by a previous change or if it has been continuous, lasting since BP came to be (the same applies to European Portuguese, a language that also displays different analytic forms to convey some temporal notions, cf. Lopes & Oliveira 1995). At the same time, one lacks knowledge on the history of this system, which is more analytic with respect to the temporal domain. As far as I know, there are few formal studies having dwelt on this preference (Cyrino 2013, Reintges & Cyrino 2018, 2016).

Under the Generative Grammar approach, Reintges & Cyrino (2016: 349, 2018: 183), for instance, suggest that the analyticisation process in languages triggers loss of verb movement because there is either an auxiliary or a verb particle in the T (Tense) head licensing Tense properties (whether because it was base-merged or because it moved to that position). According to them, the presence of this item in T blocks the movement of the finite lexical verb to that position, giving rise to an analytic construction.

In present-day BP, the present Tense is highly analytic. To convey simultaneity with speech, speakers use the analytic form headed by the auxiliary *estar* 'be' < STARE in the present, followed by the gerund, instead of the synthetic present. The following example illustrates this preference: Planning to walk their dog, a 21st-century BP speaker, upon hearing a noise, would ask (1-a), but not (1-b).

(1) a. Está chovendo?

be.PRS rain.GER

'Is it raining?'

b. *Chove?

rain.PRS

'Is it raining?'

In the 18th and at the beginning of the 19th century, however, Brazilians would probably say (1-b), instead of (1-a). This contrast seemed evident when I observed data from these historical periods: In (2)–(6), one can see that the synthetic present Tense was used by past speakers in the same contexts in which, nowadays, BP speakers use

the analytic forms (represented in the parentheses). For instance, whilst in 1737 the eventuality of a house burning at the time of speech was conveyed by the synthetic form queima 'burn.PRS', as in (2), nowadays it must be conveyed through the analytic form está queimando 'be.PRS burn.GER'.

(2) SEMICÚPIO. Abram a porta, que se **queima** a casa: fogo, fogo. open.IMP the door that CL burn.PRS the house fire fire FAGUNDES. Ai, que há fogo na casa! ouch that have.PRS fire on-the house

'SEMICÚPIO. Open the door, for the house is burning.

FAGUNDES. Ouch, there is fire in the house.' (cf. ... que a casa **está queimando** 'that the house be.PRS burn.GER')

(1737/18 – Guerra do Alecrim e da Manjerona)

(3) DOM QUIXOTE. Dizei-me, que **fazeis** aí, e que monte é este? tell.IMP=me what do.PRS there and that hill be.PRS this 'DOM QUIXOTE. Tell me, what are you doing there, and what mountain is this?' (cf. ... que **está fazendo** aí 'what be.PRS do.GER there')

(1733/18 – D. Quixote e Sancho Pança)

(4) MANOEL ANDRÉ. Isto é uma injustiça. this be.PRS a injustice

 ${\it JUIZ.\ Ainda\ fala?}$

still talk.PRS

'MANOEL ANDRÉ. That's an injustice.

JUIZ. Are you still speaking?' (cf. ... está falando? 'be.PRS talk.GER')

(1833/19 – O Juiz de Paz na Roça)

(5) AMBROSIO. Não vejo nada. **Batem** nas portas, o que farei? (...) not see.PRS nothing knock.PRS on-the doors the what do.FUT

Estas portas não tardarão a ceder: salvai-me, ou mato-te
these doors not late.FUT to fall.INF save.IMP=CL.1SG or kill.IMP=CL.2SG
'AMBROSIO. I can't see anything. They are knocking on the doors, what will I do?
(...) These doors won't take long to sag: Save me, or I'll kill you.' (cf. ... eles **estão**batendo na porta 'they be.PRS knock.GER on the door')

 $(1845/19 - O\ Noviço)$

(6) JUCA. Mana, mamãe **pergunta** por você.
sister mom ask.PRS for you
'JUCA. Sis, mom is asking for you.' (cf. Mana, mamãe **tá perguntando** por você.)
(1845/19 - O Noviço)

This PhD dissertation seeks to contribute to this discussion by investigating what linguistic changes occurred in the gap between the preference for (1-a) and (1-b). It is intrinsic to the word *process* (in 'analyticisation *process*') a lasting action, or the continuous and lasting realisation of some activity; continuation, from the Latin PROCESS 'progression, in progress, advance'. In this sense, any mention of the *analiticisation process* is embedded

with historical and diachronic flavours, evoking the meaning of process. In this dissertation, I looked for answers to understand this continuous and lasting preference for analytic forms instead of synthetic ones in general and, more specifically, regarding the preference for the present Tense analytic construction over the synthetic equivalent.

I also redressed the lack of a formal account for this continuous and lasting preference for analytic forms. Adopting Chomsky's (1966) notion of language as a biologic system, innate to the human species, the main aim here was to investigate what structural changes and grammatical motivations are involved in the referred process. Hence, I have two main aims with this dissertation: (i) Understand when BP speakers started to prefer (1-a) over (1-b), and (ii) Which syntactic changes occurred in this process. To achieve this aim and redress the two aspects mentioned before on the analyticisation process in BP, the dissertation was organised as follows.

Chapter 1, Diachronic Change Meets Explanatory Adequacy: Theoretical Background, presents the basic theoretical ingredients that I adopted to deal with the phenomenon explored. Given that "it is the viewpoint adopted which creates the object" (Saussure 1916: 8), I highlighted the model I adopted to achieve my goals. Under the formal point of view, I presented the Generative Grammar approach to language (Chomsky 1957, 1965, 1981, 1995b, 2005, 2015). Under the diachronic point of view, I offered the approach that seems to be the most accurate regarding how Faculty of Language is seen as the best system meeting explanatory adequacy – the Parameter Hierarchy Approach (Roberts 2012, Biberauer & Roberts 2012, Biberauer 2019a, Roberts 2019a).

In Chapter 2, **Methodology**, I present the *corpus* investigated that seemed best to depict the internal grammar of speakers in the diachrony. Additionally, it will be shown how the *corpus* was built, from its edition to its launching on *Corpus Tycho Brahe* platform, as well as how I conducted the automatic searches that composed the data.

Chapter 3, **The Synthetic Present Tense in BP over Time**, looks at some properties of the BP synthetic present Tense both in synchrony and diachrony. I show that this Tense triggered numerous interpretations over time, including its prototypical temporal one in (1-a), (3)–(6), but the synthetic present Tense lost its temporal interpretation around the end of the 19th century.

In Chapter 4, **The Analytic (Present) Tense in BP over Time**, I turn to the Brazilian Portuguese verbal paradigm, demonstrating it is highly analytic. Then, some morphological, semantic, and syntactic properties of the *estar* + gerund construction are presented. Furthermore, I show how the analytic present Tense analytic construction has behaved over time in BP. Although the focus of this dissertation is the present analytic, I also examined in this chapter other analytic constructions to check whether this analytic tendency regards a general pattern or is restricted to the present Tense.

Finally, in From Synthetic to Analytic: a Parameter Hierarchy Approach, (Chapter 5), I account for the change from the synthetic to analytic present Tense. Adopting the Parameter Hierarchy approach, I propose that the analyticisation process in BP is a meso- to microparametric change, which led BP children to narrow the class of verbs that moved to the Tense head to only auxiliary verbs.

1 Diachronic Change Meets Explanatory Adequacy: Theoretical Background

Introduction

It is part of the scientific method to rethink, change, and abdicate proposals that no longer explain the object in focus in the best way. According to the Hungarian philosopher Lakatos (1970: 135–6), the heuristics found in scientific investigation regard the constant development of explanatory models to simulate reality. As pointed out by the philosopher, one case that illustrates science well is Isaac Newton's career. The physicist changed several times the model of the solar system. He first proposed a planetary system with fixed points that represented the sun and one single planet. Afterwards, this model has modified: Now not only the sun but also the planet spin around their common centre of gravity. Including more planets, the model was again modified with the proposal that other planets also were subjected to a heliocentric force. After some changes, Newton claimed that the sun and planets were not points but spheres, and finally, that these spheres were irregular. These changes offered different models that closely capture the very close reality regarding planet systems. Other cases that illustrate Lakato's claim are also in Astronomy and Biology. Not a very long time ago, after the International Astronomy Union Resolution in 2006, the solar system's last planet, Pluto, was no longer considered to be one, given that the definition of the planet had changed. Funqi, before molecular methods, were part of the *Plantae* Kingdom; however, this changed after biologists reanalysed the *Plantae* kingdom and noticed that fungi does not precisely fit that category, promoting them to their own kingdom (Martin 1955). From these cases, it is clear that rethinking proposals is what makes science real science.

Within the field of Linguistics, the Generative Grammar approach has also changed over time. First, it appeared as a reaction to American Structuralism, a theoretical school that described indigenous American languages (Sapir 1921, Bloomfield 1933, Harris 1951). Because this school was highly descriptive, offering generalisations based on inductive rationale, it was massively criticised by Noam Chomsky. In the early days of formal linguistics, Chomsky (1957) suggested a new way of approaching linguistics as a serious science. To achieve the status of its scientific pairs, linguistic theory should offer a model that generates everything that could be produced by a speaker, that is, every grammatical sentence. This model, as proposed by Chomsky at the time, was based on rewrite rules from which some optional and mandatory transformations would apply. From there, aspects of the human mind entered the background of Generative Grammar because Chomsky (1965) focused on answering how children acquire language in a fast way amidst linguistic

chaos – what was known as Plato's Problem. At this point, the notion of Language Faculty arises in Descartes's (1647: 444) sense of "nothing more or less than a potentiality": Every human being is genetically equipped with the potential to acquire a language.

Under the influence of language universals (Greenberg 1963), Generative Grammar gave birth to its most prominent phase: The Government and Binding theory (Chomsky 1981). Here, dealing with Plato's Problem, Chomsky postulated that Universal Grammar (UG) was a rich innate component comprised of the similarities and differences amongst languages. The former were known as language Principles, and the latter as Parameters, both innately encoded. In this sense, children acquired languages successfully because they were born with everything needed to run a language: General principles of how languages work and binary options that needed to be set as YES or NO, according to their linguistic input. In the same vein, one language would differ from another depending on how children set their parameters: Different parameter settings amounted to different languages. Additionally, within a language, when a parameter was set differently from one generation to another, there was a different system, that is, linguistic change. All in all, this Principle and Parameter theory was highly successful because it accounted for linguistic variation, Plato's Problem – language acquisition – and syntactic change.

Another significant change in the theory was triggered by the discussion on how UG would reflect simple laws found in nature. Under the influence of the Galilean method in science, which states that nothing in nature is superfluous, Chomsky (1993) rethinks the very successful previous model: Some tools were not strictly necessary, that is, without them, the system ran without problems; hence, they were abandoned. Finally, the last jolt in the linguistic theory reduced almost everything in UG, electing external factors to play roles in language acquisition. Under this perspective, for instance, the Principles and Parameters theory no longer fits into the model. These changes in Generative Grammar just highlight how scientific this field is. With all of these changes, we could finally take one step further and understand why we have this kind of UG and not something else: The less UG is attributed to language, the more we can explain it in evolutionary terms.

At the same pace, diachronic models have permanently changed as the core syntactic theory model changed. In the sixty-five years since the first Generative Grammar publications, we observed various modifications in how linguistic change has been addressed. Under Transformational Generative Grammar (Chomsky 1957, 1964), researchers considered language change as the reordering of rewrite rules (cf. Klima 1964). Afterwards, children gained a major role in linguistic change as it was seen as a matter of abduction (Lightfoot 1979). After the Principles and Parameter theory (Chomsky 1981), language change was cast as a reconfiguration of parameter settings: If children abductively entertain a parameter setting that is slightly different from their parents', one observes a linguistic change. The latest model for linguistic change under the Minimalist Program (Chomsky 1993) was put forth by the "Rethinking Comparative Syntax" (ReCoS) research group, which gave rise to the Parameter Hierarchy approach (Roberts 2012, Biberauer & Roberts 2012, 2015a,b, 2016, Biberauer 2017, Roberts 2019a). To achieve explanatory adequacy, at the stage we are, where UG is not richly structured, Parameter Hierarchy seems to be the most accurate model for linguistic change.

In this chapter, I will present the theoretical developments within Generative Grammar that directly shaped how researchers dealt with diachronic change. This journey seems essential to highlight the accuracy of the Parameter Hierarchy approach I adopted in this dissertation. In Section 1.1, I present the first stage of Generative Grammar and how diachronic linguistics was then conceived. Afterwards, in Section 1.2, we will look at the most prominent phase of linguistic theory, along with diachronic models that adopted this approach. Finally, in Section 1.3, I introduce the last stage of Generative Grammar, which accounts for the explanatory adequacy by minimising the role of UG in language. Additionally, the Parameter Hierarchy approach as the most prominent one to deal with diachronic change under Minimalist grounds is presented.

1.1 The Emergence of a Linguistic Theory

At the beginning of the 19th century, there was a significant movement to describe extinct indigenous American languages. This movement, influenced by Saussurian European Structuralism, was known as American Structuralism with pivot names such as Leonard Bloomfield, Edward Sapir, and Benjamin Whorf. The premise of this new school of thought was to analyse each language on its own, without interference from previous linguistic knowledge. This was an issue because, traditionally, languages were analysed with Latin grammar as a reference, describing them with a particular property even if the language did not display it only to fill them into the pattern of Latin (Bloomfield 1933: 20). To avoid this kind of interference, the idea was to analyse a set of data and from them to achieve the Discovery Procedure, that is, by analysing one datum, and then another, and so on, linguists could offer a generalization about that language. This kind of reasoning, where an inference is achieved from isolated cases, is known as inductive reasoning, clearly assumed by Bloomfield (1933: 20) when he claims that "The only useful generalization about language are inductive generalizations".

Supervised by Zellig Harris, an American Structuralist, Chomsky (1957) suggested that the way Linguistics dealt with language was incompatible with the scientific method. His main argument was that generalisations achieved by Structuralists did not explain the universal set of (possible) languages. According to Chomsky, the role of linguistic theory was to offer a method to build a language's grammar from a *corpus* of sentences. In his words, "We can determine the adequacy of a linguistic theory by developing rigorously and precisely the form of grammar corresponding to the set of levels contained within this theory, and then investigating the possibility of constructing simple and revealing grammars of this form for natural languages" (Chomsky 1957: 11). Thus, the object of research for Structuralists, the *corpus*, is a result of the speaker's knowledge. The main task of linguistic theory was making this knowledge explicit.

The Generative Grammar field starts by answering how to explain the native speaker's knowledge of their language, that is, "what sort of grammar is necessary to generate all the sequences of morphemes (or words) that constitute grammatical English sentences, and only these." (Chomsky 1957: 19).

After showing the flaw of some available models of language – Markovian system, and

the phrase structure –, Chomsky argued that the model of grammar native speakers have is a grammar of type $[\Sigma, F]$ that generates sentences from Phrase Structure rules in the fashion of (7).

$$\begin{array}{ccc} \Sigma \colon \mathrm{Sentence} & & \\ \mathrm{Sentence} & \rightarrow \mathrm{NP} + \mathrm{VP} \\ (7) & \mathrm{NP} & \rightarrow \mathrm{T} + \mathrm{N} \\ \mathrm{VP} & \rightarrow \mathrm{Verb} + \mathrm{NP} \\ \mathrm{T} & \rightarrow \mathrm{the} \end{array}$$

In addition to phrase structure, Chomsky incorporated optional and mandatory transformations, a notion developed by Harris (1957), that is, conversions of one string into another that generated a new constituent structure (Chomsky 1957: 44). To derive a sentence like Sincerity is admired by John, Chomsky proposed the optional Passive Transformation that transformed an active sentence into a passive one: When the system found a structural analysis of the kind in (8-a), the transformation (8-b) changed the structure, by adding the auxiliary be, the affix -en, the preposition by, and inverting the object (in position X_4 in the active sentence) with the subject (in position X_1 in the active sentence). In this case, from the derivation step in (9), the passive finds the adequate structure (9) to transform.

(8) Passive Transformation

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a. Structural Analysis: SN<sub>1</sub>-Aux-V-SN<sub>2</sub>
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b. Structural Change:
$$X_1$$
- X_2 - X_3 - X_4 \rightarrow X_4 - X_2 +be+en- X_3 -by- X_1

(9) John+ Aux+ admire+ sincerity
$$SN_1$$
- Aux- V- SN_2 $(X_1$ - X_2 - X_3 - X_4 \to X_4 - X_2 +be+en- X_3 -by- X_1)

When both optional and mandatory transformations were applied, the structure is not completely formed. Chomsky argued that after transformations, structures were sent to morphophonemic levels, so that, admire + en could be rewritten as /admired/, for instance. In this sense, morphology, phonology, and syntax were considered as autonomous but interacting levels, which is a different view from Structuralism which analysed each level independently. Accordingly, grammar had the following format:

Chomsky (1964) took a step further in externalising adequacy expectations that linguistic theory, as any scientific field, should meet. The first level of success regards the adequate description of what is relevant within the object observed. As pointed out by Chomsky, not everything that one observes is significant enough: "The problem of determining what data is valuable and to the point is not an easy one. What is observed is often neither relevant nor significant, and what is relevant and significant is often very difficult to observe, in linguistics no less than in the freshman physics laboratory, or, for that matter, anywhere in science." (Chomsky 1964: 2, Footnote 1). Hence, an adequate linguistic theory is one that merely describes the data well. The following level of success regards the accurate model – in our case the accurate grammar – that explains the intuitive knowledge that generates the sentences in the *corpus*, that is, the answer to what kind of grammar human beings have. Finally, another level of success that any scientific field must achieve is explanatory satisfactoriness, met when the theory demonstrates why a certain model that generates a certain *corpus* is superior to other models. These three levels of success were dubbed as observational, descriptive, and explanatory adequacies, respectively (Chomsky 1964: 29).

At the time, the most adequate grammar that generated every sentence in English was Transformational Grammar (10). Undeniably, this new approach to language also guided diachronic linguistics. Under the Generative point of view, Klima (1964) investigated the English change from whom to who in subject context, such as in whom could she see?, in Period 1, to who could she see?, in Period 2. Adopting Chomsky (1957), the author claimed that three rules generated the sentences in focus: Case Marking, Wh-movement, and Subj-Aux inversion rules, shown respectively below:

- (11) Case Marking $X-V_{transitive}/P$ -pronoun $\rightarrow 1-2-3+case-4$
- (12) Wh Movement $NP-X_1-X_2-Q \rightarrow Q-NP-X_1-X_2$
- (13) Subj-Aux Inversion $Q/NP-NP-AUX-X \rightarrow 1-3-2-4$

Based on that, Klima (1964) argued that different systems generated different diachronic periods. System 1 that generated Period 1 had the rule ordering Case > Wh > Subj-Aux, where Accusative Case was marked first she could see whom, then this -wh was moved to the subject locus, a position that was later inverted with the auxiliary (14). Contrary, System 2 had the rule ordering Wh > Case > Subj-Aux, giving rise to the structure of Period 2 (15). Here, since the wh- had moved to the beginning of the sentence before Case Marking, this transformation simply 'bleeds', that is, no element receives Case marking. In the next step, the auxiliary is inverted with the subject. Hence, the change from Period 1 to 2 is a change from rule ordering, Klima (1964) proposed.

$$\begin{array}{ccc} \text{(14)} & \text{System 1} \\ & \text{she could see whom} > & \text{(Case Marking)} \\ & & \text{whom}_i \text{ she could see } t_i > & \text{(Wh Movement)} \end{array}$$

whom could she see?

(Subj-Aux Inversion)

(15) System 2 who_i she could see t_i > who she could see > who could she see?

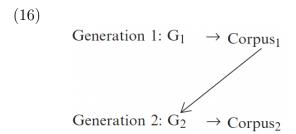
(Wh Movement) (Case Marking bleeding) (Subj-Aux Inversion)

Another proposal born under the Transformational Generative Grammar and that might still influence the field of diachronic research comes from the pen of Lightfoot (1979) (cf. Kiparsky 1968, Traugott 1969, a.o.). The author considered that children are equipped with a generative grammar that will construct their grammar by analysing the relevant input.

Thus, he criticised previous proposals such as in Klima (1964) because there were no restrictions on how a language could change. For example, in Klima's (1964) proposal, every kind of order could be attested, which amounted to saying that every kind of linguistic change could be allowed, which was an undesired result: "If the constraints on grammars are so loose that G1 or G2 can take on an unlimited number of forms, then G1 may differ from G2 in an unlimited number of ways and we have no method of distinguishing possible from impossible changes, which I take to be a central task of any theory of linguistic change" (Lightfoot 1979: 14).

Notwithstanding, Lightfoot's (1979) main contribution was the connection between diachronic change and language acquisition. Children will always acquire a language based on their parents, regardless of the historical period; this acquisitional process, however, is far from perfect: Children do not have direct access to their parent's grammar. According to Niyogi & Berwick (1995: 1), if acquisition were always perfect, in a one-to-one relation to children's parents, "changes within a population would seemingly never occur". Based on Andersen's (1973) work on the acquisition of Russian phonology, Lightfoot proposes that a system changes when a generation of speakers entertains a slightly different grammar from the previous generation's output, where "small differences in output may result from large differences in the grammar, and vice-versa" (Lightfoot 1979: 147). When the output is the same, however, a change can also occur because children might have abducted a different system that generated the same string of input. When this happens, an abductive change occurs (Andersen 1973, Lightfoot 1979).

This abductive rationale was known as the Z-model of linguistic change, as in (16): Generation 1 offers to Generation 2 some input – Corpus 1 – based on their Grammar 1. Generation 2, however, might analyse Corpus 1 and attribute to it a different structure. Hence, through this abductive analysis, Grammar 2 is slightly different from Grammar 1, which generates a Corpus 2 that also differs from the previous one. In this sense, following Roberts (2007: 227), "(A population of) language acquirers converge on a grammatical system which differs in at least one [...] value from the system internalized by the speakers whose linguistic behaviour provides the input to those acquirers.".



1.2 The Emergence of a Rich Universal Grammar

The following and the most successful phase of Generative Grammar was highly influenced by Greenberg's (1963) Universals of Language. The typologist compared thirty languages and found forty-five linguistic universals at syntactic and morphologic levels. They had the format of Given x in a particular language, we always find y (Greenberg 1963: 73). The results from these works in typology led Chomsky (1981) to propose the Universal Grammar – UG –, a theory that offered everything needed to account for the diversity of possible languages – grammars – at the same time that it also constrained the possible grammars according to the input received. This approach was known as Principles and Parameters because every human being was endowed with the general properties of languages, the Principles, and also the different properties of languages, the Parameters, set depending upon the data children were surrounded with. Overall, UG was a "highly structured theory [...] based on a number of fundamental principles that sharply restrict the class of attainable grammars and narrowly constrain their form, but with parameters that have to be fixed by experience" (Chomsky 1981: 3–4).

After showing that every sentence has a position for subjects – a Principle – the contrast between English and Italian regarding the phonological (non-)realisation of the subject in (17) was addressed as a parameter in UG: "We might tentatively adopt the assumption that obligatory presence of subject represents a particular choice for a certain parameter of UG. English and French, for example, make this choice. [...] Other languages might not require that NP is obligatory [...]" (Chomsky 1981: 27–8).

(17) a. ø Piove. b. It rains.

UG was extremely "rich in structure" (Chomsky 1981: 4), which eased the task of children to acquire a language, building a bridge between experience and innate knowledge. This richness of structure was an answer to Plato's Problem, which inquired how we can know so much about language given the limited evidence we have (Chomsky 1986: xxv-xxvi). The grammar proposed by Chomsky to approach Plato's Problem had interacting subsystems (Chomsky 1986: 5): A sub-component where lexical items are stored – the Lexicon –, a universal X-bar template where items are inserted – Deep Structure –, a level for transformation – Surface Structure –, and interpreting levels of sound – Phonological Form – and meaning – Semantic Form.

Combined with these sub-components, UG featured Principles involving sub-theories under the main Government and Binding Theory: The interpretation of arguments – thematic theory –, Case assignment – Case theory –, pronouns interpretation – control theory –, locality conditions – bounding theory –, the relation between a head and categories dependent upon it – government theory –, recoverability of anaphors, pronouns and referential expressions – binding theory (Chomsky 1981: 5–6). With a UG "sufficiently rich in structure" (Chomsky 1981: 4) like this and surrounded by Primary Linguistic Data (PLD), a child could easily acquire a language:

(18) Universal Grammar + Primary Linguistic Data \rightarrow Language

Under the Principles and Parameters model, the language acquisition task was nothing more than "a simple quiz" (Fodor 2001: 734) because children only had to set YES/NO or 1/0 to the template of parameters already pre-specified in UG. For instance, to acquire English, a child had to set 1000001000101 for the parameters below, adapted from Roberts (1997: 273–4):

- (19) a. Is D morphologically realized? Yes: English (the), Swedish (-et). No: Latin.
 - b. If (a) is Yes, is D an affix? Yes: Swedish. No: English
- (20) a. Does the I-system have strong V-features? Yes: French. No: English
 - b. If (a) is Yes, does the highest V-related functional category have strong N-features? Yes: French-type SVO languages. No: VSO languages
 - c. If (a) is No, does AgrO have a strong N-feature? Yes: SOV systems
- (21) Does root C have features attracting V and an XP to its checking domain? Yes: V2 (Germanic languages, apart from English). No: Non-V2.
- (22) a. Is abstract Case morphologically marked? Yes: Latin, German, English. No: Thai, Chinese
 - b. If (a) is Yes, is abstract Case marked on all DPs? Yes: Latin, German. No: English, French.
 - c. If (a) is Yes, is inherent abstract Case morphologically marked? Yes: Latin, German, French. No: English.
- (23) Is there a monomorphemic reflexive? Yes: LD anaphora possible (all non-English Germanic, Italian, Chinese, Japanese, Korean, Polish, Latin, and so on). No: No LD anaphora
- (24) a. Is wh-movement overt? Yes: English, French, Slavic, and so on. No: Chinese, Japanese, Korean, Armenian, and so on
 - b. If (a) is Yes: Can more than one wh-element move overtly to the Specifier of a [+WH] CP? No: English, French. Yes: Slavic
- (25) Is the lowest finite IP a barrier? Yes: English. No: Italian, French.

Unquestionably, the Principles and Parameters theory was a success because not only did it solve several issues regarding the rich knowledge of language children amass in a short period, but also accounted for differences between languages and diachronic change.

Their genotype was structurally well-supplied with Principles of all languages and binary Parameters that were set by experience. By being binary, parameters were set depending upon the linguistic data children are exposed to. For instance, if the data surrounding them is like John ate the cake, instead of John the cake ate, the head parameter is set as initial, in opposition to head final. The second issue that the Principles and Parameters theory accounted for was language typology. Since every child must set their parameters according to the data they are exposed to, one can straightforwardly conceive that languages differ due to the different parameter settings. For instance, English displays a non-null subject compared to Italian because, during language acquisition, English children set 0 to the null-subject parameter, contrary to Italian children, which set it to 1. In the same vein, language change was addressed as a change in parameter settings over time.

Under the Principles and Parameters approach, a language changes because different values are attributed to a parameter over time. In this sense, the approach deals very well with the issue that Lightfoot (1979) highlighted regarding the limitations of change: Changes are predictable and are limited, and one knows how far a change can go in a language, given that the change will have a linguistic consequence in the form the opposite value being set for that given parameter. The intriguing issue, however, was how children set Parameters, that is, what in children's input triggered the change in the parameter value.

Under this discussion, Lightfoot (1991) proposed that children did not set a parameter based on everything they listen to; instead, only part of the input works as a syntactic cue: "the trigger is something less than the total linguistic experience" (Lightfoot 1991: 14). Analysing former models that claimed the relevant structure for children's trigger was in two levels of embedding, such as if Ray was home in the sentence Jay said [that Kay asked [if Ray was home]], a model known as degree-2 learnability, Lightfoot (1991: 26) shows that the natural cue can be learned from the main clause (degree-0 learnability). The main argument was that some local conditions, such as the Subjacency Condition, could be triggered not only by an embedded sentence like (26-a), but also by the matrix sentence (26-b), where some locality restrictions are also applied. Thus, the relevant parameter that triggers Subjacency can be entertained under degree-0 learnability.

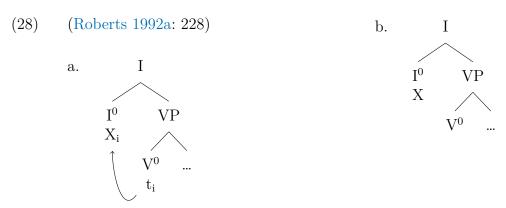
- (26)Voilà une liste des gens à qui on n'apas encore trouvé list of-the people to whom we not=have not yet found quoi envoyer. what send 'Here is a list of people to whom we have not yet found what to send.' (Adapted from Lightfoot 1991: 25) b. combienas-tuvude personnes?
 - how.many have-you seen of people 'How many people did you see?' (Adapted from Lightfoot 1991: 26)

Adopting the idea that grammatical change and language acquisition are connected, as proposed by Lightfoot (1979: §3), if children paid attention to the matrix and not

the embedded clause, one would expect to find evidence that grammatical change would be more prone to happen in this domain. By analysing Old English, Lightfoot (1991) shows this is the case. He suggested that the grammatical word-order change that affected Old English was only possible if children were degree-0 learners, since the content in the embedded domain could have triggered a different change if children were degree-2 learners instead. For example, in Old English, embedded clauses displayed a verb-final property (27-a), whilst matrix clauses mostly followed the verb-second order (27-b). The rare verb-final order in the matrix became less frequent, triggering no evidence of verb-final in matrix children's input. The consequence was that verb-final in embedded clauses decreased drastically from 66% until 1122 to 11% between 1122–1140 (Lightfoot 1991: 65). This change was only possible if children were degree-0 learners, getting evidence from matrix clauses not embedded at any level.

a. þæt he ðone cwelmbæran hlaf aweg bære
'that he the deadly loaf away bear'
'to bear away the deadly loaf'
(Homilies of the Anglo-Saxon Church II, 162.23 from Lightfoot 1991: 61)
b. þa sticode him mon þa eagon ut
then stuck him someone the eyes out
'Then someone stuck his eyes out.'
(Orosius 168.4 from Lightfoot 1991: 61)

Another phenomenon that many researchers under the rich-UG approach have looked into was gramaticalisation, a change where a lexical item becomes a functional item. Analysing the history of Romance future verbs, Roberts (1992a) proposed that the erstwhile auxiliary have behaved like a lexical verb, and in the present day, it is no longer a lexical but a functional verb. This contrast was attributed to their base-inserted position in the Inflectional Phrase or in the thematic field: Being directly inserted in the Inflectional Phrase, a functional position, a verb cannot assign a thematic role. Hence, since grammaticalisation involves a change from a lexical to a functional item, broadly speaking, Roberts (1992a) interpreted this reanalysis process as differences in the position items were inserted, naturally deriving their different behaviours.



The change from (28-a) to (28-b), for instance, was understood as an abductive

change, that is, the surface string is the same, but the structural representation is different: Grammaticalisation was then analysed as the elimination of syntactic movement. The crucial point was why children preferred and chose (28-b) over (28-a). Roberts (1992a: 228) argued that this preference had to do with a *principle of simplicity*, viz. Least Effort Strategy in (29), where children prefer structures with the least number of chains, chains being analysed as the string formed when an element has moved. In this way, the structure creating more chains – via movement – in (28-a) is less preferable than the one with less chains – without movement.

(29) Least Effort Strategy (Roberts 1992a: 228)
Representations assigned to sentences of the input to acquisition should be such that they contain the set of the shortest possible chains (consistent with (a) principles of grammar, (b) other aspects of the trigger experience).

The last example of the Principles and Parameters approach under a diachronic point of view regards different positions of English verbs throughout history, as accounted for by Roberts (2007). In present-day English, some particles, such as negation and adverbs, are in a pre-verbal position with respect to lexical verbs. Differently, French lexical verbs have the opposite pattern, for they are located to the right of these particles. Under a Generative Grammar approach, some have suggested that both negation and adverbs were fixed in the structure, and the surface position of the verb in relation to them was generated by verb movement: Whilst in French the verb moves to inflection, giving rise to a V_ADV pattern, in English, the verb would not move, hence the pattern ADV_V (Emonds 1978, Pollock 1989, Belletti 1990).

- (30) a. John often kisses Mary. b. *John kisses often Mary.
- (31) a. Jean embrace souvent Marie.
 - b. *Jean souvent embrace Marie.

From this difference, a UG parameter for the position of the verb was proposed: Either move verbs to inflection or do not. This way, French children would assign YES to (32), but to English, NO (Roberts 2007: 45). This variational explanation, as mentioned, was also a powerful aspect of the theory because it accounted for language changes as a matter of different parameter-setting values. Whilst English children assign NO to the parameter in (32), this was not the case some centuries ago (Roberts 2007: 45).

(32) Does V move to T in finite clauses? YES: French NO: English

In Early English, however, lexical verbs were located to the left of negation and some adverbs, as the following examples suggest. This amounts to saying that before, English children set YES to the parameter in (32), just like Modern French children. Hence, the change from the system in (33) to (30) was due to a change in the parameter value in (32).

- (33) a. if I gave not this accompt to you 'if I didn't give this account to you'

 (1557: J. Cheke, Letter to Hoby, Roberts 1999: 290)
 - b. The Turkes ... made anone redy a grete ordonnaunce. 'the Turks ... soon prepared a great ordnance.'

(c1482: Kaye, The Delect..., Roberts 1999: 290)

In the previous section, I showed that the Principle and Parameters approach thitherto accounted for many linguistic issues in a decent fashion: The existence of a rich UG containing Principles and Parameters could account for differences in languages as a matter of different parameter values assigned by children. Furthermore, the rapid and systematic language acquisition process was viewed as the consequence of an innate apparatus containing everything children needed to acquire their target language. Finally, language change was the process of an abductive analysis during language acquisition where children, despite listening to the exact string, set a different structure from adults, leading to a change in the value of the associated parameter. Thus, the Principles and Parameters theory not only dealt with the knowledge speakers have with respect to their language but also with different aspects of language, such as diachrony, language acquisition, and language variation.

1.3 The Emergence of a Poor Universal Grammar

Despite the previous model's successful approach, it was not elegant enough. To achieve a higher level of adequacy as proposed by Chomsky in regards to a linguistic theory – more specifically descriptive adequacy – the Government and Binding model had tools which were solely theory-internal, that is, it was superfluous in specific ways. This led Chomsky to reformulate the model in Chomsky (1993), giving rise to the Minimalist Program (MP), whose main idea was to achieve a minimal theory for UG to meet explanatory adequacy. In this way, UG started to be thought of as very poor.

To answer the question about why UG is the way it is, Chomsky (1993) started to rebuild the architecture of language. His moves were in the direction of eliminating everything that was not necessary for the well-functioning of the computational system of human language. In this way, the MP envisaged by Chomsky was an attempt to follow the most prominent figures of the scientific enterprise, who considered that less is more in the scientific world: 'nature is perfect and simple, and creates nothing in vain', as stated by Galileo, natura simplicitatem amat (nature loves simplicity), and numquam in ipsa quicquam otiosum aut superfluum exstitit (never in it is there found anything useless or superfluous), as asserted by Kepler (Boeckx 2006: 112-3).

The way it was designed in the previous model, UG could neither achieve the simplicity imposed by natural laws nor account for the evolution of language satisfactorily. If complexity requires natural selection and gradualness of complexity spread to other animals, we would expect to find slight differences between human beings and other animals, as well as different degrees of a faculty of language, which is not the case. This

stalemate was known as Wallace's Problem (Bickerton 2014: 1). Related to that is the phylogeny problem of accounting for a rich and articulated UG in so little time since the emergence of UG – around 100 thousand years ago (Nobrega & Miyagawa 2015: 1). This brevity in the emergence of the faculty of language, which would not have had enough time to arise as a complex system by natural selection, was dubbed Darwin's Problem (Hornstein 2009: 8, Boeckx 2009: 45). Together, Darwin's and Wallace's Problems regard, in general, the logical emergence of language:

(34) Wallace-Darwin's Problem: (Nobrega 2019: 63)
How was the complexity attributed to human linguistic competence achieved in evolution, given the apparent poverty of precursors and the short time span for their development?¹

In other other words, linguistic theory should also be capable of explaining the evolution of Universal Grammar within the biolinguistic perspective (Hauser et al. 2002), which gave rise to other levels of success beyond explanatory adequacy (Chomsky 2004): The evolutionary and neurophysiological adequacy levels (Guimarães 2017: 78–9).

These issues could only be overcome if UG was not rich enough. In Chomsky's (2007: 4) words, "the less attributed to genetic information (in our case, the topic of UG) for determining the development of an organism, the more feasible the study of its evolution". Whilst erstwhile linguistic theory's agenda was to reduce children's tasks during language acquisition, consequently enriching UG, approaching Plato's Problem, now the main agenda becomes to attribute little to UG and even then account for language typology, language acquisition, and ultimately, language change. The former rationale was known as the top-bottom model, and the latter as bottom-up. In changing perspectives, MP starts "approaching UG from below" Chomsky (2007), facing it as a simple cognitive system.

The first attempt to remediate this issue was abandoning the previous model. Chomsky (1993) first notes that a derivation should combine elements from the lexicon and generate a pair of interface representations of sound and meaning; hence, as he points out, "Any additional structure or assumptions require empirical justification" (Chomsky 1993: 19). This meant that the previous representational systems of Deep Structure, Surface Structure, Logical Form and Phonological form needed to prove indispensable. Chomsky (1993: 2) argued that "to be used for articulating, interpreting, referring, inquiring, reflecting, and other actions" everything syntax generates must be legible to only two performance systems, articulatory-perceptual (A-P) and conceptual-intentional (C-I). Thus, a "simple design for language would take the (conceptually necessary) interface levels to be the only levels" (Chomsky 1993: 3). In this sense, by combining elements through a syntactic component, language is considered an optimal design to legitimate interface conditions, what was later known as the Strong Minimalist Thesis (Chomsky 2007: 5). The last two levels mentioned before, Deep and Surface Structure from the previous model, were superfluous. For instance, whilst in the previous model D-structure was motivated to,

¹In the original: "Problema de Wallace-Darwin: De que modo a complexidade atribuída à competência linguística foi alcançada na evolução tendo em vista a aparente pobreza de precursores e o curto intervalo de tempo para o seu desenvolvimento?"

grosso modo, guarantee recursion, one single operation called Merge could do the job on one hand and fire D-structure on the other. Merge is an operation that takes two objects and forms a new one out of those. In this way, α Merges with β forming the set γ that contains α , β . Afterwards, a new object δ can Merge with the already formed set γ to generate a new object. As seen with Merge, the basic property of language – recursion – is accounted for without the presence of a D-structure (to see how other representational levels and modules are dispensable, cf. Chomsky 1993, Hornstein et al. 2005).

Along with D-structure, S-structure was eliminated, as well as the modules that enriched UG in the previous model (Chomsky 1981), such as X-bar Theory, Thematic Theory, Case Theory, Biding Theory. In Chomsky (1995a), the X-bar Theory, which accommodated syntactic labels – X', XP – was also abandoned, because albeit interface conditions require that a label is provided from the output between two objects merged, syntax can generate a sentence under bare phrase structures (cf. Chapter 5 for the Labelling Algorithm proposed by Chomsky 2013, 2015). Finally, one of the last changes that extracted complexity from UG regards the amount of structure that the Single Computational System of human language – C_{HL} – carries during the derivation: A derivation is a sum of pieces of structures – phases – sent to the interfaces LF and PF (Chomsky 2000, 2001). Thus, instead of sending the entire structure to be interpreted in terms of sound and meaning, only phases of the derivation are cyclically derived and sent to the interfaces.

Later, Chomsky (2005) also reduced the task of UG by proposing that the more reasonable equation that enters into language acquisition considers not only UG and PLD but also a third factor, *viz.* computational efficiency strategies. Chomsky takes to the extreme the assumption that the faculty of language is biological in some sense and introduces three factors that are found in the growth of any organism in the biological world out there:

- (35) Three factors in language design (Chomsky 2005: 6)
 - a. Factor 1: Genetic endowment, apparently nearly uniform for the species, which interprets part of the environment as linguistic experience, a nontrivial task that the infant carries out reflexively, and which determines the general course of the development of the language faculty. Among the genetic elements, some may impose computational limitations that disappear in a regular way through genetically timed maturation.
 - b. Factor 2: Experience, which leads to variation, within a fairly narrow range, as in the case of other subsystems of the human capacity and the organism generally.
 - c. Factor 3: Principles not specific to the faculty of language.

Factor 1 regards innate UG, which contains invariant operations of the computational system – Merge, Agree – and formal features; Factor 2 refers to the intake from the PLD. Both Factors 1 and 2 were already postulated in previous models. The novelty concerns Factor 3, "(a) principles of data analysis that might be used in language acquisition and other domains;" and "(b) principles of structural architecture and developmental

constraints that enter into canalization, organic form, and action over a wide range, including principles of efficient computation" (Chomsky 2005: 6). Again, diminishing the role of UG in language acquisition by introducing the third factor, Wallace-Darwin's Problem mentioned before can be straightforwardly accounted for within the Strong Minimalist Thesis: UG is perfect for interface conditions because it is almost empty. This almost vacuous model of language architecture has the following equation:

(36)
$$\begin{array}{ccc} \text{UG} + & \text{PLD} + & \text{Computational Efficiency} & \rightarrow \text{Language} \\ \text{Factor 1} & \text{Factor 2} & & \text{Factor 3} \end{array}$$

1.3.1 The Death of Parameters

In the MP, even in the attempt to purge the theory of language, Chomsky (1993) explicitly assumed that parameters were still in UG: "UG provides a fixed system of principles and a finite array of finitely valued parameters. The language-particular rules reduce to choice of values for these parameters" (Chomsky 1993: 4). How this paraphernalia fit the poor UG, however, was not addressed. Hence, albeit the attempt to reduce UG through MP was a huge step, parameters were a thorn in this attempt's side.

Under this new approach to UG, the Principles and Parameters theory faced criticisms from both theoretical and empirical grounds. Newmeyer (2004) was the main character to highlight how this theory was empirically inadequate. The author first shows that P&P had its strengths, pointing out eight factors that prima facie demonstrated its superiority over other approaches, such as a rule model: Parameters are binary, in a way that the child needs to set 1 or 0, or YES or NO to it; only 33 kinds of parameters can derive different grammars for more than the population on Earth (33² = 8.5 billion of grammars > 5 billion of people on Earth); parameters are abstract entities interconnected in a way that generates clusters, such as the case of a pro-drop language: Null subject, free inversion, long wh-movement, empty resumptive pronouns, and that-trace effect violation; parameters are innate and universal; language acquisition is an easy task since children need to set a value in accordance with what they hear, to cite a few strengths of the Principle and Parameter theory. As pointed out by Newmeyer (2004: 188), however, if these advantages "are correct, then the parametric view of language is far-ranging on explanatory power. However, [...] they are not correct.".

He shows that even in a parametric world, rules are needed. This is the case of Hixkaryana which has a parameter for OVS, but it still needs a rule for VP-fronting (Newmeyer 2004: 190–1). Many features in UG have no binary value (Newmeyer 2004: 191–3), such as gender with masculine, feminine, neuter, nominative, accusative, dative, genitive Case, null, partial, and no subject. In regards to the number of parameters, considering a more intricate structure for the syntactic spine, one will see that there should be more than 33 parameters in languages. For instance, if the parametric difference were in functional heads, as suggested by Chomsky (1995b), one would face parametric variation falling under the 32 functional heads in the IP domain (Cinque 1999), in the 30 parameters for the variation in the DP (Longobardi 2003: 119), 5 parameters for the variation in the AdjP (Cinque 1996), and so on. By then, the only proposal regarding

parameters in a hierarchical model was Baker's (2001) polysynthesis parameter. Even though it was an elegant way to correlate properties cross-linguistically, it failed in some aspects. Newmeyer (2004) cites a few of Baker's mistakes when it comes to the unrelated properties the author's hierarchy predicted that were not observed in real life. All in all, Newmeyer (2004: 215) concludes that "Despite the importance attributed to them in the past two decades of work in generative grammar, there is little reason to believe that parameterized principles play a role in the theory of UG".

Another proposal regarding parameters that influenced the death of the original notion of parameters is in Kayne (2005). Comparing the proposal that there exist macroparameters that split languages with almost nothing in common, such as the polysynthesis parameter (Baker 1996), the author suggests a new way of thinking about parameters: In addition to macroparameters, there should also be microparameters, that is, parameters that differentiate two very related languages. In this way, he proposes that "Every functional element made available by UG is associated with some syntactic parameter." (Kayne 2005: 11). An example of a microparametric variation is available in the Romance languages' participial agreement between DPs. Ledgeway & Schifano (2022: 640–1) show that this phenomenon has six possibilities: Whilst in Portuguese, there is no agreement between the object moved, in French, there is number agreement between the participle and the object moved. On the contrary, in Catalan spoken in Barcelona, the agreement only occurs when the object moved is a feminine clitic.

```
(37)
        a.
            A
                     sopa,
                                tinha-a
                                                          comido.
                                                                          (PT)
            the.F.SG soup.F.SG have.PST-IPFV-1-SG=IT.F eat.PRCP.M.SG
                                                      (Ledgeway & Schifano 2022: 640)
            'As for the soup, I had eaten it'
            La clé que j'ai
                               prise. (FR)
            the key that I.have taken
            'I have taken the keys.'
                                                      (Ledgeway & Schifano 2022: 641)
            Els/les
                         he
                                       llegit/llegides.
                                                            (CaT)
            them.M/F= have.PRS-1SG read.PTCP.MSG/FPL
            'I have read them.'
                                                      (Ledgeway & Schifano 2022: 641)
```

One last proposal promoted the resurrection of parameters. Not denying the existence of microparameters, Baker (2008: 352-3) proposes that they might walk together with macroparameters: "the undeniable existence of much microparametric variation does not give us any reason to doubt that there is also macroparametric variation". The question is where one finds such variation. The answer is in what Baker called Borer-Chomsky Conjecture, which suggested that parametric variation was in functional items in the lexicon.

(38) The Borer-Chomsky Conjecture (Baker 2008: 353)
All parameters of variation are attributable to differences in the features of particular items (e.g., the functional heads) in the lexicon.

Microparameters themselves would predict that differences in languages are not in a tout court perspective of head-final, YES/NO; instead, they are in a more granular

perspective considering types of categories, such as verbs follow complements: YES/NO, complementisers follow complements: YES/NO. If that were correct, one would expect much more languages to behave unstably, assigning YES to the first parameter and NO to the second, and fewer languages to have a pure head-final property assigning YES to every parameter of the kind. Baker (2008) shows this is not the case: The reality, instead, indicates that more languages fit a pure property scheme, being consistent with the head-finality parameter, than languages that have different values set for different structures, head-initial for VP, head-final for PP, for instance, as Table 1.1 shows.

Head-finality	Number of languages
V_O and P_NP	454 languages
O_V and NP_P	472 languages
V_O and NP_P	41 languages
O_V and P_NP	14 languages

Table 1.1: Variation Regarding Head Directionality amongst languages (Adapted from Baker 2008: 361).

Baker notes that under any binary macroparametric view, there will be some kind of residue. For example, assuming that there is a head-finality macroparameter, there could not be any language that had a head-final setting for DPs but a head-initial one for VPs. Hence, macroparameters alone are not a suitable model for language variation. With that in mind, Baker proposes to combine macro- and microparameters, because this is the only way to achieve the variation encountered in Table 1.1: "the macroparametric-plus-microparametric approach predicts that there will be more languages that look like pure or almost pure instances of the extreme types, and fewer that are roughly equal mixtures." (Baker 2008: 361)

Theory-wise, further criticism came from the pen of Boeckx (2011). Under the Minimalist desideratum of reducing UG to the highest degree, the idea of multiple parameters in UG is incompatible; in his words, "the traditional Principles-and-Parameters model does not fit snugly with Minimalist intuitions. If Minimalist ideas are on the right track, the standard take on what would count as a solution to Plato's Problem (parameter setting in the context of an overspecified UG) must be rethought from the ground up." (Boeckx 2011: 211). In this way, since Chomsky's efforts were to minimise UG according to the guiding question of "How little can be attributed to UG while still accounting for the variety of I-languages attained?" (Chomsky 2007: 4), Parameters should not be part of the MP the way it was conceived. When one could finally have believed that parameters had been buried at last, with not only their theoretical but also their empirical problems, however, a new approach resurrected parameters.

1.3.2 The Resurrection of Parameters

Unless Principles and Parameters were amended, given the number of problems the theory faced and the emergence of the Minimalist Program, the notion of Parameters was fated

to disappear. Believing that one does not need to abandon this notion, Roberts (2012) proposed an emergentist approach – the Parameter Hierarchy approach – removing them from UG, fulfilling the Minimalist desideratum. The main idea is that aggregates of macroand microparameters were not in UG but were an emergent property of the three factors: UG, PLD, and conservative learning strategies (Roberts 2012: 320). Not being part of UG, the novel approach to parameters is no longer theoretically incompatible with the Minimalist gist.

The Parameter Hierarchy approach assumes that UG – the first factor – contains as the basic tool-kit fundamental operations such as Merge, Agree, labelling algorithms, and features (it is not well established whether all possible features are innate being activated according to their input, Roberts's (2019a) position, or whether features are not innate, but are acquired through some kind of mapping between sound, meaning and features, a more superior level of Saussurean arbitrariness, Biberauer's (2017) position).

As for factor 2, PLD, the idea is that not everything children hear works as a trigger to set some parameter, as suggested by Lightfoot's (1991) idea of *cue*. To perceive a parameter's value, part of what children hear must have a manifestation of the parameter. More formally, two concepts are involved (Roberts 2019a: 95), Trigger (39) and Formal Feature Expression – FF-expression (40)².

- (39) Trigger (Roberts 2019a: 95) A substring of the input text of the PLD S is a trigger for FF_i if S expresses FF_i .
- (40) FF-expression (Roberts 2019a: 95) A substring of the input text of the PLD S expresses FF_i just in case FF_i must be present in order to assign a well-formed representation to S.

Take, for instance, the examples in (41). The substrings there contain the FF-expression of the null subject, head-initial and null object parameters, which trigger NO, YES, and NO, in the case of English; YES, YES, and NO, in the case of Italian; in Japanese, however, the substring manifests the YES values for both null subject and object, whilst the head-initial property is not palpable give the absence of arguments. Hence, the sentences in (41) work as Triggers for children to set the correct parameter value; since they manifest it, they are P-expressions.

²FF-expression was a reinterpretation of Roberts & Roussou's (2003) P(arametric)-expression in (i) below. As Roberts (2019a: 95) argues, only with P-expression, children had to discover negative parameters in the PLD, whilst with FF-expression the absence of the parameter manifestation in the PLD amounts to the absence of selection of the relevant features in UG. Consequently, the notion of Trigger was also slightly modified. The original proposal is in (ii).

⁽i) P-expression (Roberts & Roussou 2003: 15) A substring of the input text S expresses a parameter p_i just in case a grammar must have p_i set to a definite value in order to assign a well-formed representation to S.

⁽ii) Trigger (Roberts & Roussou 2003: 15) A substring of the input text of the PLD S is a trigger for parameter p_i if S expresses p_i .

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(41) (Roberts 2012: 332–3)

a. He ate it. (EN)

b. L'ha mangiato. (IT)

It.s/he-has eaten

'S/he has eaten it'.

c. Tabe-ta (JP)

eat-past

'S/he has eaten it'.
```

Two third-factor principles entered into the learning procedure covered by Chomsky's (2005) third factor: Input Generalisation – IG – and Feature Economy – FE. Both interact with the other two factors, UG and PLD discussed above, giving rise to variation amongst languages. In this way, "Parameters are emergent properties of the interaction of the three factors, and *not* directly predetermined by UG" (Roberts 2019a: 89).

That children generalise properties of the world around them is a fact. For example, when they learn the word dog for the furry, four-pawed animal with a tail, they normally generalise it to every other animal with four paws they see outside. Then, they call dog a cow, a cat, a horse (Oliveira 1989: 49). Another clear case of generalisation at work in language acquisition is the well-known case of overgeneralisation: Between 2–4 years of age, English-speaking children regularise irregular verbs, producing the irregular drinked as if it was regular (in the fashion of dance-danced), instead of drank (Marcus et al. 1992); similarly, Portuguese-speaking children produce the irregular fazi instead of fiz, following the regular pattern in comi from comer (Figueira 2010, Maldonade 2003, Takahira 2013). Hence, as Cournane (2019: 143) comments, "children generalize when they discover the basis for a rule or other systematic relation in their language, and then gradually retract by learning sub-regularities, exceptions, blocking factors, or other factors governing the selection of one form (or meaning) over another."

This general cognitive bias of generalising was modelled as one of the third factors in the linguistic context. Roberts (2007: 273–5) accounts for children's preference for a harmonic system by appealing to their tendency to be conservative. That is, once children notice a property, they tend to generalise it to conserve the observed pattern. For instance, this preference would explain why most languages prefer a harmonic head order, as seen in Table 1.1, in contrast to a non-harmonic head order (Greenberg 1963, Roberts 2007). In this way, the parametric variation emergence found in languages is a consequence of, along with Factors 1 and 2, the computational efficiency – Factor 3 – Input Generalisation:

(42) Input Generalisation (Roberts 2007: 272) If a functional head H_i of class C is assigned FF_i , assign FF_i to all functional heads $H_1 \dots H_n$ in C.

After analysing several changes in different languages, Roberts & Roussou (2003: 200) conclude that "reanalysis gives rise to a new exponent for a higher functional head X", and that the new reanalysed structure is simpler than the former one. By simpler, they mean a structure X with fewer formal features than Y, which is, somehow, a revisiting

of Roberts's (1992a) Least Effort Strategy (29). In this way, the metric for a simpler structure is given as follows through Feature Economy.

(43) Feature Economy (Roberts & Roussou 2003: 201) Given a pair of adequate structural representations R, R_0 for a substring of input text of the PLD S, choose R iff R has n distinct FFs and R_0 has m > n distinct FFs.

Combined, Feature Economy and Input Generalisation work as the driving force of parametric variation because children are at the same time conservative and liberal (Biberauer 2019b,a). Conservative because they will postulate a feature only when there is evidence for the contrastive status of the relevant feature; on the contrary, in the absence of evidence of this contrast, no feature is postulated. Children are also liberal because once a feature is postulated, they spread it to every other relevant element (Biberauer 2019a). As suggested by Biberauer & Roberts (2016), Biberauer (2017), FE and IG are instances of the same third principle called Maximise Minimal Means (MMM). Hence, language acquisition and parametric variation are viewed not as a set of parametric values already specified in UG but as the interaction between basic operations and features provided by UG (Factor 1), triggers of a P-expression in the intake (Factor 2), and learning computational efficiencies, such as FE and IG – combined into MMM (Factor 3). This equation is formulated as follows:

(44)
$$\begin{array}{ccc} UG + & PLD + & MMM & \rightarrow Language \\ Factor 1 & Factor 2 & Factor 3 \end{array}$$

Interacting, FE and IG act by minimising the postulation of new Formal Features and maximising the use of the ones already available, a "minimax search/optimization algorithm" according to Roberts (2019a: 93): Children assume that NO heads bear a formal feature. This satisfies FE since no features are better than one, and even better when this no stipulation is generalised, satisfying IG. When a feature is detected in the intake, however, FE is defeated, but this feature is generalised to ALL relevant heads to meet IG. If children perceive that not every head bears the relevant feature, but a class of heads does, the system understands that only some heads bear the formal feature. Once this happens, the procedure iterates for the subset of heads just assumed to bear the relevant feature. Finally, when no additional feature is postulated, the system halts. This procedure gives rise to the learning algorithm path of NO > ALL > SOME, formalised as follows.

- (45) Learning Path (Biberauer et al. 2014b: 111)
 - a. default assumption: $\neg \exists h [F(h)];$
 - b. $\exists h [F(h)] \rightarrow \forall h [F(h)];$
 - c. if $\exists h \neg [F(h)]$ is detected, select $h0 \subset h$ as the domain of quantification and go back to (a);
 - d. if no further F(x) is detected, stop.

A clear example of the NO > ALL > SOME learning algorithm path comes from the well-known overregularisation process. In the first stage, children produce irregular verbs as the target form. Only in the second stage do they overgeneralise irregular verbs. Finally, in the third stage, they produce every verb as adults do. This process is known as the U-shaped curve, wherein in the first moment, there are hits, in the second, misses, and in the third, hits again. Araújo-Adriano & Beraldo (2023) accounted for this process showing that children first derive verbs as a singleton; that is, there is no entertainment of any general rule to derive verbs, given that they were exposed to few verbs from which they cannot recognise any productive rule (Yang 2016); consequently, they produce verbs like adults. In the second stage, a regular rule is entertained, given that the amount of regular verbs is higher than irregular verbs – a metric formalised in terms of the Tolerance Principle (Yang 2016: 8-9) –, and they apply it to all verbs, overgeneralising. Finally, with more data in the PLD, exceptions are diagnosed, and the general rule that was entertained is now only applied to some verbs. This process during language acquisition seems to be a transparent case of the NO > ALL > SOME learning path.

A consequence of this path is that a parametric hierarchy emerges, where parametric variation is a summation of macro-, meso-, micro-, and nanoparameters. Macroparameter refers to the presence/absence of a feature that ALL relevant heads bear (cf. (dis-)harmonic head-final languages discussion in Roberts 2019a: 77–8). When only SOME of the relevant heads, such as the TMA functional heads, bear the relevant feature, the variation is of the mesoparametric type (cf. Schifano 2018: 177). The iteration of the procedure that looks for satisfying both FE and IG within a subset finds a narrower space of variation in a subclass, giving rise to a microparametric variation (cf. Zulu, which allows a double object to be marked, whilst Swahili permits only a subclass of objects – benefactive/recipient – as discussed in Roberts 2019a: 82). Finally, the term nanoparameter regards lexical items that behave differently from the rest (cf. wh-extraction in French, displayed only by combien, as discussed in Roberts 2019a: 86), that is, items that are outliers, having to be "marked in the lexical entry of each individual verb." (cf. Biberauer & Roberts 2012: 273, Footnote 3). The parametric taxonomy as a whole is represented below.

- (46) For a given value v_i of a parametrically variant feature F (cf. Biberauer & Roberts 2012: 268)
 - a. Macroparameters: All heads of the relevant type share v_i ;
 - b. Mesoparameters: All functional heads of a given category (e.g. all verbal heads, all nominal heads, all ϕ -bearing heads or all finite Cs) share v_i ;
 - c. Microparameters: A small subclass of functional heads (e.g. auxiliaries, pronouns) share v_i ;
 - d. Nanoparameters: One or more idiosyncratic lexical items are specified for v_i .

This parameter hierarchy has much in common with Waddington's (1977) epigenetic landscape (Roberts 2012: 322). Waddington (1977: 109) suggests that different parts of an embryo develop independently, forming, in the end, the whole animal: "some parts becoming muscle, some becoming nerve and so on". The point is that at the beginning, there is a *chreod*, a Greek term for 'necessary path', but later this path is canalised into

two or more, splitting up again and again (Figure 1.1). Outside the biological system, this epigenetic landscape is also exemplified in theoretical schools. Take, for instance, Generative Grammar itself that first had a single path of development, then it split up into different one, giving rise to Cartography, Nanosyntax, Distributed Morphology (for another examples of epigenetic landscape, cf. Waddington 1977).

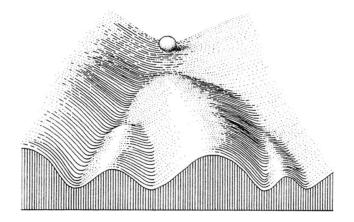
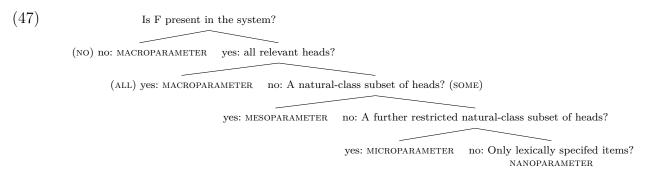


Figure 1.1: Epigenetic Landscape (from Waddington 1957: 29).

Returning from the epigenetic landscape perspective to parameter hierarchy, Roberts (2012: 322) suggests that the lower the path splits up into, the more computationally complex the task. In his words,

The acquisition device searches the space by looking for the 'easiest' solution at each stage, where a solution is defined as a parameter-setting compatible with available primary linguistic data. The device moves from a relatively easy to the next-hardest stage only when forced to by Primary Linguistic Data (PLD) incompatible with the current setting (Roberts 2012: 321).

Accordingly, a parameter hierarchy (PH) looks like the following.



Given children's ignorance at first, they posit NO feature (Biberauer 2019a: 216). If there is no evidence in the target grammar of the presence of the feature, NO will remain the value of the relevant parameter. If there is evidence of F in the target grammar, positing NO initially is not a problem since they can refine its value afterwards. Once they

perceive the presence of F, they will attribute it to ALL relevant heads. In noticing that the feature is not present in all heads, but only in SOME, the search considers not ALL heads but a subset of relevant heads.

As presented above, the PH approach is the most novel proposal to deal with language variation under Minimalist grounds. It is strictly based on the efficient decisions (FE and IG – MMM) children make during language acquisition. Additionally, assuming that language acquisition and diachronic change are closely related in Lightfoot's term, the PH is expected to be compatible with diachronic change. Even though there are not many proposals for diachronic change under PH, there are some hypotheses (Roberts 2012, Biberauer & Roberts 2012). The central one is that the higher the parameter, the more stability it has concerning diachronic change (Biberauer & Roberts 2012: 288). Because macroparameters regard properties that affect all heads, they tend to be conserved over time, given that a change in the domain of macroparameter would trigger significant changes in the language. The lower one goes into the hierarchy, however, more variation one finds over time. For example, many instances of grammaticalisation, according to Roberts (2019a), regard microparametric change. Since nanoparameters only affect a handful of lexical items, they are diachronically more unstable as a result of being in the lowest position: "In order to be acquired, they must be frequently expressed in the PLD, since they are intrinsically unsystematic. Otherwise, they tend to disappear" (Roberts 2019a: 88). These predictions are depicted below (Biberauer & Roberts 2012: 288):

- (48) a. Macroparameters are stable over millennia.
 - b. Mesoparameters are somewhat stable, often characterising genera.
 - c. Microparameters are somewhat unstable.
 - d. Nanoparameters are highly unstable.

As claimed by Biberauer & Roberts (2012: 271), assuming that to acquire a language, children follow a movement "down the hierarchy", linguistic change regards movements that "drift upwards" in the hierarchy. This upward movement, however, is not mandatory for a diachronic change under this approach to take place. As noticed by Ledgeway (2020: 39), a "change does not necessarily imply movement up the hierarchy towards less marked and conceptually simpler options, but may equally proceed downwards to yield more constrained and increasingly complex linguistic choices". This claim supports the idea that changes can occur from one simpler grammar to another more complex; otherwise, we would expect that the first emergence of the faculty of language generated a highly complex language, becoming uncomplicated thenceforth.

1.4 Summary of the Chapter

This chapter presented the main theoretical background adopted in this dissertation. I showed that the most novel approach to language architecture – the Minimalist Program (MP) – reaches what Chomsky called explanatory adequacy: Why do we have a UG the way we have? In this way, the MP seems to be the most elegant and powerful linguistic

theory hitherto available. Accordingly, as was always the case, the diachronic perspective reached explanatory adequacy very recently with the Parameter Hierarchy (PH) approach. Denying the existence of a rich UG (Chomsky 1993, 2005), an issue that brought about profuse criticism (Newmeyer 2004, 2005, Boeckx 2011), parameters are no longer part of UG but are an emergent property that arises through the interaction of the three factors (Roberts 2012, 2019a, Biberauer & Roberts 2012, 2013, Biberauer et al. 2014c, Biberauer 2019a, a.o.): Basic operations such as Merge, Agree, Labelling Algorithms, and a set of features; strings of text that manifest a parametric value; and computational efficiency of Input Generalisation and Feature Economy. Thus, not only the Minimalist Program but also the diachronic field under the PH approach has achieved explanatory adequacy, a desideratum of any scientific field, which is why I adopted this approach in the present dissertation to model the diachronic phenomena I analysed. To this aim, still, other instances of theoretical background will be offered where relevant. In the chapter that follows, I set out the methodology adopted to conduct this investigation.

2 Methodology

Introduction

As mentioned in the previous chapter, Chomsky (1957) proposed a new way of facing linguistics, claiming that this field should meet scientific premises. As in any scientific field, the investigated object must first be well defined, only then to be accounted for: In the case of linguistics, Chomsky (1957) defines language as the internal knowledge of a native speaker. This knowledge, however, is impossible to be accessed in diachronic linguistics, given the absence of living humans from those periods; hence, we shall define aspects of how to indirectly access the internal grammar from earlier periods, I-languages which are no longer among us. In other words, in diachronic linguistics, observational adequacy alone is not enough because more important than the data itself is how the data are collected, which I consider as being part of the methodological adequacy for diachronic linguistics.

In the following sections of this chapter, I will present the methodology adopted in this dissertation. In Section 2.1, I introduce three aspects that make diachronic researchers achieve methodological adequacy, viz. choice of the corpus representing speakers' grammatical knowledge, historical periodicity, and reproducibility of the data. In Section 2.2, I justify how my diachronic data are reliable to access diachronic grammar systems. In Section 2.3, I demonstrate how I built the annotated digital corpus analysed and how the data were collected. Finally, in Section 2.4, other sources of data I used to build this dissertation are indicated.

2.1 Methodological Adequacy in Diachronic Linguistics

Most of the time, when one investigates the history of a language, it is not possible to obtain any judgments about sentences to ascertain whether some construction is or is not (un)grammatical. Note that I used "most of the time" because when the historical clipping is the language of the last century, it is still possible to find living speakers that could check the grammaticality of a particular sentence. The data in Ritchie & Roser (2019) regarding global population suggest that 63% of the population in the world born in the 20th century is still alive. In contrast, there is no attested living person born in the 19th century that could shed some light on the grammatical status of this period. Hence, when one investigates more extended periods of a language, the only way to access, still indirectly, the internal knowledge of speakers is through the written text.

This is so, because, in the absence of apps such as YouTube or Whatsapp, and audio recordings from remote periods, the only available scientific objects that diachronists can make use of are in the written domain, often with several layers of normative editions and revisions. Therefore, the diachronist's job ends up being making the best use of "bad data" (Labov 1972: 100). Hence, it is mandatory to clean up, or at least to decrease, any variables that could camouflage this object as it was, to let it be as close to past reality as possible, "as an attempt to approximate reality" – in Lobo's (1998: 179) words –, achieving some sort of methodological adequacy.

Apart from observational, descriptive, and explanatory adequacy, which I assume every scientist must follow, diachronists must also abide by what I call "methodological adequacy": The investigator must assure that the data represent past native speakers' grammatical knowledge, by guaranteeing that the source of the data represents their language, that the period clipping is reliable on terms of grammatical reality, and, above all, that the data are available so other investigators can reproduce such investigations.

Regarding the source of data, one of the variables that could mask the language of the past is stylistics, evidenced, for instance, in journalistic and political texts, and institutional documents. The diachronic investigator's object then becomes unclear because these texts are grounded in a grammar that is not the reality of a preterit language, but a language filtered by normative rules and pressures. This means that the internal grammar of these antecedents cannot be maximally accessed, given this additional layer – stylistics – of obscurity. It is worth noting that I am not neglecting the contribution of works based on these genres; the research question of these works might be precisely the role of this normative pressure throughout history or even the norm that influenced or shaped the internal grammar of speakers.

This genre criterion seems meaningful when one analyses the same phenomena within different diachronic sources. Take, for instance, Pagotto's (1992) and Cyrino's (1993) research on the position of the enclitic pattern in BP between the 16th and 20th centuries. Whilst the former analyses political documents, highly influenced by normative rules, editing and possibly several reviews, the latter investigated plays, and the results from both are, not surprisingly, opposite: On one hand, Pagotto (1992) found that enclitic started to increase from the 19th century, and on the other hand, in Cyrino (1993), the enclitic pattern decreased in this same period. Another divergence considering different types of genre is found in Galves' (2018) overview of several diachronic research organised by Cyrino & Torres Morais (2018). Galves (2018: 455) noticed divergence in the results from research that used different sources of data – newspapers, reader columns, letters, among others – from the PHPB corpus (cf. also Araújo-Adriano & Corôa 2022).

Within this discussion, since comedy plays refer to "texts whose concern is to approximate speech" (Duarte 2012a: 19), I claim that this genre is an optimal source of data to access the internal grammar of Brazilian Portuguese speakers over time and, accordingly, to achieve methodological adequacy in diachronic grounds.

Comedy plays are considered a genre referring to the daily life of people that do not

³From the original: "como uma tentativa de aproximação da realidade".

⁴From the original: "textos cuja preocupação é uma proximidade com a fala".

belong to the elite that would have access – and be influenced – by normative pressures of the time. Opitz (1624), for instance, remarks that comedy mimics the daily life of humble people, enslaved people's tricks, and youth's futility. Still, he warns that one makes a mistake when including in comedy characters that escape from this pattern, such as emperors and sovereigns, mainly because these characters go against what is represented by the genre: Speakers of low and middle social classes. In the author's words:

Comedy consists of bad beings and bad people; it talks about weddings, dinners, playing, cheating and the slyness of servants and glorious mercenaries, court affairs and frills of youth, the greed of old age, pimping, and things like that occur in front of ordinary people every day. Because of that, those who write comedies today make a mistake when they introduce emperors and potentates; for such a thing goes directly against the rules of comedy (Opitz 1624: 23).⁵

Some specialists on humour argue that laughing is a property unique to human beings (Bergson 2001, Minois 2003, Eustáquio 2013, a.o.). Accordingly, they claim that "it is only possible to laugh at something that, even unconsciously, resembles some human characteristic, even if the cause of laughter is an object or an animal" (Eustáquio 2013: 6), that is, laughter is only triggered by closeness to what is being mocked and to human reality. Bergson (2001: 6), on this matter, claims that "to understand the laugh, it is necessary to place it in its natural environment, which is society; above all, it is necessary to determine its useful function, which is a social function. [...] Laughter must respond to certain requirements of life together". In this sense, to cause laughter, it is clear that the comedy genre needs to be close enough to the audience aiming to trigger this identification and, therefore, to provoke laughter.

In addition to this theatrical representation of a social class, Silva (2015: 19) shows that the difference between tragedy and comedy was determined by the social position represented by the main character, where tragedy was mostly dedicated to nobility, whilst comedy, to disadvantaged people. Hence, it is reasonable to deduce that tragedy employed a neat, classic style of language, whilst, whilst comedy was closer to spoken language. All in all, comedy plays would offer the diachronic linguist an object as clear as crystal: A generation/speaker's grammar without significant extra-linguistics marks, such as normative pressure.

Furthermore, diachronic investigators must consider periodicity over time to achieve methodological adequacy. Under Generative Grammar, some consider historical periodicity based on the author's birth year – biological generation in Paixão de Sousa's (2004: 200) term –, given that the grammar used in their writings might have been built during language acquisition. This is almost entirely accurate. In diaries, for instance, which are a

⁵From the original: "Die Comedie bestehet in schlechtem wesen vnnd personen; redet von hochzeiten, gastgeboten, spielen, betrug vnd schalckheit der knechte, ruhmrätigen Landtsknechten, buhlersachen, leichtfertigkeit der jugend, geitze des alters, kupplerey vnd solchen sachen, die täglich vnter gemeinen Leuten vorlauffen. Haben derowegen die, welche heutiges tages Comedien geschrieben, weit geirret, die Keyser vnd Potentaten eingeführet; weil solches den regeln der Comedien schnurstracks zuewieder laufft."

⁶From the original: "Só é possível que se ria de algo que, mesmo de forma inconsciente, assemelhe-se a alguma característica humana, mesmo que a causa do riso seja um objeto ou um animal."

more personal type of genre, formality is not required, actually, a chatty and informal language is even advised⁷. Concerning more formal documents, as mentioned, normativity runs wild. In comedies, however, the author's plays attempt to mimic the language of a specific generation at the time of the writing, even representing people "speaking on stage as on the street" (Rabelo 2019: Section 2). Araújo-Adriano & Corôa (2022) show that the year of writing captures differences that the year of birth does not: Author of two plays of the same genre – comedy –, Martins Pena uses two different grammars concerning the present Tense analytic construction in two different moments of his writing. Whilst in his 1833 play he used 33% of estar 'be' + a + infinitive, maybe under the influence of the innovative analytic European construction (the analytic construction estar 'be' + a + infinitive replaced the estar + gerund only after the 19th century in European Portuguese, according to Hricsina 2014: 399), in his 1845 play, he used only 9% of this structure, as Figure 2.1 shows. If the diachronic investigator centres their analysis based only on the year of birth – right side of the figure –, not the year of the writing – historical generation in Paixão de Sousa's (2004: 200) term –, the "evolution" of the author's grammar over time, Araújo-Adriano & Corôa (2022: 223) argue, is not perceived.

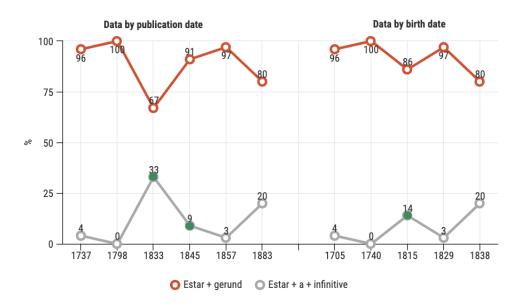


Figure 2.1: Contrast between usages of the analytic present Tense in Martins Pena by historical and biological generation (Adapted from Araújo-Adriano & Corôa 2022: 223).

Thus, albeit aware that the author has a fixed grammar as a result of language acquisition, which would favour biological generation as the criterion for periodicity, I hold that the grammar that the author uses in their comedy plays represents the period of writing, considering their audience. For instance, author of Brazilian comedy plays in the 19th century, Artur Azevedo, points this out. In an interview, he warned that he was

 $^{^{7}} https://webcache.googleusercontent.com/search?q=cache:GIECknliRsQJ:https://essex.newham.sch.uk/wp-content/uploads/2020/11/English-session-3-Writing.pdf&cd=9&hl=pt-BR&ct=clnk&gl=br$

trying to reach and please every type of audience, even with some resistance from the Companhia Lucinda Simões, responsible for promoting shows destined for the economic elite (Neves 2006: 21):

These shows can necessarily be attended by anyone who buys a ticket and is dressed with a certain amount of decency; but the company targets them especially "for the most distinguished families of the elite of our society", and expects its theater to be, on Wednesdays, a meeting point for the ladies and gentlemen of the *monde*, as the French say, or the high life, as the English say. The attempt is intelligent and sympathetic, if only because it may manage to make peace between good society and the theater, which have long been at odds.⁸

Another example of historical generation playing a role in the language used in theatre is several plays that take place in periods other than the year of writing. Although written in a certain period, some plays depict the language and the routine of a society either before the play was written, like *A beata Maria do Egito*, which takes place in 1914, but was written by Rachel de Queiroz in 1958, and *Novas Diretrizes em Tempos de Paz*, which takes place in 1945 but was written by Bosco Brasil in 2001, or after, like *A Arte de Encarar o Medo*, which depicts a society from the year of 2035, but was written by Ivam Cabral and Rodolfo Vàsquez in 2020. Hence, periodicity following the year the play was written in seems more adequate (to see that the contrast between birthday and written year has significant consequences, cf. Araújo-Adriano & Corôa 2022).

Thus far, this chapter has focused on methodological adequacy concerning the data source and historical periodicity. The remaining will discuss another level of methodological adequacy regarding the data's availability and reproducibility. One of this dissertation's contributions is publishing a digital *corpus* with automatic searching, not only easing the task of diachronic linguists, given that few Brazilian historical *corpora* exist, but also guaranteeing transparency in the data.

Under the scope of documentation, there are several ways to guarantee that the process of historical research becomes transparent; Jenset & McGillivray (2017) suggest seven aspects of adequacy regarding the transparency of investigation process:

- (49) Criteria to Guarantee Reproducibility in the Diachronic Investigation (Jenset & McGillivray 2017: 56)
 - a. Include references to the resources (including *corpora*) used, with exact locations and URL links.
 - b. Specify the size of the *corpus* or linguistic sample(s) used.
 - c. Describe how the *corpus*/sample was collected by detailing the inclusion/exclusion criteria.

⁸From the original: "Esses espetáculos podem ser freqüentados, necessariamente, por todo aquele ou aquela que comprar o seu bilhete e esteja trajado, ou trajada, com certa decência; mas a empresa destina-os especialmente "às mais distintas famílias da elite da nossa sociedade", e conta que o seu teatro seja, às quartas-feiras, um ponto de reunião para as damas e os cavalheiros do monde, como dizem os franceses, ou do high life, como dizem os ingleses. A tentativa é inteligente e simpática, mesmo porque talvez consiga fazer as pazes entre a boa sociedade e o teatro, que há muito se desavieram."

- d. Detail the annotation schema used, even when the researcher performed the annotation as a by-product of the subsequent analysis.
- e. Add information about the analysis methods employed and their motivation, as well as the statistical techniques, programming languages, and software used (with version number).
- f. Give details of the different analyses performed (including the ones that did not lead to the desired results), to eliminate the risk of 'cherry-picking' results that conform to the researcher's expectations.
- g. Add all relevant information to allow the reader to interpret and reproduce the data visualizations.

Along with the documentation process, for the research to become replicable, the criteria of *corpus* availability need to be assured. In the following section, I present information about the *corpus* I built to conduct this diachronic research. I will show the choices I made regarding which comedy plays represented each century, authors, and the platform I chose to store the data, the *Corpus Histórico do Português Tycho Brahe*, dubbed Tycho Brahe *Corpus* – TBC.

2.2 The Corpus

There are few Brazilian historical corpora for the diachronist to investigate the history of Brazilian Portuguese. Some of the most notorious are Para a História do Português Brasileiro - PHPB -, Corpus Eletrônico de Documentos Históricos do Sertão - CE-DOHS -, and TBC. The PHPB corpus concentrates on different types of written genres organised by several Brazilian universities – UFPE, UFPBA, UFMG, UFRJ, UFSC, UFPB, and USP. CE-DOHS⁹, organised by UEFS, contains manuscripts written by individuals born in Brazil from 1724 onwards and produced between the years 1823 and 2000, as well as manuscripts produced between the years 1640 and 1822 by various populations born in Brazil from 1590 onwards. Furthermore, it includes manuscripts produced by Portuguese people in Brazil during the first 150 years of colonization. However, it is important to note that these *corpora* are not annotated, and only the second one is available to the main academic community. On the other hand, TBC (Galves et al. 2017) is a digital 10 annotated historical corpus, majorly supplied by European Portuguese authors born between the 16th and 19th centuries. Currently, 88 texts (3,544,628 words) are searchable, with a morphological (applied to 58 texts, with a total of 2,280,819 words), and a syntactic (applied to 27 texts, with a total of 1,234,323 words) annotation system.

The entire *corpus* uses eDictor as its edition tool (*viz.* transcription, modernisation, and morphological annotation), constructed by Paixão de Sousa et al. (2012). With that in hand, one can search for lexical items or word classes in a few seconds, which ensures data accuracy. Furthermore, once the object of investigation is available to the academic community, the reproducibility of the research, demanded by the sciences, naturally

⁹http://www5.uefs.br/cedohs/view/home.html

¹⁰https://www.tycho.iel.unicamp.br/corpus/index.html

follows. As I discussed, reproducibility is achieved in two ways, namely, documentation and availability (Jenset & McGillivray 2017): Both enable the investigator to check results' validity, generalise them to additional data, and even include more variables in the same data set. In the following, I show some aspects regarding the composition of the *corpus* I built.

Aware of the contributions by diachronic researchers making use of other genres, I consider that comedy plays are (one of the) written sources that most resemble(s) the internal grammar of speakers from other centuries for two main reasons. First, in the definition of theatre, there is this intrinsic idea of representation of manners of a society or of a group made explicit through a characters' language. Second, considering that the main goal of comedy is to provoke laughter, the authors write to appraise their audience, language-wise not excluded. It is for these reasons that, despite the year of birth, I considered the publication date to weigh more in periodicity matters.

To achieve the goals of this dissertation, I included in the TBC platform comedy plays between the 18th and the 21st centuries, with a total of 233.183 words¹¹. Listed in Table 2.1, the plays are entirely available in the TBC website, under the *catalogue* tab. ¹²Whenever possible, I chose the number of plays considering the beginning, the middle, and the end of each century. For instance, to represent the 20th century, I used comedies written in 1920, 1957 and 1990. I included more comedies from the 19th century not only because there were more comedies available in this century, but also because several dramatic changes in BP took place in this period (Roberts & Kato 1993). Table 2.1 organises information on the plays by century.

Year of Birth	Author	Play	Century of Writing	Year of Writing	Number of Words
1705	Antônio José da Silva	Guerra do Alecrim e da Manjerona	18th	1737	27.224
1740	Domingos Caldas Barbosa	Viola de Lereno	18th	1798	18.445
1815	Martins Pena	O juiz de paz na roça	19th	1833	6.897
1815	Martins Pena	O noviço	19th	1845	17.563
1829	José de Alencar	O demônio familiar	19th	1857	25.319
1838	França Junior	Caiu o ministério	19th	1883	14.629
1855	Artur de Azevedo	O tribofe	19th	1891	22.434
1880	Gastão Tojeiro	Onde canta o sabiá	$20 \mathrm{th}$	1920	27.495
1934	Gianfrancisco Guarnieri	Eles não usam black-tie	$20 \mathrm{th}$	1957	22.571
1956	Miguel Falabella	A partilha	$20 \mathrm{th}$	1990	17.531
1978	Paulo Gustavo	Minha mãe é uma peça	21st	2006	33.075
1966	Paulo Sacaldassy	Fulana, Sicrana e Beltrana	21st	2007	8.548

Table 2.1: Information on the plays that constituted the *corpus*.

I chose all plays taking into account author nationality. As far as possible, plays by

¹¹It is worth noting that there are other references for the history of BP in an annotated digital *corpus*, such as the Electronic *Corpus* of Historical Documents of the Hinterland (CE-DOHS - *Corpus* Eletrônico de Documentos Históricos do Sertão) based on UEFS.

¹²http://www.tycho.iel.unicamp.br/~tycho/corpus/en/catalogo.html

authors from various parts of Brazil were selected, but most are from Rio de Janeiro, given the population and artistic concentration in that state (Silva Neto 1977). In what follows, based on literary specialists, I justify and clarify the vernacular status of the *corpus* and authors that evidence a *Brazilianized* language with, as far as is achievable, less extra-linguistic variables.

The 18th Century

To represent the eighteenth century, I chose written texts by Antonio José da Silva, and Domingos Caldas Barbosa, both born in Rio de Janeiro, Brazil. Known as o Judeu 'the Jew', Antônio José da Silva wrote plays targeting the less favoured strata who fought for freedom. His plays were "marked by comedy, they pleased the public mainly by the figure of the graceful or court jester, who was the character responsible for criticizing the customs of the time" (Eustáquio 2013: 2). Given that he represented a less favoured social class bothered by their social reality, informal language was constantly present in his plays. Regarding Domingos Caldas Barbosa, the author used "words and forms of expression typical of the colony and for the praise itself, manifested in some of his popular songs, to Brazilian things and people" (Chociay 1995: 223). Some specialists consider the language he uses as "popular, spontaneous, full of fads and quirks" (Lins & Hollanda, 1966: 26, apud Chociay 1995: 224), with "frequent use of regional terms" 16, as noted by the critic, essayist, and playwright Jamil Almansur Haddad (Chociay 1995: 224). Despite not fitting into the primary type of genre – plays – used, I included Viola de Lereno because there are not many comedy plays from the 18th-century BP. Hence, in order not to have only one source of data from the 18th century, I decided to include Barbosa's collection of songs, which, although not a comedy play, has a popular character.

The 19th Century

19th-century BP was represented by plays written by Martins Pena, José de Alencar, França Junior, and Artur de Azevedo. Martins Pena was born in Rio de Janeiro and wrote plays usually associated with everyday life in Brazil, among which the social strata (traders, domesticated slaves), religious festivals (popular dances), political-economic aspects (smuggling, money trafficking) stand out, as Rondinelli (2012: 3) described, which makes his theater be considered as having an "almost journalistic inclination for the facts of the day"¹⁷, for representing everything new "that was happening in daily Brazilian activity"¹⁸ (Prado 1999: 57). Regarding his language use, he is considered an author

¹³From the original: "marcadas pela comicidade, agradavam ao público principalmente pela figura do gracioso ou bobo da corte, que era o personagem responsável pela crítica aos costumes da época."

¹⁴From the original: "vocábulos e formas de expressão típicas da colônia e pelo próprio louvor, manifestado em algumas de suas modinhas, às coisas e gentes brasileiras."

¹⁵From the original: "popular, espontânea, cheia de modismos e requebros"

¹⁶From the original: "uso frequente de termos regionais"

¹⁷From the original: "um pendor quase jornalístico pelos fatos do dia"

¹⁸From the original: "ia sucedendo de novo na atividade brasileira cotidiana".

with fine art work, because he expresses the reality of people by adapting the manner characters speak, keeping their social conditions. He also assigns national linguistically and spontaneous characteristics to characters, representing the real Brazilian. In Rossetti's (2007: 109) words, he created

a language that gives a comic feature to the expression of reality that stimulates artistic production; efficiently use the stylistic resources necessary for the linguistic construction to be verbalised on stage (metaphors, comparisons, irony, hyperbole, etc.); adapt the characters' way of speaking to their social or moral conditions; giving a tone of spontaneity and orality (markedly national) to types that represent the prototype of the Brazilian.¹⁹

As for José Martiniano de Alencar, he was born in Macejana, in the Brazilian state of Ceará, one year before having moved to Rio de Janeiro. Literary specialists consider him to be an author that reveals the formation of the Brazilians at the time, integrating the language, customs, landscape, and environment of the forming Brazilian identity into his characters. Concerning the play *O Demônio Familiar*, as presented by Vasconcelos (2006: 174–5), Alencar defined his play one day before the premiere in *Diário do Rio de Janeiro* as "A picture of our domestic life; a depicting of our customs; an imperfect sketch of the intimate scenes that take place inside the our homes; (...) the image of the family."²⁰

Joaquim José da França Júnior, another author from the 19th century, was also born in Rio de Janeiro. The Academia Brasileira de Letras²¹ – a notorious Brazilian literary non-profit society – pointed out that his themes highlighted the comic in daily-life affairs and that he used several instances of colloquial language.

The last author chosen to represent the 19th century is Artur de Azevedo. He was born in São Luís in the state of Maranhão and dedicated his plays to both the high and the low/medium elite (cf. Neves 2006: 21). This mobility between classes pleased the audience because, as pointed out by Neves (2006: 29), he "knew how to communicate with the general population, that is, with the public, by inserting the culture of that parcel of the population in the literature." In addition to that, his plays did not require a formal education to be understood, because his aims were to "facilitate the identification from the public. People without schooling understood and had fun with the irony directed to their own habits acted out in the scenes" (Neves 2006: 30).

¹⁹From the original: "uma linguagem que dê feição cômica à expressão da realidade que estimula a produção artística; utilizar de modo eficiente os recursos estilísticos necessários à construção lingüística a ser verbalizada no palco (metáforas, comparações, ironia, hipérbole, etc.); adequar o modo de falar das personagens às suas condições sociais ou morais; conferir um tom de espontaneidade e oralidade (marcadamente nacionais) a tipos que representam o protótipo do brasileiro".

²⁰From the original: "Um quadro da nossa vida doméstica; uma pintura dos nossos costumes; um esboço imperfeito das cenas íntimas que se passam no interior das nossas casas; (...) a imagem da família."

²¹https://www.academia.org.br/academicos/franca-junior/biografia

²²From the original: "sabia como se comunicar com a população em geral, isto é, com o "público", através da inserção da cultura daquela parcela da população na literatura."

²³From the original: "facilitar a identificação do 'público'. As pessoas sem escolaridade compreendiam e se divertiam com a sátira a seus próprios hábitos posta em cena."

The 20th Century

Gastão Tojeiro, Gianfrancisco Guarnieri, and Miguel Falabella constituted the 20th century period *corpus*. Gastão Tojeiro, born in Rio de Janeiro, dedicated his career to building an image of Brazil after the First World War. According to Busetto (2003: 212), Tojeiro tried to portray the society of the 1920s, through the humour found in the prototypical habits of the Brazilian population. Thus, even though Brazil suffered economically from the developments of the First War, Gastão Tojeiro proposed to show "the characteristic habits of our social and political organization, allied to the idea that, despite everything, Brazil is the best country in the world and that future possibilities lie here" (Magaldi, 1997: 192 apud Busetto 2003: 212).

Gianfrancisco Guarnieri was born in Italy in 1934, but when he was 2 years old, he moved to Brazil. Furtado (1982: 37) points out that *Eles não Usam Black-Tie* "was very loose acting, very relaxed, very much based on the daily observation of common man's behavior"²⁵,in Guarnieri's own words when characterizing the play I analyse. Gianfrancisco tried to break the idea that theatre was made for the most advantaged classes, suggested even in the title, by referring to a class that does not use a dress code – the "tuxedo" all in "good manners"²⁶ (Furtado 1982: 70), which, one can claim, was reflected in the language of the play. The choice of an English word – black-tie – in the title collides with "the play's language, which is natural, simple and includes even some exacerbated colloquialism – 'tu gosta de eu"'²⁷ (cf. Furtado 1982: 70).

Miguel Falabella, playwright, director, filmmaker, writer, and actor, was born in Rio de Janeiro. Author of many plays, he inspired by "the politics of the moment and the concerns of the middle class that constitutes most of his faithful audience" making "a mixture of 'performance art' and improvisational comedy called 'slapstick theater" (Albuquerque 1992: 33). Regarding the author's language style, he makes abundant use of colloquial structures, very close to orality, as pointed out in Corrêa (2010: n.p.):

As to the linguistic/stylistic aspect, one can point out the colloquialism of a speech (direct, inherent to the dramatic genre), tending to irony and mockery, to the abbreviation of words (té logo! [instead of até logo! 'see you later!']), to vulgar foreign words ("all right", "bye, bye", "chic"), expressed in a language full of slang, close to orality, characteristic of the masses ("the police are not soup", "it's potatoes", "Mother fucks with our minds"...).³⁰

²⁴From the original : "os hábitos característicos da nossa organização social e política, aliada à idéia de que, apesar de tudo, o Brasil é o melhor país do mundo e que aqui se encontram as possibilidades futuras"

²⁵From the original: "era uma interpretação muito solta, muito largada, muito baseada na observação do dia a dia do comportamento do homem comum"

²⁶From the original: "boas maneiras".

²⁷From the original: "a linguagem da peça que é natural, simples e na qual se inclui até algum coloquialismo exacerbado – "tu gosta de eu"

²⁸From the original: "na política do momento e nas preocupações da classe média que constitui a maior parte do seu público fiel"

²⁹From the original: "uma mistura de "performance art" e comédia do improviso chamada de "teatro do besteirol"

³⁰From the original: "No que toca ao aspecto lingüístico/estilístico, pode-se apontar o coloquialismo de

The 21st Century

As for the 21st century, I analysed two plays written by Paulo Gustavo and Paulo Sacaldassy. Author of $Minha\ M\~ae\ E\'uma\ Peça$, Paulo Gustavo was born in Rio de Janeiro. The main character in this play is a mother who, according to Gomes (2018: 22), definitely represents the Brazilian mom. Furthermore, the entire play has family aspects as its theme and a language very close to that of the audience. Both aspects, as Gomes (2018: 22) argued, represent the contemporary Brazilians:

Both from the point of view of the actor, as an individual-viewer-creator immersed in our society, and from the point of view of the spectator, the audience, who sees themselves represented in the character and in the plot. As a result of this formula, we observed an enormous resonance with the public and the play's surge to success.³¹

Finally, closing the *corpus*, Paulo Sacaldassy was born in Santos, São Paulo. His play Fulana, Sicrana e Beltrana revolves around three friends who meet after twenty years. They argue about what has happened since their last meeting and end up discovering that one of the friends indirectly caused the end of the other's marriage. Referring to the play in the Jornal Agência Pará newspaper, the journalist Beatriz Pastana³² remarked that the plot "creates several comical and embarrassing situations between the friends. The show promises to make the audience roll on the floor laughing with the three characters.³³

In this section, I presented two main aspects that diachronic investigators must address in order to achieve methodological adequacy, namely, the type of genre to constitute the data source and the historical periodicity, whether the year of birth of the author or the year of publication. I claimed that comedy plays are the most fruitful genre of text to (indirectly) reach native speakers' grammatical knowledge over time because this type of text uses a language that is very close to the audience's in an attempt to provoke laughter, as I showed. Additionally, due to this attempt, I considered it reasonable to claim that the historical periodicity should be based on the year of writing, not the year of birth (at least regarding comedy plays). The following section moves on to consider another criterion for achieving methodological adequacy: Reproducibility of the data.

um discurso (direto, inerente ao gênero dramático), tendente à ironia e ao deboche, à abreviação das palavras ("té logo!"), ao estrangeirismo vulgar ("all right", "bye, bye", "chic"), expresso num linguajar eivado de gíria, próximo à oralidade, característico da camada popular ("a polícia não é sopa", "é batata", "Mãe fode com a cabeça da gente" ...)."

³¹From the original: "Tanto do ponto de vista do ator, sendo ele indivíduo-telespectador-criador imerso em nossa sociedade, quanto do ponto de vista do espectador, a plateia, que se vê representada na personagem e em sua trama. Como resultado dessa fórmula, observamos uma enorme ressonância com o público e a escalada de sucesso da peça."

³²https://agenciapara.com.br/noticia/22884/

³³From the original: "gera várias situações cômicas e constrangedoras entre as amigas. O espetáculo promete fazer o público rolar de rir com as três figuras".

2.3 Guaranteeing Reproducibility of the Corpus

Having justified the choice of texts regarding historical periodicity and genre, I can now show that the third level of methodological adequacy was also met. In Section 2.3.1, I turn to the reproducibility criteria involving the edition process, *viz.* transcription, edition itself and morphological annotation (cf. also Galves 2019). In Section 2.3.2, methodological decisions made during the data count are presented, as well as the set of queries ran.

2.3.1 A Morphologically-Annotated Corpus

The choice of the sources for the edition process occurred considering play availability. Whenever possible, the plays used to constitute the *corpus* were edited from their original version; when there was no original version available, however, the material was obtained on the websites of digital collections, such as *Biblioteca Brasiliana Guita e José Mindlin* from Universidade de São Paulo and *Google Books* (cf. Figure 2.2).

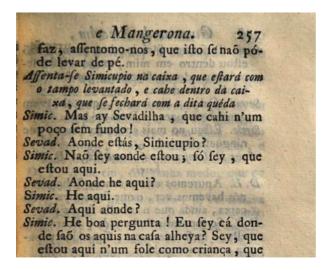


Figure 2.2: Excerpt from the *Guerra do Alecrim e da Manjerona* play obtained on Google Books.

The transcription process started with the transfer of the original text, either scanned or in PDF format, to a searchable and editable document, through the optical character recognition software ABBYY FineReader PDF 15 Editor OCR. I revised each word to guarantee reliability between the original and the new document. I also preserved the orthographic and syllabic properties of the words. I shall mention that the number of pages did not appear textually in the transcribed version (50), but it was inserted in accordance to the original version (cf. Figure 2.2, top right-hand corner of the page) on the edition software, eDictor.

(50)faz , affentomo-nos , que ifto fe naõ póde levar de pé. Affenta-fe Simicupio na caixa, que eftará com o tampo levantado, e cahe dentro da caixa, que fe fechará com a dita quéda. Simic . Mas ay Sevadilha, que cahi n'um poço fem fundo! Sevad. Aonde eftás, Simicupio? Simic . Não fey aonde eftou ; fó fey , que eftou aqui. Sevad . Aonde he aqui? Simic. He aqui. Sevad . Aqui aonde? Simic. He boa pergunta! Eu fey cá donde fao os aguis na cafa alheya? Sey, que eftou aqui n'um fole como criança, que

After text transcription, the actual editing phase began. The text was prepared in such a way that in the last stage, viz. morphological annotation, only what is actually sought in the automatic search is kept. This phase can be divided into two, namely, the genre-related editing, and the linguistic editing steps. In the former, edits are made concerning the type of genre, turning attention to more normative/structural aspects of the genre (viz. title, list of characters, scene description etc.) – thus a more philological step. To do so, there are three types of tags that can be inserted to mark these parts:

Sentence tags [s: xxxx], where x could be [character] for signalling the actor that must say the following dialogue (cf. Figure 2.3);

Paragraph tags [p: xxxx], where x could be [action_desc] for action description (that is, stage directions), or [char_desc] for the list of characters at the beginning of a scene;

Section tags [section: xxxx], where x could be [act] for the beginning of an act, or [prologue] for the prologue.

With these labels, one can mark the function of each part of the text, in order to make structural aspects automatically analysable if need be.

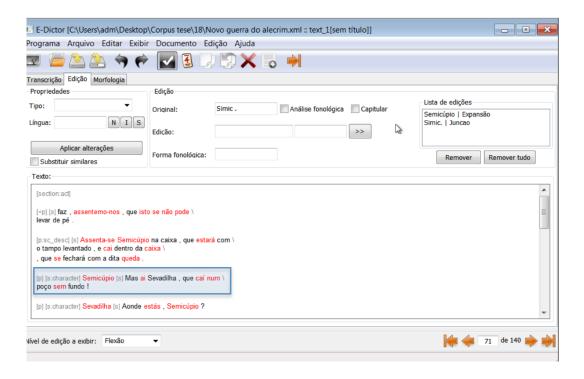


Figure 2.3: eDictor edition screen: Properties of sentence assigned by the [s: character] tag.

It is in the editing step that one can delete, for example, the name of the characters before their lines, using the [s: character] tag (cf. Figure 2.3). By doing that, when searching for a proper noun – tagged as NPR in the morphological layer –, for example, one assures that there are only proper nouns present in the resulting dialogue lines, but not proper nouns that are in the play just to mark dialogue lines. So, with these edit tags, certain structures can be made invisible for morphological annotation (cf. the grey shading on characters names in Figure 2.4 showing that they are invisible at the morphological layer), and, consequently, for generated queries.³⁴

³⁴Many of these decisions were made based on the Tycho Brahe *Corpus* guidelines, available on http://www.tycho.iel.unicamp.br/~tycho/corpus/manual/en/index.html

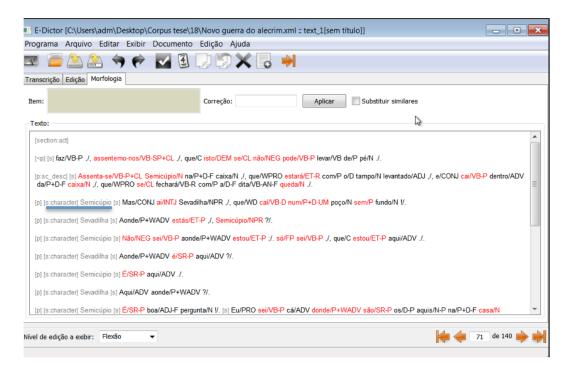


Figure 2.4: eDictor edition screen: Invisible [s: character] tag in the morphological step assigned in the edition step.

Another example of this type of exclusion regards the textual marks of an instruction of a block split or beginning of other. For these cases, specific tags were added: Frame/scene [p: scene], part/end of the play [p: partition], song/chorus/act in the play. Likewise, I also excluded the title [p: title], list of characters [p: characters], scenarios [p: scenery], list of acts/scenes [p: sc_list], the introduction of the play [p: salutation] (cf. Figure 2.5) from searching, given that it is not interesting for the linguist to see these excerpts that tell nothing about how the language of speakers was when searching for a noun, for instance. Although they are invisible in searching, one can recover them in the reading versions on TBC, either in the original (cf. Figure 2.6) or in the modernised text (cf. Figure 2.7).

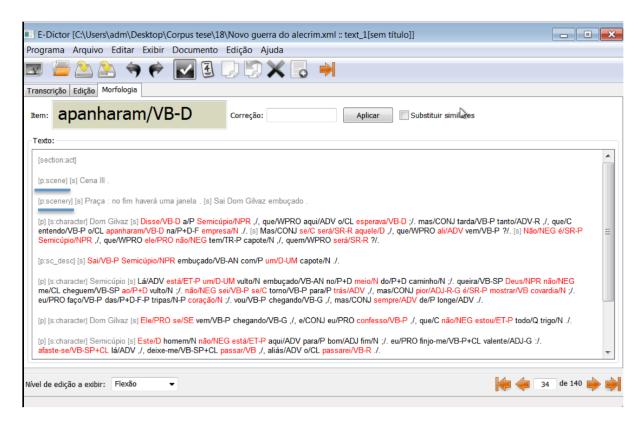


Figure 2.5: eDictor edition screen: Name of the scene and description of scenery invisible to the morphological layer.

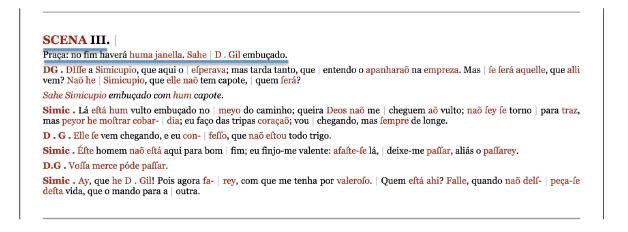


Figure 2.6: Tycho Brahe *Corpus* screen: Scene name and description of scenery available in the source transcription reading version.

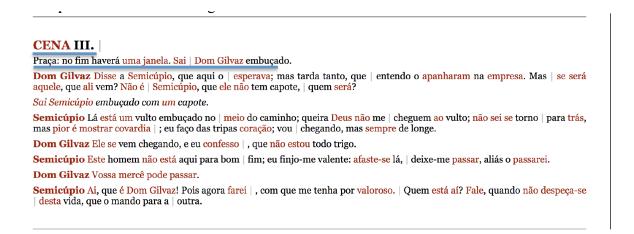


Figure 2.7: Tycho Brahe *Corpus* screen: Scene name and description of scenery available in the modernised reading version.

At this stage, it is also possible to deactivate stage directions [s: action_desc] or scene descriptions [s: sc_desc] (cf. Figure 2.8). I decided to keep stage directions visible only when they regarded characters actions, for they could contain something that might interest linguists.

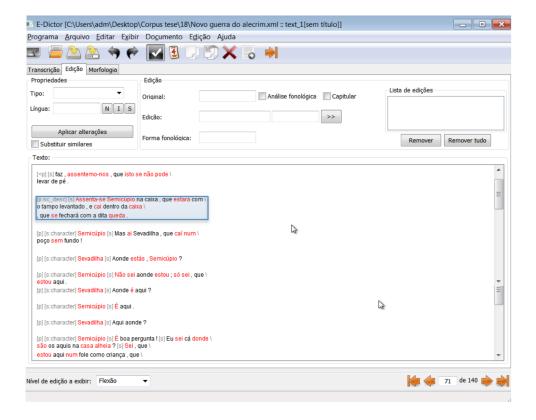


Figure 2.8: eDictor edition screen: Invisible [p: sc_desc] tag in the morphological step assigned in the edition step.

I also edited the plays according to linguistic factors. In this second type of edition, I gathered words, as in syllables broken from one line to the next, segmented words, splitting them into two independent ones when necessary, corrected spelling etc. An advantage of eDictor is that the front-end of the website - viz. the TBC platform - exhibits every layer of edition previously set in the *edition lexicons* option of the working version of the platform. After the genre and linguistic edition, exemplified in Figure 2.2, and transcribed in (50), the text is ready for the morphological-level analysis.

The next step was morphological annotation. One of eDictor's features is that the morphological labelling is done in a few seconds by a probabilistic automatic labeller, trained with Portuguese data, with an accuracy rate of approximately 95% (Galves 2019: 186). Thus, I made the manual correction of the labels. Figure 2.9 shows that each word has a label, which is inspired by traditional grammar and generative theory (Galves 2019: 186): The labels that begin with W come from the generative tradition of analysing interrogative and relative pronouns, as they begin with a letter W as in when (quando), who (quem), which (qual), what (o que), the so-called wh-words (q-words, in Portuguese). Additionally, note that verbs are also labelled according to their inflection, based on the VB verb tag. Thus, assentemo-nos – a variation of sentemo-nos 'sit.IMP=CL.1PL' – receives a VB verbal tag, and a sub-label -SP present subjunctive³⁵, as well as a clitic (CL), superficially represented by VB-SP+CL. It is worth noting that VB is the base of the majority of verbs, but some auxiliaries have their own label (viz. (ET) estar 'be' < STARE, (TR) ter 'have' < TENERE, (SR) ser 'be' < ESSE, and (HR) haver 'have' < HABERE). As Figure 2.9 shows, estar < STARE is labelled as an ET verb in addition to receiving an inflectional label, -RR for future and -P for present.³⁶. I reiterate that character names signalling their lines (e.g., Semicúpio, Sevadilha), uninteresting for the search, are in light grey because they were invalidated by the [s: character] tag in the previous step, as mentioned above.

³⁵Following the Tycho Brahe *Corpus* Annotation System, a sub-tag for imperative (*viz.* -I) is not used where the subjunctive present has the same form of the imperative (*viz. coma* in *espero que ele coma* 'I hope that he eat.SBJV', and in *coma!* 'eat.IMP'), but only where the verb exhibits an explicit imperative morphology (*viz. sabei* 'know.IMP', different from *espero que ele saiba* 'I hope that he know.SBJV'). For the first cases, the Annotation System advises using the same tag as the subjunctive, -SP.

³⁶One can find the complete list of morphological labels on http://www.tycho.iel.unicamp.br/~tycho/corpus/manual/pos2016.html

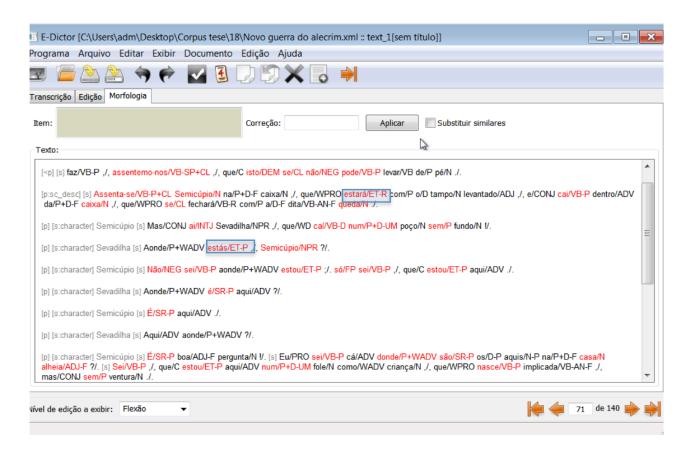


Figure 2.9: eDictor editor screen: Morphological annotation of $Guerra\ do\ Alecrim\ e\ da\ Manjerona.$

Finally, having transcribed, edited, and annotated the plays, the tagged text was exported and added to the TBC. All the plays on which this dissertation was based (cf. Table 2.1) are catalogue available at http://www.tycho.iel.unicamp.br/~tycho/corpus/en/catalogo.html, with extra information that was previously inserted on eDictor (via the metadata tab), such as date, authorship, source, etc:



Figure 2.10: Profile of *Guerra do Alecrim e da Manjerona* with original source edition, immediate source edition, and *corpus* processing details.

Having concluded these steps, one could execute different queries based on the goals of this dissertation. I will illustrate the search system mechanism with respect to the search for the analytic and synthetic present Tense construction. Regarding the former, it is well-known that BP and EP (European Portuguese) display some sort of variation $(51)^{37}$: In the Brazilian variety, the prototypical construction is headed by the auxiliary estar followed by a gerund, whilst in the latter, estar is mainly followed by the preposition a and an infinitive. In the following, I take advantage of results generated by our search for evidence, closing this methodology section, to show that the data from the corpora used in this dissertation indeed represent Brazilian Portuguese.

```
(51) (Araújo-Adriano & Corôa 2022: 209)
```

- a. Olha! A Maria está a correr. (PE, *PB) look the M. be.PRS to run.INF
 - 'Look! M. is running.'
- b. Olha! A Maria está correndo. (*PE, PB) look the M. be.PRS run.GER 'Look! M. is running.'

 $^{^{37}}$ Although Lobo (2003: 381) noted that estar + gerund is also attested in Alentejo, and Algarve – south regions in Portugal –, estar + a + infinitive is the characteristic present Tense analytic construction in EP (Lobo 2003, Mira Mateus et al. 2003, Hricsina 2014).

On the query page³⁸ on the TBC system, I chose the play *Guerra do Alecrim e da Manjerona* in the Choose a source file drop-down menu. Then, to graphically compose the query, I defined the search type in Choose a query type Graphical query.

Tycho Brahe Parsed Corpus of Historical Portuguese presentation reveal catalog manual credits register research Portuguese							
CHOOSE A SOURCE FILE	•	CHOOSE A QUERY TYPE	~				
Query							
	Consider comma as an argument in immediate precedence relati	on					
	SUBMIT QUERY						
Example queries Sentences with Adverbs							
Sentences with the sequence Clitic Neg Verb							
If you	u see any strange characters on screen, please check if the browser encoding	s set to UTF-8.					

Figure 2.11: Initial screen of Tycho Brahe Corpus query system.

To search for the auxiliary estar plus the preposition a and an infinitive, in Choose Tag Enter tag, I typed the label ET*. The asterisk next to ET asks for a search that includes any inflection. Next, I dragged the search box to the indicated space, viz. next to where the option \geq (precedence) was selected. Afterwards, I added (clicking on the + button) another container of search and inserted the preposition tag. In the following step, I specified the type of preposition desired: I clicked on the $\stackrel{\square}{P}$ box and, next to it, on the button with a paper and feather (next to $\stackrel{\square}{[i]}$), typed an a, informing that this was the preposition desired. Having specified the kind of preposition wanted, I dragged the $\stackrel{\square}{P}$ box to the space of search and selected the option >> for immediate precedence because I wanted the preposition a immediately following the infinitive, such as in estar a fazer. After that, I added another search container, added a $\stackrel{\square}{VERB}$ tag for any verb inflected in the infinitive, and dragged it to the search space. The query I submitted is exemplified in (52) and in Figure 2.12.

³⁸https://www.tycho.iel.unicamp.br/corpus/texts/csquery/en/csquery.html



Figure 2.12: Tycho Brahe Corpus Screen for the Query estar + preposition + infinitive.

With this query, TBC provides the result within a few seconds, in addition to the search date, the search itself in manual format, the number of hits, tokens, the total of words searched, and, indeed, the sentences (under HEADER) with (cf. (53-b)) and without morphological labels (53-a). For the above-mentioned query, I obtained only 1 result of estar + a + infinitive on the Guerra do Alecrim e da Manjerona play, as we can see in Figure 2.13 (under the SUMMARY heading).

```
algua que podesse contradizer a esta nossa, como algua que podesse contradizer a esta nossa que podesse ante se vera no capitulo que trata de se contradizer a esta no capitulo que trata de se contradizer a esta no capitulo que trata de se contradizer a esta no capitulo que trata de seus costumes ante se vera no capitulo que trata de seus costumes ante se vera no capitulo que trata de seus costumes ante se vera no capitulo que trata de seus costumes ante se vera no capitulo que trata de seus costumes ante se vera no capitulo que trata de seus costumes ante se vera no capitulo que trata de seus costumes ante se vera no capitulo que trata de seus costumes ante se vera no capitulo que trata de se vera no capitulo que trata de seus costumes ante se vera no capitulo que trata de seus costumes ante se vera no capitulo que trata de seus costumes ante se vera no capitulo que trata de seus costumes ante se vera no capitulo que trata de se vera no capitu
 tam despedio logo Pedraluarez hum nauio
 elRev
                                                                                                                                Guerra do Alecrim e da Manjerona (Antônio José da Silva, 1737, teatro)
                                                                                                                                                                                      ./OTHER/GUERRA-ALECRIM
                      Versão do CorpusSearch 2.002.65
                      Manual do CorpusSearch
                     PREFACE:
                      CorpusSearch copyright Beth Randall 2005.
                     Date: Tue Mar 30 17:35:10 BRT 2021
                                                       /dados/www/static/tycho/corpus/texts/pos/txt/../other/guerra_alecrim_pos.txt
nhia
                       search domain: $ROOT
sta ce
                      query: ((ET* Precedes P)AND(P iDoms a)AND(P iPrecedes VB)AND(P iDoms a))
                      source file: guerra_alecrim_pos.txt
                     Não falemos nisso que ainda estou a tremer.
                     (GUERRA,16.202).
ce razi
algüa
                     0: 11 ET-P, 13 P, 14 a, 15 VB
 antel
                     (NEG Não) (VB-SP falemos) (P+DEM nisso) (C que) (ADV ainda) (ET-P estou) (P a) (VB tremer) (...) (ID GUERRA,16.202) (PONFP .))
 meç
                        source file, hits/tokens/total
                       guerra_alecrim_pos.txt
                                                                                         1/1/2518
                     SUMMARY:
                       source files, hits/tokens/total
                                                                                         1/1/2518
                      guerra_alecrim_pos.txt 1 whole search, hits/tokens/total
                                              1/1/2518
```

Figure 2.13: Screen of Tycho Brahe Corpus outcome generated by the query estar + preposition a + infinitive.

- (53) a. Não falemos nisso que ainda estou a tremer.

 not talk on-this that still be to tremble

 'Let us not talk about this, because I am still trembling.'
 - b. (NEG Não) (VB-SP falemos) (P+DEM nisso) (C que) (ADV ainda) (ET-P estou) (P a) (VB tremer) (...)

To search estar 'be' followed by a gerund, the procedure was almost the same, except that the preposition was not part of the search, and in the place of an infinitive verb tagged as VERB, I specified the VERB tag as VB-G, for gerund.

The syntax of the search asked for a verb *estar* in any inflection preceded by a gerund verb (cf. (54)). I did not search for *estar* 'be' immediately preceding the gerund, for the data where the gerund did not immediately precede *estar* 'be' but still could be the complement of this verb, such as *todos os dias* 'everyday' in (55) could be missed, hence the search in (54).

- (54) ET* Precedes VB-G >
- (55) a. Manoel João está todos os dias vestindo a farda.

 M. J. be.PRS every the days wear.GER the regimentals 'M. J. is everyday wearing the regimentals.'
 - b. (NPR Manoel) (NPR João) (ET-P está) (Q-P todos) (D-P os) (N-P dias) (VB-G vestindo) (D-F a) (N farda)

At the same time, with a morphological search only, the software generates unpredictable results, including data of *estar* preceding a gerund verb that is not its complement, but that heads an adjunct sentence, such as exemplified in (56). Thus, although the search depicted offered us 26 results (cf. Figure 2.14) from *Guerra do Alecrim e da Manjerona*, it was necessary to check each case, yielding 22 correct results, as in (57), following the query desired.

- (56) a. Não está mais na minha mão, em abrindo a boca me not be.PRS more in-the my hand in open.GER the mouth me chovem os conceitos aos borbotões.

 rain.PRS the concepts to-the spurts
 'It's no longer in my hand, when I open my mouth, concepts rain down on me.'
 - b. (NEG Não) (ET-P está) (ADV-R mais) (P+D-F na) (PRO\$ -F minha) (N mão) (, ,) (P em) (VB-G abrindo) (D-F a) (N boca) (CL me) (VB-P chovem) (D-P os) (N-P conceitos) (P+D-P aos) (N-P borbotões)
- (57) a. Mas se lhe falo, é capaz de acordar o cão do but if CL.3SG speak.PRS be.PRS capable of wake.INF the dog of-the velho, que está dormindo e encerrar-me em parte mais old that be.PRS sleep.GER and finish.INF=CL.1SG in part more apertada.

tight

- 'But if I talk to him, he might wake up the old man's dog, who is sleeping, and lock me up in a tighter corner.'
- b. ((CONJ mas) (C se) (CL lhe) (VB-P falo) (, ,) (SR-P é) (ADJ-G capaz) (P de) (VB acordar) (D o) (N cão) (P+D do) (N velho) (, ,) (WPRO que) (ET-P está) (VB-G dormindo) (, ,) (CONJ e) (VB+CL encerrar-me) (P em) (N parte) (ADV-R mais) (VB-AN-F apertada) (. :)

```
FOOTER source file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 te fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 te fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file, hits/tokens/total guerra_alecrim_pos.txt 26/26/2518 to fazen from the arrow file from the arrow fil
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Figure 2.14: Tycho Brahe *Corpus* Summary of the Outcomes from the Query *estar* + gerund in the play *Guerra do Alecrim e da Manjerona*.

After I applied the search to every play in our corpus, I was given the results that contrast estar + gerund, and estar + preposition a + infinitive verb in the diachrony of BP. We can see in Figure 2.15 that in every play the rate of the first analytic construction is higher than the second. There are some disparity from authors in 1833 and 1883, but still the present Tense is mostly conveyed by the unmistakable Brazilian analytic construction, which is the structure categorically used from the end of the 19th century onwards. This might suggest that a property that is highly characteristic of Brazilian Portuguese was already widely disseminated in Tupiniquim soils since 1737.

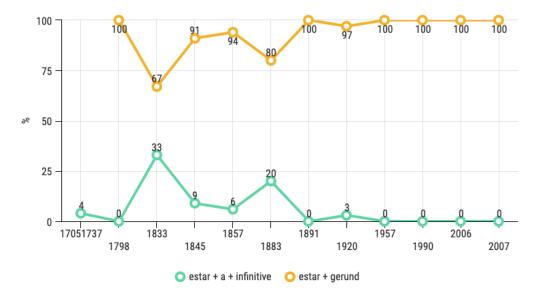


Figure 2.15: Diachrony of analytic constructions estar + gerund versus estar + a + infinitive.

To achieve the main goal of this dissertation, a further query I executed regards the data on synthetic present Tense over time. To collect them, on the query Tycho Brahe Corpus system, I chose the VERB tag in Choose the tag. To specify that I wanted verbs inflected in the present Tense, I clicked the VERB box, and, in the button with a paper and feather beside it, I specified verbs in the present Tense by writing the VB-P tag. After that, I dragged the VERB box to the search space and submitted the query (cf. Figure

2.16). The query gave us 27,227 hits for verbs displaying the present Tense morphology, each of which was carefully analysed.

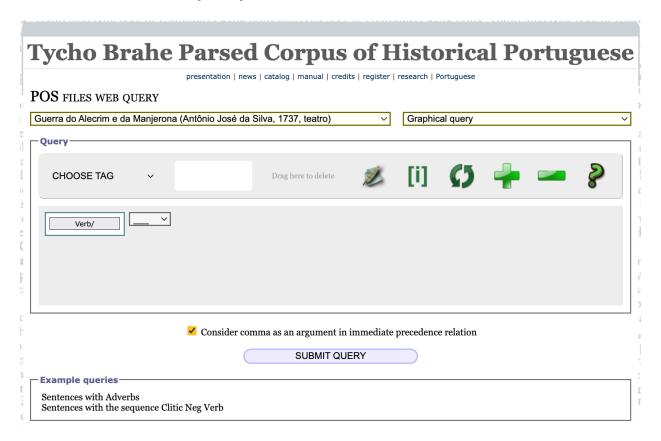


Figure 2.16: Tycho Brahe Corpus Screen of the Query verbs inflected in the present Tense.

Some of the comedy plays I annotated were extensively used in other investigations. For instance, Duarte (1993, 2012b) investigated the null subject parameter using O noviço, Caiu o ministério, O juiz de paz na roça, Onde canta o sabiá, A partilha; Cyrino (1994) used Viola de Lereno, O tribofe, Guerra do Alecrim e da Manjerona to investigate the null object in BP, Torres Morais (1993) used O noviço and Guerra do Alecrim e da Manjerona to explore verb movement, sentence structure and nominative Case in BP over time, Lopes-Rossi (1993) analysed Guerra do Alecrim e da Manjerona, O juiz de paz na roça, O tribofe in her survey on the BP interrogative sentences in diachrony, to cite a few. With these plays now annotated, one can easily and rapidly replicate, reinterpret and expand the early researches that have influenced the literature on BP.

2.3.2 Some Methodological Decisions

In this section, I present decisions I made regarding the count of the data. There were some cases where the gerundive complement of estar 'be' was not adjacent to the auxiliary, albeit it was recovered by the context. An example of this case is in the play $Eles\ n\~ao$

usam black-tie³⁹, where the short form of estar 'be' tá from está 'be.PRS.1SG' appears alone in the line of one character. I then went through the excerpt to analyse its context: Estar had an elided gerund complement, recovered in the first line of (58): tá quase = tá quase **brigando**. I counted all such cases as an instance of an analytic construction.

```
correndo). Seu Otávio tá
(58)
        TEREZINHA. (Entra
                                                            quase brigando no
                    enter.PRS run.GER S. O.
                                                     be.PRS almost fight.GER in-the
        botequim!/
        pub
        ROMANA. Nossa Senhora, pronto. Esse Otávio!/
                  our
                        ladv
                                  ready
                                        this O.
        TEREZINHA. Tlpha
                            quase; ainda não tá,
                                                     n\tilde{a}o.
                    be.PRS almost yet
                                        not be.PRS no
        'TERESINHA. (Enters, running). S. O. is almost fighting at the pub.
        ROMANA. Jesus Christ! I can't believe this O.
        TEREZINHA. He is almost fighting, he is not fighting yet.'
                                                                  (1957/20 - ENUBT)
```

In searching for the VB-P tag, the system generates results of sentences containing at least one occurrence of a verb in the present Tense. Thus, it often happens that in the same sentence there are other verbs inflected in this Tense, as in (59). For the diachronic counting, when this happened, I considered as many verbs in the present Tense as there appeared in the search.

(59) Não **sabe**, que a irmã gazua sempre me **acompanha**?
not know.PRS that the sister passkey always me accompany.PRS
'Don't you know that sister passkey always accompanies me?'

(1737/18 – GAM)

TBC does not have a specific tag for the auxiliary ir 'go', but only for the other auxiliaries, treating it as any other lexical verb. Accordingly, the search for $\overline{\text{VB-P}}$ also included in the results all cases where the verb ir 'go' was inflected in the present Tense. So, since the focus of this query was to analyse how lexical verbs in the present Tense behaved over time, I excluded auxiliary ir from the group $lexical\ verbs\ in\ the\ present\ Tense$.

Likewise, I did not count other auxiliaries in the group of verbs inflected in the present even when they were inflected so, such as the copula-auxiliary ser 'be', in (60), for example. Also, in the present analysis I disregarded modal verbs as in (61). Thus, for this analysis, only lexical verbs inflected in the present tense were computed in the group of synthetic present Tense.

 $^{^{39}}$ For the diachronic examples, VL = Viola de Lereno; GAM = Guerra do Alecrim e da Manjerona; OJPR = O juiz de paz na roça; ON = O noviço; ODF = O demônio Familiar; CM = Caiu o ministério; OT = O tribofe; OCS = Onde canta o sabiá; ENUBT = Eles não usam black-tie; AP = A partilha; MMEUP = Minha mãe é uma peça; FSB = Fulana, Sicrana e Beltrana; cf. also Table 2.1.

(60) Vieste roubar-me, não **é** verdade? come steal.INF=me not be.PRS true 'You came to steal me, isn't it true?'

(1737/18 - GAM)

(61) Ah, como **deve** ser bonito. ah how might be.PRS beautiful 'Oh, it might be beautiful.'

(1833/19 - OJPR)

Finally, I also did not tally the cases of crystallised/fixed expressions with verbs inflected in the present tense.

(62) a. $Uma\ m\~ao\ lava\ a\ outra.$ one hand wash the other 'You scratch my back, and I'll scratch yours.'

(2006/21 - MMEUP)

b. Quem te viu e quem te vê. (A partilha, 1990) who you saw and who you see 'Who would have thought?'

(1990/20 - AP)

c. Para mim tanto **faz** que você vença ou seja vencido.

to me whatever that you win or be won

'To me it doesn't matter if you win or you are defeated.'

(1920/20 - OCS)

Below, I present the summary of queries I ran to conduct this diachronic research. To constitute the synthetic present Tense group, I queried for every lexical verb in the present through the tag VB-P (63). For its counterpart, I searched for the analytic construction estar + gerund and estar + a + infinitive in any inflection and their non-finite verb, as in (64). For the counterpart of the synthetic present Tense, I filtered these analytic constructions by selecting only the ones inflected in the present Tense, as in estar.PRS + gerund (está chovendo 'be.PRS rain.GER') and estar.PRS + a + infinitive (está a chover 'be.PRS to rain.INF').

- (63) Synthetic Present Tense VB-P
- (64) Analytic Present Tense estar 'be': $ET^* > P(a) >> VB / ET^* > VB-G$

Albeit this dissertation focuses on the synthetic and analytic present Tense, I counted and considered data from other analytic constructions, so I could have a bigger picture of the analyticisation process in BP. Hence, I also included the queries of the auxiliary ter 'have' (65-a) and ir 'go' (65-b). As mentioned, since TBC does not have a dedicated tag for the auxiliary ir 'go', so I built the list in (65-b) for the \overline{VB} tag, asking for any verb in the corpus that matched any entry in the list.

- (65) Other Analytic Constructions
 - a. ter 'have': $HV^* > PP$
 - b. ir 'go': vou|vais|vai|vamos|ides|vão|ia|ias|íamos|íeis|iam|iria|irias|iríamos|iríeis| iriam|irei|irás|irá|iremos|ireis|irão > VB

As shown, I drew upon the results of two main queries to make up my diachronic data, one regarding the analytic (present) Tense and the other, the synthetic present Tense. I analysed each resulting query hit and controlled the aspects that could shed some light on the analyticisation process, such as the position of adverbs with respect to verbs and aspectual readings. In the remaining chapters, I will make these decisions explicit where relevant. Regarding the other analytic constructions, I did not analyse their synthetic counterpart because it is beyond the scope of this dissertation. To statistically compare the phenomena, one could not use the absolute number of occurrences to measure this preference, for the number of words in each play differs. Therefore, I normalised the number of occurrences by a measure representing the length of each play. For this dissertation, I selected the number of words as a proxy for the length of each play. The ratio between the occurrences and the number of words generates a parameter that enabled me to investigate if speakers increased the usage of other analytic constructions over time. In the following chapters, I will make it clear when I present these data.

2.4 Other Sources of Data

Speakers can judge whether a given sentence is (un)grammatical in their native language. This is, in reality, a foundational tenet of Generative Grammar theory, where native speakers recognise whether a sequence of words is or is not part of their grammar, as mentioned in Chapter 1. This is clear in Chomsky (1957), when the author defines grammar as the tool that generates grammatical but not ungrammatical sentences and states that one way to construct an adequate model to generate such a grammar is from the speaker's linguistic knowledge – the grammaticalness judgment.

One way to test the adequacy of a grammar proposed for L is to determine whether or not the sequences that it generates are actually grammatical, *i.e.*, acceptable to a native speaker, etc. We can take certain steps towards providing a behavioral criterion for grammaticalness so that this test of adequacy can be carried out. For the purposes of this discussion, however, suppose that we assume intuitive knowledge of the grammatical sentences of English and ask what sort of grammar will be able to do the job of producing these in some effective and illuminating way (Chomsky 1957: 13).

With this in mind, concerning some of the data about contemporary Portuguese used in this dissertation, I used my own grammatical judgments, and, when I wanted to highlight some more specific property, such as the ordering of the adverb in relation to the verb, I consulted other speakers who judged as (un)grammatical the sentences they were presented with. Divergences in judgement are pointed out throughout the text. Another

source of data I used in this dissertation were websites, blogs, and social networks, each provided with their respective links. I believe that, in these sources, speakers felt more free to write without normative rule pressure and, therefore, they can be interesting sources to indirectly access speakers' linguistic knowledge.

2.5 Summary of the Chapter

In this chapter, I presented the methodological issues relevant to this dissertation. First, I argued that comedy plays are the genre that most faithfully represents oral language by trying to represent the language of the target audience. To provoke the intrinsic laughter of comedies, authors employ themes, music, and language so that the public might identify with the characters. Thus, I showed that all authors chosen had a popular appeal. Furthermore, I presented the stages involved in the creation of the *corpus*, from transcription to morphological annotation, to the search process in the Tycho Brahe *Corpus*. Last but not least, I disclosed other sources of data used in this dissertation. All in all, I presented the three aspects to achieve methodological adequacy in diachronic efforts (66), which I believe were met.

- (66) Methodological Adequacy in Diachronic Research
 - a. Adequate data source
 - b. Adequate periodicity
 - c. Reproducibility assurance

3 The Synthetic Present Tense in BP over Time

Introduction

This chapter investigates the properties of the synthetic present Tense in contemporary and diachronic BP. In Section 3.1, I describe the readings that the synthetic present triggers in contemporary BP and that indirectly function as input for children to entertain grammatical hypotheses about the morphosyntactic features of synthetic present tense triggers. Based on these results, syntactic properties of the contemporary synthetic present Tense are drawn in Section 3.2. The rest of the chapter is devoted to the description of the synthetic present Tense in BP diachrony. I first show the morphosemantic behaviour of the synthetic form over time (Section 3.3) and thereafter, in Section 3.3, I present syntactic properties of the synthetic present Tense throughout BP diachrony.

3.1 The non-temporal property of contemporary Brazilian Portuguese present Tense

Tense is understood here as the grammatical category that codifies the relationship between the time of an event and the moment of speech in Reichenbach's (1947: 287–288) and Hornstein's (1993: 10) sense. For instance, the event of *Marie eating an apple* in (67), respectively, can be temporally located in the past (67-a), where the event takes place before the moment of speech, in the present (67-b), where the event is simultaneous with speech, and in the future (67-c), where the event will take place after the moment of speech.

- (67) a. Marie a mangé une pomme.

 M. have.PRS eat.PTCP an apple
 'M. ate an apple.'
 - b. Marie mange une pomme.

 M. eat.PRS an apple
 'M. is eating an apple.'
 - c. Maria va manger une pomme.

 M. go.PRS eat.INF an apple
 'M. will eat an apple.'

Formally speaking, Reichenbach (1947: 288) derived tenses in languages by the interaction amongst three points, viz. the speech, the event, and the reference points, respectively S, E, and R. First, he proposes that the sentences in (67) could be formalised as the interaction of E with S, where S is a deictic element, anchored by the utterance time: The past Tense is understood as an event that took place before S, whilst the present Tense is an event that is simultaneous with S, and, finally, the future Tense is a situation understood as happening after S. The examples in (68) illustrate these relations, where a comma means simultaneity, and a line, precedence concerning the element to its right.

(68) a. E_S b. S,E c. S_E

Basic combinatorial analysis shows that both points only generate three Tenses. Languages, however, display more than three. To accommodate for that, Reichenbach (1947: 288) introduced another operator, the reference point, R, that sets the reference time of a situation. Thus, to understand the future perfect in (69-a), one must interpret not only that E comes after S but also that E is before 3 o'clock, the R point (69-b). Similarly, the past perfect in (70-a) is interpreted as the event of *John's leaving* happening before speech but also before 3 P.M. (70-b).

- (69) a. John will have left at 3 o'clock.
 - b. S E R
- (70) a. At 3 P.M., John had left the office.
 - b. E_R_S

This basic notion of Tense suffices for the discussion envisaged in this dissertation. I also adopt the assumption that "the present progressive and the simple present are, tense-wise, indistinguishable" (Hornstein 1993: 12) and that "the uses of the simple present tense (...) and the present progressive tense (...), both tenses being considered to refer to present time" (Calver 1946: 321).

Speaking of Tense, contemporary Brazilian Portuguese speakers seldom make use of synthetic lexical verbs to convey this grammatical category: To express temporal notions, BP has largely made use of auxiliary-headed structures (Longo, 1998, Longo & Campos 2002, Reintges & Cyrino 2016: 354, Reintges & Cyrino 2018: 190). Table 3.1 demonstrates that there is an equivalent analytical form for virtually all synthetic forms (cf. Section 4 for the verbal analytic status of BP).

Tense	Synthetic Tense	Analytic Tense
Present	eu falo	eu estou falando
Imperfect	eu falava	eu estava falando
Simple Past	eu falei	-
Future	eu falarei	eu vou falar
Plus-perfect	eu falara	eu tinha falado
Future Perfect	-	eu terei falado
Past Perfect	-	*eu tive falado

Table 3.1: BP Verbal Paradigm (Adapted from Reintges & Cyrino 2018: 191).

In present-day BP, the synthetic forms that have been replaced by analytic ones throughout history no longer necessarily express a temporal reading. According to Cyrino (2013), for instance, the past Tense lost notions of Tense per se and started to trigger only Aspectual notions. The author illustrates this loss in (71-a), where, although faltar 'miss', and adora 'love' are inflected in the past, the interpretation is not past: "there is no beer and [...] the situation will not change" (Cyrino 2013: 313). By the same token, replaced by the analytical structure headed by the auxiliary ir 'go' + infinitive (cf. Araújo-Adriano 2021b), the synthetic future ceased to be used and started to trigger only an idiomatic reading, as in the case of (72).

(71) a. Só **faltou** cerveja nesta festa! only lack.PST beer in-this party. 'Only beer is missing in this party.'

(Cyrino 2013: 312)

b. Eu adorei sua blusa!I love.PST your blouse'I love you blouse.'

(Cyrino 2013: 312)

- (72) a. **Será** o Benedito que não tem um copo limpo nessa casa! be.FUT the B. that no have.PRS a glass clean in-this house 'I cannot believe that there isn't a clean glass in this house!'
 - b. Esse quarto está ao Deus dará. Arruma isso! this bedroom be.PRS to-the God give.FUT organise.IMP it 'This bedroom is a huge mess. Tidy it up!'

Another Tense morphology – the focus of this dissertation – that no longer conveys Tense per se is the synthetic present Tense. As mentioned, present Tense is understood here as the expression of a situation being concomitant with the time of speech – S,R,E – in Reichenbach's (1947: 287–288) and Hornstein's (1993: 10) sense, or in the vein of Comrie (1985: 36), for whom the present Tense is "coincidence of the time of the situation and the present moment". In contemporary BP, such grammatical Tense, which expresses simultaneity in relation to speech, is not expressed by the synthetic form. On the contrary, to express a present Tense interpretation, speakers use the analytic construction headed

by the auxiliary estar 'be' + gerund. This contrast is evident in the examples in (73), where the synthetic form is ungrammatical with the interpretation of simultaneity in relation to speech, that is, with the interpretation of present Tense $per\ se$ (cf. Chapter 4).

- (73) a. Olha mãe, está nevando!
 look mom be.PRS snow.GER
 'Look mom, it is snowing.'
 b. *Olha mãe, neva.
 look mom snow PRS
 - look mom snow.PRS 'Look mom, it is snowing.'

Although I have just claimed that BP is in an advanced process of present Tense analyticisation, this does not mean that the synthetic present morphology is non-existent in the language. As will become clear at the end of Section 3.3, what has become non-existent in BP was the use of the synthetic present Tense with a temporal reading. This means that in BP, the verbal morphology of the contemporary synthetic present triggers several other readings related to Aspect (Mioto 1985, Barbosa & Cruz 2013). In any case, the central point here is that the present Tense morphology does not trigger a present Tense interpretation to Brazilian children.

A syncretism of this nature is observed by Mioto (1985: 16), for example, who argued that the past and future Tenses are dedicated exclusively to conveying a reading of anteriority and posteriority, respectively. Such exclusivity precludes those Tenses from conveying other temporal notions, unlike the present. Indeed, in many languages, the present Tense morphology is not dedicated to conveying only Tense. The crucial point is that some of these languages also convey present Tense through the synthetic present Tense (e.g. It. cosa fai? 'What are you doing?'/'What do you do?'). French is such a language where the synthetic present Tense triggers a generic/habitual reading (74) but is also used with a present Tense interpretation per se (cf. (75)) when the "process expressed is concomitant with the act of enunciation, and it is also added (in the case where it is indeed a statement of the "actual situation", where one must not make noise because children are sleeping) a synchronisation between the process that takes place in the REN [enunciative reference] and the process that takes place in the REX [external reference], the "Hush! reinforcing the indication of this synchronism." (Provôt et al. 2010: 241).⁴⁰

(74) Il mange du pain.
he eats of the brad
a. 'He eats bread.'
b. 'He is eating bread."

(Copley & Roy 2015: 103)

⁴⁰From the original: "le processus exprimé est concomitant à l'acte d'énonciation, et il se rajoute également (dans le cas où il s'agit effectivement d'un énoncé en "situation réelle", où l'on ne doit pas faire de bruit parce que des enfants sont en train de dormir une synchronisation entre le processus qui se déroule dans le REN [Référentiel Énonciatif] et le processus qui se déroule dans le REX [Référentiel Externe], le marqueur « Chut ! » renforçant l'indication de ce synchronisme.)."

(75) Chut! Les enfants dorment!
psiu! the kids sleep
'Shh! The kids are sleeping.'

(Provôt et al. 2010: 241)

(76) a. Je **range** ma chambre en ce moment.

I organise my bedroom in this moment 'I am organising my bedroom right now.'

(Baldé 2013: 56)

Albeit French also has an analytic construction to convey present Tense, viz. être en train de 'lit. be.INF in the midst of', this is extremely marked and rare. Copley & Roy (2015: 103,107), for example, argue that normal present Tense situations cannot be conveyed by the analytic present in French such as (77), and that this construction has a reading in which "the speaker expresses a negative attitude toward the described event", with irony or suspiciousness, as exemplified in (78). Furthermore, research analysing the spontaneous speech of Parisians in the 2000s shows that, compared to the analytic construction, 99,8% of the speakers use the synthetic present morphology to convey a present Tense interpretation (Moreira & Martins 2019: 484).

(77) #Il est en train de pleuvoir. it is in midst of rain 'It's raining.'

(Copley & Roy 2015: 104)

(78) a. Qu'est-ce que tu **fais?** what.is-it that you do 'What are you doing?'

(Copley & Roy 2015: 104)

b. Qu'est-ce que tu **es en train de** faire? what.is.it that you are in midst of do 'What (the hell) are you doing?'

(Copley & Roy 2015: 104)

c. Qu'est-ce que tu **es en train de** nous faire pour le dîner? - On va what.is-it that you are in midst of us do for the dinner we go refl se régaler!
enjoy

'What are you cooking for dinner? – We are going to love it!' (Only negative/ironic)

(Copley & Roy 2015: 107)

Remarkably different from French, BP is very close to English in terms of the present Tense morphology not only triggering different interpretations, as in various languages, but also not triggering proper Tense. In English, as noted by many authors (Calver 1946, Comrie 1985, Cowper 1998), the synthetic present Tense display different aspectual

flavours, such as durative state, habitual, generic, future, and reportive, respectively in (79). Despite these interpretations, the synthetic present Tense does not convey a temporal interpretation *per se*, given the ungramaticality of the examples in (80).

- (79) (Cowper 1998: 1)
 - a. Judith has long hair.
 - b. Ruthie walks to school.
 - c. The lion sleeps during the day.
 - d. Charlotte teaches syntax next term.
 - e. The young boy enters the room. He looks around. He notices the book on the table.
- (80) a. *Mary writes the letter.

(Kamp & Reyle 1993: 537)

b. *Look! Harry runs by the house!

(Michaelis 2020: 175)

c. *The baby walks (as I speak).

(Zagona 2013: 762)

Turning now to Brazilian Portuguese, in the following I present each reading that may be triggered to Brazilian children when the synthetic present morphology is in their Primary Linguistic Data (PLD). Note that the terminology linguists use to refer to Tense, Aspect, and Mood (TAM) are quite distinct. For instance, the habitual Aspect is often referred to as frequentative (Cunha & Cintra 2007: 463), iterative (Brandão 1963: 499), durative (Fatori 2010: 133), habitual (Cunha & Cintra 2007: 463; Brandão 1963: 499), and generic, customary, habituative, nomic, usitative (as found by Carlson 2012: 836). For consistency's sake, I adopted Cinque's (1999) terminology and descriptions for the grammatical categories of TAM.

Contemporary Synthetic Present Tense and the Durative Aspect

The durative Aspect describes a situation that lasts or drags on over time, extending from the past to the present time (Cinque 1999: 99, Comrie 1976: 41, Mendes 2005: 39). Comrie (1976: 41) refers to it as the situation that "lasts for a certain period of time (or at least [is] conceived as lasting for a certain period of time)". Mendes (2005: 38–39), for instance, claims that the durative aspect is symbolically continuous because in Já faz tempo que ela está se dedicando ao balé 'She has been committed to ballet for some time now', the commitment to ballet is true in every moment of an interval, although it is obvious that it does not take place uninterruptedly. In (81), the situation of speaking lasted or dragged on for an hour. Such durative character is often licensed by prototypical adverbs, such as shortly, long, and some frequency adverbs (Cinque 1999: 99, Ilari 2001: 39, Mendes 2005: 39). A contemporary use of BP in which the present synthetic triggers a durative reading is presented in (82).

- (81) João **falou** por uma hora com o Paulo.
 - J. speak.PST for one hour with the P.
 - 'J. spoke with P. for one hour.'
- (82) a. (...) o que seria o meu caso inclusive que **freqüento** um dentista what be.PST the my case including that frequent.PRS a dentist há mais de quinze anos porque... me foi recomendado por have.PRS more of fifteen years because me be.PST recommend.PTCP by pessoas (...)

people

'this would be my case, specially for the fact that I have been going to a dentist for over fifteen years because... I was recommended'

(Inquérito nº 251 – Projeto NURC/SP, from Fatori 2010: 131)

b. Como assim ela **faz** academia desde 2020, sendo que não how this she do.PRS gym since 2020 be.GER that not mudou nada?

change.PST anything

What do you mean, she's been going to the gym since 2020? She hasn't changed a bit!

(2022/21 - Twitter)

Contemporary Synthetic Present Tense and the Generic Aspect

Another reading conveyed by the synthetic present Tense morphology in BP is the generic Aspect. This Aspect is observed in sentences where a certain object presents some inherent property or in which there are absolute truths, such as definitions⁴¹, whose propositions are true at any time (Brandão 1963: 498, Castilho 1968: 103, Travaglia 1994: 90–91, Cinque 1999: 99). The prototypical adverbs of this Aspect are characteristically, prototypically, inherently. Below are some examples of the synthetic present triggering an aspectual generic reading in BP.

- (83) a. Baleias **são** mamíferos. whales be.PRS mamals 'Whales are mamals.'
 - b. Londres **fica** na Inglaterra. London stay.PRS in-the England 'London is in England.'
 - c. 2 mais 2 é igual a 4. 2 plus 2 be.PRS equal to 4 '2 plus 2 equals 4.'
 - d. Pneumoultramicroscopicossilicovulcanoconiótico **é** um doença Pneumoultramicroscopicsilicovulcanoconiotic be.PRS a disease

⁴¹Differently from Fatori (2010), who proposes that there are values of *omnitemporal* and of *definition* for the present, I consider that the generic Aspect includes both values.

causada pela respiração de cinzas de vulcão. cause.PTPC by breathing in volcano of ash.

- 'Pneumoultramicroscopicsilicovulcanoconiotic is a disease caused by breathing in volcano ash.'
- e. Prensa: Aparelho que **prensa** a borracha moldada na amostra de press apparatus that press.PRS the rubber molded in-the sample of tecido dipado.

fabric dipped

'Press: Apparatus that presses molded rubber into a sample of dipped fabric.' (Adapted from Fatori 2010: 147)

Contemporary Synthetic Present Tense and the Habitual Aspect

In addition to the generic and durative readings, the synthetic present also triggers a habitual Aspect interpretation (Travaglia 1994: 92–93, Mendes 2005: 39, Fatori 2010: 99), conveyed when a situation is "characteristic of an extended period of time, [...] viewed not as an incidental property of the moment, but, precisely, as a characteristic feature of a whole period" (Comrie 1976: 27–28). Cinque (1999) suggests that the adverbs usualmente, habitualmente, costumeiramente, geralmente, regularmente are characteristic of the habitual Aspect. For example, this aspect is verified in Italian with the morphology of imperfect past and present (Cinque 1999: 91). In BP, the scenario is very similar, as seen in the Italian translation in (84-b) and in the examples in (85).

- (84) (Cinque 1999: 91)
 - a. L'anno scorso, mi **alzavo** alle 7.
 the=year last me wake-up.IPFV at 7
 'Last year, I (normally) woke up at 7.' (cf. acordava 'wake.IPFV' in Ano passado, eu acordava às 7.)
 - b. Quest'anno, mi alzo alle 7.
 this=year me wake.PRS at 7
 'This year, I (usually) wake up at 7.' (cf. acordo 'wake.PRS' in Eu acordo às 7.)
- (85) a. As pessoas **diziam** que beber leite e chupar manga faz the people say.IPFV that drink.INF milk and eat.INF mango make.PRS mal. bad
 - 'People used to say that drinking milk and then eating mangoes is bad for you.'
 - b. As pessoas **dizem** que beber leite e chupar manga faz the people say.PRS that drink.INF milk and eat.INF mango make.PRS mal. (as pessoas têm o hábito de dizer/regularmente dizem que...) bad
 - 'People (regularly) say that drinking milk and then eating mangoes is bad for you.'

Contemporary Synthetic Present Tense and the Prospective Aspect

Another reading associated with the synthetic present in BP is that of the prospective Aspect, conveying a situation that occurs immediately after speech, that is, a point just before the beginning of the event (Comrie 1976: 64, Cinque 1999: 99, Coghill 2010). In BP, this Aspect is prototypically conveyed by the periphrasis ir 'go' + infinitive⁴², as in (86), but it is also triggered by the synthetic present, as exemplified in (87), in which the speaker announces that she is going to say something and, right after that, says it.

- (86) Eu vou te dizer uma coisa: fica esperto.

 I go.PRS you tell.INF one thing stay.PRS smart
 'I'll tell you something: Wise up.'
- (87) a. Eu te **digo** uma coisa: fica esperto.

 I CL tell.PRS one thing stay.PRS smart
 'I'll tell you something: Wise up.'
 - b. (A mãe falando para os filhos) E digo mais: vocês não vão the mom talk.GER to the kids and tell.PRS more you not go.PRS ganhar mesada este mês.

 win.INF allowance this month

 '(The mother talking to the children) And what's more: You won't get an allowance this month.'

Contemporary Synthetic Present Tense and the Retrospective Aspect

When watching a sports match, it is common to hear the narrator saying verbs in the synthetic present Tense to convey, at first sight, a player's simultaneous actions. The following example illustrates this, where *pega* 'get.PRS' and *chuta* 'kick.PRS' are inflected in the synthetic present Tense. This usage of the synthetic present Tense has been considered an exception to the English synthetic present Tense (Comrie 1985: 37, Zagona 2013: 762, note 11).

(88) Pelé **pega** a bola e **chuta** para o gol.

P. get.PRS the ball and kick.PRS to the goal

'P. catches the ball and kicks it into the goal.'

However, if we think deeply about live sports commentary, we see that the action reported is not precisely simultaneous with the narrator's speech. For the narrator to say (88), the action of *catching* and *kicking* the ball must have already happened. Hence, it seems that the synthetic present Tense used in live sports commentary is very close to what is known in the literature by the retrospective aspect, or immediate past (Cinque 1999: 96), that is, an event that took place a fraction of time before the reference time.

 $^{^{42}}$ There is additional evidence of this Aspect in BP regarding acquisition data. Araújo-Adriano (2019a) shows that Brazilian children first acquire the periphrasis ir + infinitive with an idea of futurity associated with a situation immediately after speech – prospective Aspect –, and then acquire more general notions of future Tense.

This retrospective interpretation can be observed in Japanese -ta form, used to convey an action in the past that is very close to the present time. In this respect, Soga (1983: 57) claims, "Even an event that occurred only seconds before the present moment may be expressed by the -ta form; for example, in Japanese sports broadcasts, the events that have just occurred are reported in this form." This can also be seen, e.g., in Slovene (89), where the suffix -l (and -e for masculine singular in the context of a consonant) of the perfective past tense is used in the case of a reportive present. A similar pattern is found in Mandarin, with the perfective -le marking in sports narration (90).⁴³

- (89) Pravkar/zdajle je fant vzel žogo in jo
 now COP boy.NOM take.PST.PFV ball.ACC and she.ACC
 vrge-l dekletu. Dekle jo je vrglo nazaj.
 throw-PST.PFV girl.DAT girl.NOM she.ACC COP throw.PST.PFV back
 'Right now the boy takes a ball and throws it to the girl. The girl throws it back.'
 (Fortuin 2019: 26)
- (90) a. zhe-ge qiu chuan-de shaowei da-**le** yidian. this-CL ball pass-DEGREE slightly wide-ASP a-bit "The ball was passed a bit too far."
 - b. aiyo, menjiang Karius chuixan-le shiwu, qiu jin-le! Exclamation goalkeeper K. occur-ASP foul ball enter-ASP "Oh, the goalkeeper K. made a foul. It's a goal!"

Hence, it seems that the synthetic present Tense used in (88) does not explicitly convey a present Tense, so much so that, along with the cross-linguistic evidence on this non-present interpretation shown above, we also observe alternation between the present (in bold) and past (underlined) morphology in football live commentary BP.

- (91)Hernandes toma distância para fazer cobrança, o perigo take.PRS distance to make.INF the kick. the danger decurva, bateu, afastaaumenta. a[...] zaqa, increase.PRS, from curve, hit.PST, remove.PRS the defender, [...] Hugo, é Gooooooolllllllllllllcruzou, bateudominate.PST, cross.PST, beat.PST H., be.PRS goal qoooooollllllllllll do São Paulo. from São Paulo 'H. takes distance to kick, the danger increases, from a curve, hit, removes the defender, [...] dominated, crossed, beat H., it is a São Paulo goal goal! (Narration of the match between Vitória and São Paulo, broadcast through Bandeirantes radio station in São Paulo, 14/11/2009, adapted from Fatori 2010: 120)
 - b. vem o Cleber, o lateral do time do Inter aí Cleber come.PRS the C., the full-back of-the team of I. there C.

⁴³I am extremely grateful to Liu Yang for offering me these data on the occasion of the Syntax Lab (University of Cambridge), where I presented results from this dissertation.

coloca bola pelo meio campo, lateral cobrada, já put.PRS ball on-the midfield throw-in already take.PART, encostapor ali, Sandro toca de primeira pro Alexsandro, ele approach.PST by there, S. pass.PRS of first to A., he recebeu. Danilo levantou pra dentro da área, chance, o receive.PST, D. shot.PST to inside of-the penalty-area, chance the Daniloooooooo qoooooollllllllllllll é doInternacional (...) goal be.PRS from I. 'C. comes, the sider of I., here comes C., put the ball by the middle field, sider already taken. (Narration of the match between Santos

(Narration of the match between Santos and Internacional, broadcast through Eldorado radio station in São Paulo, 15/11/2009, adapted from Fatori 2010: 120)

Therefore, the synthetic present Tense mainly used in live sports commentary seems not to depart from the general pattern: Despite their present Tense morphology, they do not encode a present Tense interpretation and, analogous to other lexical verbs, they trigger a (retrospective) Aspect reading.

Contemporary Synthetic Present Tense and the Imperative Mood

In addition to the reading above, the synthetic present morphology also triggers an imperative Mood reading. It is known that in some varieties of BP lost not only the 2nd person pronoun - viz. tu – but also the 2nd person verbal agreement. Hence, when they refer to the receiver, the verb is inflected in the 3nd person. Disregarding the traditional grammar criticising the usage of the 2nd person instead of the 3rd, as for the imperative, one would expect that verbs in the affirmative imperative directed to the receiver – the 2nd person – would be used in the 3rd person imperative form (that is, neutralised with the subjunctive), as in (92): The normative rules demands the use of the 3rd person imperative forms following the subjunctive template, as the imperative in Me ajude! 'help.IMP me' as in the subjunctive in Eu espero que ele ele

(92) $Me \ ajude,$ por favor! a. me help.SBJV please 'Help me, please!' (cf. que ele ajude 'that he help.SBJV') João, me **faça** b. um cafezinho? me make.SBJV a coffee 'J., make me a coffee?' (cf. que ele faça 'that he make.SBJV') Abralogo o presente! c. open.SBJV soon the gift 'Open the gift fast!' (cf. que ele abra 'that he open.SBJV')

Speakers, however, tend not to use the prescribed, subjunctive-identical form, but rather, for the 3rd person affirmative imperative, the synthetic present form (93), re-

spectively compared to (92) (cf. also Scherre 2007: 192). Thus, although BP has lost the 2nd person pronoun, agreeing the verb in the 3rd person, the imperative form used in (93) is not the 3rd person affirmative imperative form (neutralised with the 3rd person subjunctive), but that of the synthetic present. This suggests that the synthetic present morphology also triggers an imperative interpretation.

```
(93)
            Me ajuda, por
                                favor!
            me help.PRS please
            'Help me, please!' (cf. ele ajuda 'he help.PRS')
            João, me faz
                                 um cafezinho?
        b.
                  me make.PRS a
                                   coffe
            'João, make me a coffee?' (cf. ele faz 'he do.PRS')
            Abre
                       logo o
                               presente!
            open.PRS soon the gift
            'Open the gift fast!' (cf. ele abre 'he open.PRS')
```

This tendency is not exclusive to the affirmative imperative. Although normative rules dictate that its form is identical to the present subjunctive in all persons and numbers, as in (94), again, speakers tend to use the present Tense morphology form (95)⁴⁴.

- (94)Não **deixe** loucapia! a. nanot let.SBJV porcelain in-the sink 'Do not let dishes in the sink!' (cf. que ele/tu deixe 'that he/you let.sbjv') Não **coma** comida gordurosa! b. not eat.SBJV food fatty 'Do not eat fatty foods!' (cf. que ele/tu coma 'that he/you eat.SBJV') Não **peca** dinheiro para tua avó! c. not ask.SBJV money to-the your grandma
- 'Do not ask money to your grandmother!' (cf. que ele/tu peça 'that he/you ask.SBJV')

 (95) a. Não deixa louça na pia!
- no let.PRS porcelain in-the sink
 'Do not let dishes in the sink!' (cf. ele/tu deixa 'he/you let.PRS')
 b. Não **come** comida gordurosa!
 - not eat.PRS food fatty
 'Do not eat fatty foods!' (cf. ele/tu come 'he/you eat.PRS')
 - c. Não **pede** dinheiro para tua avó!
 not ask.PRS money to-the your grandma
 'Do not ask money to your grandmother!'(cf. ele/tu pede 'that he/you ask.PRS')

⁴⁴Given that an imperative cannot occur as an embedded clause (Han 1999: 8), the fact that all examples in (93) and (95) cannot be embedded is additional evidence for the usage of the synthetic present standing in for the imperative.

Contemporary Synthetic Present Tense and the Irrealis Mood

Moreover, another verbal form whose value has been conveyed by the synthetic present morphology is the subjunctive, referred to as the irrealis Mode (Cinque 1999: 88) to express uncertainty in relation to a proposition – a prototypical property of the subjunctive. In the following, we can observe that both the past subjunctive in (96) and the future subjunctive in (97), but also the present subjunctive⁴⁵ in (98) can be conveyed by the verbal morphology of the synthetic present.

(96) a. É porque eu não tenho [ficante], porque se eu **tenho**, eu be.PRS because I not have.PRS date because if I have.PRS I ia tirar e ainda ia postar.

go.PST.IPFV take.INF and still go.PST.IPFV post.INF
'It's because I don't have a date, because if I had, I would take a phot and post it.' (cf. tivesse in se eu tivesse 'if I have.COND')

(2022/21 - Twitter)

b. Se eu **encontro** com ela ontem, eu iria ficar admirando a if I meet.PRS with her yesterday I go.COND stay.INF admire.GER the noite todan night entire

'If I had met her yesterday, I would be admiring her the whole night.' (cf. encontrasse in se eu encontrasse 'if I meet.COND')

(2020/21 - Twitter)

(97) a. Se eu **vejo** isso amanhã, capaz de eu vomitar de tanto nojo if I see.PRS this tomorrow perhaps of I vomit.INF of so disgust 'If I see this tomorrow, it possible that I will vomit in disgust.' (cf. *vir* in se vir isso amanhã 'if see.FUT.SBJV this tomorrow')

(2022/21 - Twitter)

b. Imagina se eles me chamam pra entrevista?
imagine.PRS if they me call.PRS to-the interview
'Imagine if they call me to the interview?' (cf. chamarem in se eles me chamarem 'if they call.FUT.SBJV me')

(2016/21 - Twitter)

(98) a. Será que ele vai gostar que eu o **chamo** de anjinho de be.FUT that he go.PRS like.INF that I CL.3SG call.PRS of angel of luz?

light

'Will he like me calling him angel's light?' (cf. chame in que eu o chame 'that I him call.PRS.SBJV')

(2021/21 - Twitter)

⁴⁵It is worth noting that this tendency is not spread to the whole country. More diatopic investigations are needed to understand the general picture of the present subjunctive being neutralised by the synthetic present.

b. Quer que eu mando a foto de novo?

want.INF that I send.PRS the picture again

'Do you want me to send the picture again?' (cf. mande in que eu mande 'that I send.PRS.SBJV')

(2022/21 - Twitter)

Contemporary Synthetic Present Tense and the Past Tense

Finally, the synthetic present also triggers Temporal notions, such as the past and the future Tenses, as already attested before. Starting with past Tense, the synthetic present can be used to express a situation that is located before the moment of speech. Much is discussed about the historical present, that is, the present that is used to report some event in the past, easily seen in journalistic materials. Regarding headlines, some authors argue that the historical present is not a past event, since the sender psychologically transports themselves to the past, making the event simultaneous to speech, that is, a case of present Tense. However, given the commutation of this usage with a verb in the past, as signaled by Fatori (2010: 86), the argument that the historical present triggers a reading of simultaneity, not the past, is problematic. In fact, the very value of the present morphology used with past meaning is indeed an interpretation of precedence to the moment spoken: Although the headline of the news of the death of Queen Elizabeth is conveyed by the synthetic present, in the same article, in the body of the news story itself, the same event is triggered by past morphology. From this, I conclude that this type of usage is, in fact, a past Tense.

- (99) a. Rainha Elizabeth II, a monarca britânica mais longeva da história, queen E. the monarch British longest-serving of-the history morre aos 96 anos die.PST to-the 96 years
 - 'Queen E. II, the longest-serving British monarch in history, died aged 96. '46 b. (...) a Rainha Elizabeth II morreu nesta quinta-feira (8), aos 96 the queen E. die.PST on-this Thursday 8 to-the 96 anos, no castelo de Balmoral, na Escócia. years in-the castle of B. in-the Scotland 'Queen E. II died on this Thursday (8), aged 96, in Balmoral's castle, in Scotland.'47

Albeit the synthetic present Tense morphology conveys a past Tense interpretation, this usage is extremely specific and contextual, from where children arguably do not take any cues/triggers to build their grammar.

 $^{^{46} \}texttt{https://g1.globo.com/mundo/noticia/2022/09/08/rainha-elizabeth-ii-morre-aos-96-anos.ghtml}$

 $^{^{47}} https://g1.globo.com/mundo/noticia/2022/09/08/rainha-elizabeth-ii-morre-aos-96-anos.ghtml$

Contemporary Synthetic Present Tense and the Future Tense

Additionally, to convey a situation that takes place after the moment of speech – future Tense –, speakers can also use the synthetic present (Thomas 1969, Gibbon 2000, Malvar 2003, Oliveira 2006, Araújo-Adriano 2019b), as exemplified below.

- (100) a. Meus pais **vão viajar** para a Europa no fim do ano. my parents go.FUT travel.INF to the Europe at.the end of.the year 'My parents will travel to Europe at the end of the year.'
 - b. Meus pais viajam para a Europa no fim do ano.

 my parents travel.PRS to the Europe at the end of the year.'

 'My parents will travel to Europe at the end of the year.'

This future use, however, seems not to be triggered by the present Tense morphology alone. Some grammarians already pointed out that the synthetic present can trigger a future Tense interpretation, but this reading is only achieved in the presence of a temporal (e.g. $\underline{Amanh\tilde{a}}$ mesmo vou para Belo Horizonte e lá pego o avião do Rio 'Tomorrow I go to Belo Horizonte, and there I take a plane to Rio' Cunha & Cintra 2007: 463), such as $amanh\tilde{a}$, em X (e.g. em julho, 'in July', no fim do ano, 'at the end of the year', nas férias 'on vacation'). Additionally, linguists analysing spoken Brazilian Portuguese also show that "The simple present may be used whenever the time of action is made clear by an adverb of time, by any other expression of time, or by the context" (Thomas 1969: 169). For instance, if there is no adverbial expression in 101, the interpretation triggered is no longer future, but habitual.

(101) Meus pais **viajam** para a Europa. my parents travel.PRS to the Europe 'My parents travel to Europe'.

By the same token, Gibbon (2000: 67) notices that it is not always that the synthetic present morphology triggers a future interpretation. She illustrates this with the example in (102), pointing out that if one "replaces the periphrastic form by the indicative present, the action becomes either habitual or triggers the moment of speech" (Gibbon 2000: 67).

(102) (Gibbon 2000: 67)

Tantas pessoas aí, velhas, que às vezes venderam um terreno so.many people there old that some times sell.PST land grande, uma qualquer propriedade pra viver de juro e agora, como big property to live.INF of fees and now viver? que **vai** be.PRS that go.PRS live.INF 'So many people out there, old people, who sometimes might have sold a large plot of land, some property to live off the interest and now, how are

⁴⁸From the original: substitui a forma perifrástica pelo presente do indicativo, a ação passa a ser ou habitual ou indica o próprio momento de fala.

- they going to live?'
- Tantas pessoas aí, velhas, que às vezes venderam um terreno so.many people there old that some times sell.PST grande, uma qualquer propriedade pra viver de juro e agora, como big any property to live.INF of fees and now é que **vive**? be.PRS that live.PRS 'So many people out there, old people, who sometimes might have sold a large plot of land, some property to live off the interest and now, how do they live?

Considering then that the synthetic present Tense with a future interpretation reaches the highest relative weight in the presence of a future adverb (Malvar 2003: 119-27, Oliveira 2006: 188), I assume that the synthetic present Tense itself does not work as a trigger of future Tense to the BP child.

Contemporary Synthetic Present Tense and the Present Tense

Finally, when it comes to the reading of present Tense per se, the morphology of the synthetic present Tense does not convey simultaneity in relation to speech in contemporary Portuguese, as mentioned before, except for some very restricted cases to which I will turn. Thus, to convey a situation of present Tense per se, such as the event of a mobile phone ringing in (103), present-day BP speakers do not use the present synthetic morphology, but the analytic construction headed by auxiliary estar.PRS + gerund (está chovendo 'be.PRS rain.GER'). In other words, under the assumptions on the Tense presented before, we see in contemporary BP that the synthetic present Tense does not trigger a present temporal interpretation.

- (103) a. O teu celular **está tocando**. the your cellphone be.PRS ring.GER 'Your mobile phone is ringing.'
 - b. *O teu celular toca.
 the you cellphone ring.PRS
 'Your mobile phone is ringing.'

As showed, in contemporary BP, the synthetic present triggering a present Tense interpretation is "one of the least productive semantic values" (Fatori 2010: 195). There are, however, some verbs that seem to trigger an interpretation that the event is simultaneous to speech. I will discuss them now.

Apart from the grammatical Aspect I have adopted, which codifies durative, prospective, amongst other Aspectual flavours (cf. Cinque 1999), one might consider the common idea that verbs have different inner aspectual interpretations. The term inner aspect refers to the idea that predicates and their argument frame, to use Bertinetto's (2001: 5) term,

⁴⁹From the original: "um dos valores semânticos menos produtivos."

have substructures, that is, they can convey a completed event, with an end-point – a telic predicate – or an incomplete event, with no end-point – an atelic predicate. The inner Aspect differs from the outer Aspect because the latter concerns how inflection encodes the internal temporal point of view, that is, if the event is either complete – perfective Aspect – or incomplete – imperfective Aspect.

Observing the interaction between the synthetic present Tense and inner Aspect, we see a contrast amongst different aspectual predicates. The following examples show that in contemporary BP analyticisation comprises activity (104), achievement (105), and accomplishment (106) – eventive predicates. Sentences in the a-line below are only grammatical with some aspectual interpretation that I have presented so far. For instance, referring to (104), one might know that Mary takes dance classes and say that A Maria dança 'Mary dances', a habitual interpretation. These predicates can also have interpretations other than Aspect. For instance, future: Sentences (104-a) and (105-a) are completely grammatical with a future interpretation (e.g. A Maria dança no sábado 'Mary will dance on Saturday'/A Maria chega na Inglaterra, eu acho que domingo 'Mary will arrive in England, I think, on Sunday'). The interpretation that is not achieved, however, is of present itself, conforming to the general pattern I presented: This temporal reading is only triggered with the present analytic construction in the b-line.

(104) Activity

- a. *Olha lá! A Maria dança. look.IMP there the M. dance.PRS 'Look! M. is dancing.'
- b. Olha lá! A Maria está dançando. look.IMP there the M. be.PRS dance.GER 'Look! M. is dancing.'

(105) Achievement

- a. *A Maria chega na Inglaterra. the M. arrive.prs in=the England 'Look! M. is arriving in England.'
- b. A Maria está chegando na Inglaterra. the M. be.PRS arrive.PRS in=the England 'Look! M. is arriving in England.'

(106) Accomplishment

- a. *Olha lá! A Maria **pinta** a casa. look.IMP there the M. paint.PRS the house 'Look! M. is painting the house.'
- b. Olha lá! A Maria está pintando a casa. look.IMP there the M. be.PRS paint.GER the house 'Look! M. is painting the house.'

When considering stative predicates, however, the picture is somewhat different: Contrary to eventive predicates that must not appear in the synthetic present Tense, stative predicates must be in a synthetic present tense morphology sentence, as the examples in (107) show. Hence, at first sight, statives predicates depart from the stable grammar of BP^{50} .

(107) Stative

- a. Londres **fica** na Inglaterra. London stay.PRS in-the England 'London is in England.'
- b. *Londres está ficando na Inglaterra.

 London be.PRS stay.PROG in-the England
 'London is in England.'
- c. Vixi, eu só **tenho** 5 reais na carteira.

 Oh my Gosh! I only have PRS 5 reais in-the wallet

 'Oh my gosh, I only have 5 reais in my wallet.'
- d. *Vixi, eu só estou tendo 5 reais na carteira.

 Oh my Gosh! I only be.PRS have.PROG 5 reais in-the wallet

 'Oh my gosh, I only have 5 reais in my wallet.'

In summary, the pattern is as follows: Accomplishment, activity, and achievement predicates are incompatible with the synthetic present Tense, whilst stative predicates are not. Note that the synthetic present verb is only incompatible with eventive predicates in the *temporal* interpretation; they are fine with the other readings I presented heretofore, as I showed regarding (104-a), (105-a), and (106-a). Under this respect, Schmitt (2001: 436) argues that the present simple in BP (and English) forces a stative, habitual, and iterative reading. So much so that when someone says (108-a), the only interpretation triggered is that of stative: Pedro can sing and/or Pedro is a singer. Likewise, in (108-b), a habitual interpretation is forced, not that of present Tense *per se*.

(108) (Schmitt 2001: 436)

- a. Pedro canta (*neste momento)
 P sing.PRS in=this moment
 'P. sings (*at this moment).'
- b. Pedro canta uma ária. (#neste momento)
 P sing.PRS an aria at=this moment
 'P. sings an aria (#right now).'

A reasonable question, then, is whether stative verbs also trigger a present Tense interpretation, being an exception to the main pattern attested, or if they also trigger other readings. Despite the various and different definitions of stative predicates in the literature, they all have in common the durative and endurance hints flavour. Hence, when someone says that "John owns a horse for a week, or Mary knows French there is no moment through the week that during which these states do not hold in just the

 $^{^{50}}$ To the interaction of progressive and aspectual class, I refer the reader to Lunguinho & Bertucci (2013).

same way as every other" (Smith 1997: 32). This leads Smith (1997: 32) to define statives as "situations which hold for a moment or an interval", with "temporal features [Static], [Durative]". In the same vein, for Vendler (1967: 103–7), "... states last for a period of time", and "involve time instants in an indefinite and nonunique way". This durative interpretation intrinsic to stative predicates is also very clear in Schmitt (2001: 407), who claims that statives are "predicates that involve the continuation of some condition rather than the change of some condition". Considering the above, verbs in stative predicates fall into the same group of typical lexical verbs: Albeit inflected in the present Tense morphology, they do not seem to trigger a temporal interpretation but an aspectual one, viz. durative⁵¹.

I now move to another context where the synthetic present verb, differently from the cases before, does not trigger an Aspect interpretation but does trigger Tense per se. They are verbs that reify their action when uttered, where the event denoted by the verb is simultaneous with speech, that is, "the time occupied by the report is exactly the same as the time occupied by the act" (Comrie 1985: 37). Apparently, Austin (1962: 60) was the first to use the term *Performative Verbs* to characterize "something which is at the moment of uttering being done by the person uttering", as in (109).

- (109) a. Eu vos **declaro** marido e mulher. I CL declare.PRS husband and wife 'I now pronounce you husband and wife.'
 - b. Eu **juro** que não fui eu! I swear.PRS that not be I 'I swear it wasn't me.'

Although Austin claimed that the simple present is somehow inherent to performative verbs in English (Austin 1962: 56), this correspondence is not cross-linguistically attested. Investigating 106 languages, Fortuin (2019) attests to several morphological ways to use performative verbs:

(110) TAM and Performative Verbs in languages of the world (Adapted from Fortuin 2019: 40–41)

b) Simple present, imperfective present, (non-tensed) imperfective c) Perfective present (in Slavic only) d) Perfective past, perfect, perfective (in languages without tense) e) Resultative/Passive f) Progressive g) Future tense h) Mood and evidentiality markers i) Other 75 8 8 11 15 16 17 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	a) Verb not marked for TA(M) (lgg. without tense and gramm. aspect)	8	
d) Perfective past, perfect, perfective (in languages without tense) e) Resultative/Passive f) Progressive g) Future tense h) Mood and evidentiality markers 39 8 8 8	b) Simple present, imperfective present, (non-tensed) imperfective	75	
e) Resultative/Passive 8 f) Progressive 8 g) Future tense 11 h) Mood and evidentiality markers 8	c) Perfective present (in Slavic only)	5	
f) Progressive 8 g) Future tense 11 h) Mood and evidentiality markers 8	d) Perfective past, perfect, perfective (in languages without tense)	39	
g) Future tense 11 h) Mood and evidentiality markers 8	e) Resultative/Passive	8	
h) Mood and evidentiality markers 8	f) Progressive	8	
, v	g) Future tense	11	
i) Other	h) Mood and evidentiality markers	8	
	i) Other	4	

 $^{^{51}}$ It is worth noting that stative predicates combined with adverbs such as now (Não tenho dinheiro agora 'lit. (I) not have.PRS money now') can trigger a present Tense interpretation. It is questionable, however, whether this interpretation comes from the predicate itself, the adverb, or the combination of both.

As we can see in (110), most performative verbs are conveyed by the simple present, as generalised by Austin (1962). What is essential for our discussion, however, is languages fitting into f- and b-lines. Fortuin (2019: 34) notes that a progressive usage of performative verbs is customarily marked in languages like English, with an emphasising effect: This is the case of the performative promise that can be used in the progressive to "emphasize the validity of the promise as not being linked solely to the moment of speech, for example: We won't leave, I'm promising that (cf. You can be sure of that)". Notwithstanding, in Chichewa, performative verbs can be used in the simple present or progressive via the present progressive suffix -ku without any markedness distinction.

- (111) Chichewa (Fortuin 2019: 34)
 - a. Ndi-lonjez-a **ku**-bwera mawa. 1SG.SBJ-promise-.FV INF-come tomorrow 'I promise to come tomorrow.'
 - b. Ndi-ku-lonjez-a ndi-ku-pedz-a mawa. 1SG.SBJ-PRS-promise-FV 1SG.SBJ-2SG.OBJ-find-FV tomorrow 'I promise to come (lit. find you) tomorrow.'

Unlike the English counterpart exposed above, in BP, however, to utter a performative verb with some emphasising, the progressive form is at least odd (112-a): The natural way to do that in BP is through the synthetic present Tense, with some intensifying expression if an emphatic value is intended, such as *imensamente* 'immensely' (112-b), do fundo do meu coração 'from the bottom of my heart' (113).

- (112) a. A gente não vai embora. Eu (*/#estou te prometendo) te the we not go.PRS away I be.PRS CL promise.GER you prometo!

 prometo!
 promise.PRS
 - 'We are not leaving! I promise you.'
 - b. Muito obrigado pelo presente, eu (*estou te agradeçendo) te much thank by-the gift I be.PRS you thank.GER you agradeço imensamente.

 thank.PRS immensely
 - 'Thank you very much for the gift, I thank you immensely.'
- (113) Eu te juro do fundo do meu coração/por tudo que I you swear.PRS from deep of-the my heart/by everything that é mais sagrado/pela minha mãe morta!

 be.PRS more sacred/by-the my mom dead 'I swear to you!'

Note that a progressive performative verb can be used only after the act was performed as if describing the act but never as the performative act itself. The contrast in (114) suggests this pattern: The verb that performs the action (in bold) is in the synthetic present tense, while the verb that merely describes the act can appear in the progressive

form (underlined), but not the opposite.

(114) a. Eu te **perdoo** da traição. Mas eu só <u>estou</u> te <u>perdoando</u>
I you forgive.PRS of-the betrayal but I just be.PRS you forgive.GER

porque eu te amo.
because I CL love.PRS
'I forgive you for the affair. But I'm only forgiving you because I love you.'
b. *Eu estou te perdoando da traição. Mas eu só te <u>perdoo/</u>
I be.PRS CL forgive.GER of-the betrayal but I only you forgive.PRS

<u>estou</u> te <u>perdoando</u> porque eu te amo.
be.PRS CL forgive.GER because I CL love.PRS

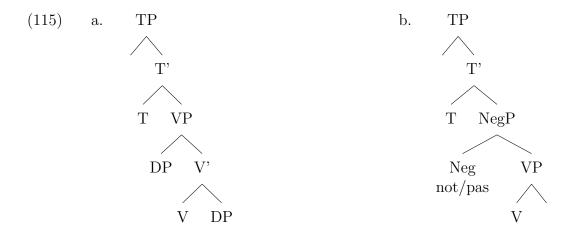
Based on that, performative verbs seem to be the only kind of verb that does convey present Tense, given that its action is conveyed simultaneously with speech. Performative verbs, then, are a small set of ordinary lexical verbs that license a present Tense interpretation, departing from the general pattern detected.

Summary of the Section

This section has described the usages of the synthetic present Tense in contemporary BP. I showed that the synthetic present morphology in the Primary Linguistic Data of BP children do not trigger a present Tense interpretation per se, but do trigger (i) durative, prospective, generic, habitual, retrospective Aspect, (ii) conditional, imperative Mood. I conclude, then, that when children hear any lexical verb in the present Tense morphology, the evidence they have is of Aspect, Mood interpretation, but not that of present Tense. This also includes aspectual predicates. Albeit verbs in stative predicates are synthetic present verbs, they do not trigger a temporal interpretation, but some sort of durative Aspect likewise. In contemporary BP, the only exception to this seems to be performative verbs, that do trigger a present Tense interpretation per se.

3.2 Syntactic Properties of BP Contemporary Synthetic Present Tense

The aim of this section is to explore some of the syntactic properties of lexical verbs in BP present-day, such as verb movement. After Emonds's (1978) Pollock's (1989), and Belletti's (1990) works on the difference between French and English under Generative Grammar, scholars started to employ the position of adverbs as evidence pf the absence versus the presence of verb movement across languages. From the basic assumption in (115-a) that the verb is based-merged with their arguments in the verb phrase – VP –, Pollock (1989) suggested that some adverbs and negations are adjoined to VP (115-b), thus the relative order to those adverbs and negations in (117) and (116) could be interpreted as verb movement.



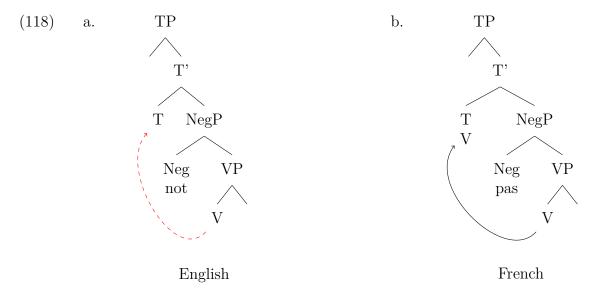
- (116) a. *John likes **not** Mary.
 - b. Jean (n') aime **pas** Marie.

(Pollock 1989: 367)

- (117) a. John often kisses (*often) Mary.
 - b. Jean (*souvent) embrace souvent Marie.

(Pollock 1989: 367)

The verb to the right of these fixed elements such as the negation *not* in English, but to the left of *pas* 'not' in French, was analysed in terms of verb movement to inflection: The absence of verb movement in English – represented by red dashed lines in (118-a) – derived the pre-verbal order of fixed elements, whilst the presence of verb movement in French (118-b) derived their post-verbal position.



From these contributions, Cinque (1999: 3–43) demonstrated that adverbs are cross-linguistically ordered and suggested a fixed hierarchy of around 30 adverbs. For the author, each functional projection would bear in its Specifier a semantically associated adverb

(Cinque 1999: 86). Thus, the relative order of those fixed adverbs in relation to the verb can shed light on the exact landing position of the verb when moved.

(119) The Universal Hierarchy of Functional Projections of the IP (Cinque 1999: 106, Ledgeway & Lombardi 2005: 81, Cinque 2006)

 $\begin{aligned} &\mathbf{HIGH:} \ [frankly \, Mood_{SpeechAct} > [luckily \, Mood_{Evaluative} > [allegedly \, Mood_{Evidential} > [probably \, Mod_{Epistemic} > [once \, T_{Past} > [then \, T_{Future} > [perhaps \, Mood_{Irrealis} > [necessarily \, Mod_{Necessity} > [possibly \, Mod_{possibility} > [usually \, Asp_{Habitual} > [finally \, Asp_{Delayed} > [tendentially \, Asp_{Predispositional} > [again \, Asp_{Repetitive(I)} > [often \, Asp_{Frequentative(I)} > [willingly \, Mod_{Volition} > [quickly \, Asp_{Celerative(I)} > \\ &\mathbf{LOW:} \ [already \, T_{Anterior} > [no \, longer \, Asp_{Terminative} > [still \, Asp_{Continuative} > [always \, Asp_{Perfect} > [just \, Asp_{Retrospective} > [soon \, Asp_{Proximative} > [briefly \, Asp_{Durative} > [(?) \, Asp_{Generic/Progressive} > [almost \, Asp_{Prospective} > [suddenly \, Asp_{Inceptive} > [obligatorily \, Mod_{Obligation} > [in \, vain \, Asp_{Frustrative} > [(?) \, Asp_{Conative} > [completely \, Asp_{SgCompletive(I)} > [everything \, Asp_{Repetitive(II)} > [well \, Voice > [early \, Asp_{Celerative(II)} > [? \, Asp_{Inceptive(II)} > [again \, Asp_{Repetitive(II)} > [often \, Asp_{Frequentative(II)} > ... \\ & = [allowed] \end{tabular}$

It is worth noting that, with Pollock (1989) and before syntactic cartography proper, it was assumed that the finite lexical verb in English did not move, given its order in (120). With the enterprise of Cartography (Cinque 1999), this pattern became better understood: The verb in English does move, but to a lower projection, as shown by the fact that it is found to the left of well (cf. Cinque 1999: 214, Tescari Neto 2012: 12, Schifano 2018: 152–153). The data below suggest the verb in English has to move to the left of the low adverb well, semantically associated with VoiceP (cf. hierarchy in (119)), which seems to show that an ordered hierarchy as proposed by Cinque (1999), the one I adopt, works well as a more accurate diagnosis concerning verb movement:⁵²

(120) John (*well) sings well.

To plot the position of the lexical verb within the structure, I adopted the adverbial hierarchy given in (121), a Portuguese version of (119), based on Tescari Neto (2019: 3567).⁵³ The height of verb movement was determined, depending upon the placement of the verb with respect to these fixed and ordered adverbs. Based on the order, the precedence of the verb regarding the adverb, e.g., frequentemente '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)}), for the sake of generating the V_ADV order. Contrastingly, if the verb is found to the right of the adverb, which yields the ungrammatical order ADV_V, one could say this represents an instance of lower or no movement. In light of these assumptions, we are now in a position to investigate lexical

 $^{^{52}}$ Roberts (2017a: 322) argues that it is actually not the verb that moves but the whole vP with its object in English. Either way, the discussion about whether the verb or the vP moves was only possible on the grounds of fixed and ordered adverbs, like the proposal by Cinque (1999) and earlier works since Emonds (1978), Pollock (1989), Belletti (1990).

⁵³The author, in turn, based his work on Tosqui & Longo (1999), Sant'Ana (2007), Tescari Neto (2013) to formulate the BP Hierarchy.

verb movement in BP. It is worth recalling that I consulted speakers who were asked to judge the grammaticality of the position of the verb with respect to adverbs in sentences they were presented with.

(121) The Universal Hierarchy of Functional Projections of the IP – Brazilian Portuguese version (Tescari Neto 2019: 3567)

HIGH: [francamente Mood_{SpeechAct} > [surpreendentemente Mood_{Mirative} > [felizmente Mood_{Evaluative} > [evidentemente Mood_{Evidential} > [provavelmente Mod_{Epistemic} > [uma vez T_{Past} > [então T_{Future} > [talvez Mood_{Irrealis} > [necessariamente Mod_{Necessity} > [possivelmente Mod_{possibility} > [normalmente Asp_{Habitual} > [finalmente Asp_{Delayed} > [tendencialmente Asp_{Predispositional} > [novamente Asp_{Repetitive(I)} > [frequentemente Asp_{Frequentative(I)} > [de/com gosto Mod_{Volition} > [rapidamente Asp_{Celerative(I)} >

 $\begin{array}{l} \textbf{LOW}: \ [j\'{a}\ T_{Anterior} > [n\~{a}o...mais\ Asp_{Terminative} > [ainda\ Asp_{Continuative} > [sempre\ Asp_{Perfect} > [apenas\ Asp_{Retrospective} > [(dentro)\ em\ breve\ Asp_{Proximative} > [brevemente\ Asp_{Durative} > [(?)\ Asp_{Generic/Progressive} > [quase\ Asp_{Prospective} > [repentinamente\ Asp_{Inceptive} > [obrigatoriamente\ Mod_{Obligation} > [\`{a}\ toa\ Asp_{Frustrative} > [(?)\ Asp_{Conative} > [completamente\ Asp_{SgCompletive(II)} > [tudo\ Asp_{PlCompletive} > [bem\ Voice > [cedo\ Asp_{Celerative(II)} > [do\ nada\ Asp_{Inceptive(II)} > [de\ novo\ Asp_{Repetitive(II)} > [frequentemente\ Asp_{Frequentative(II)} > ... \\ \end{array}$

Starting with the very low adverbs, e.g., de novo 'again', bem 'well', completamente 'completely', à toa 'in vain', the position of the verb to their left suggests that lexical verbs must minimally leave vP/VP in BP (cf. also Galves 1993, 1994, 2001, Costa 1996, Cyrino 2013, Tescari Neto 2013, 2020, 2019) to precede à toa 'in vain'.

- (122) Ontem **choveu** de novo (*choveu). yesterday rain.PST again 'Yesterday, it rained again.'
- (123) Minha mãe **cozinha** bem (*cozinha). my mom cookrain.PRS well 'My mom cooks well.'
- (124) João acabou completamente (*acabou) o seu trabalho.

 J. finish.rain.PST completely the his job

 'J. has completely finished his work.'

 (Adapted from Galves 2001: 109, Tescari Neto 2019: 3569)
- (125) O José **fez** à toa (*/??fez) seu trabalho. the J. do.rain.PST in vain his job 'J. did is job in vain.'

(Adapted from Tescari Neto 2019: 3569)

Concerning the following adverb, lexical verbs can either precede or follow *obrigatoriamente* 'obligatorily' (126). Hence, as Tescari Neto (2019: 3570) argued, BP lexical verbs must unavoidably move to the left of *in vain* (*viz.* Mod_{Obligation}), but no further. Another evidence

for that concerns the position of a higher adverb than *obrigatoriamente*, such as *quase* 'almost'. As shown by Figueiredo Silva (1996: 51), the lexical verb in a precedence position regarding *quase* generates an ungrammatical sentence (127). This pattern conforms to the claim that currently, BP has low verb movement (128), where the black dashed line means optional movement, and the red dashed line, prohibited verb movement.

(126) O João **fará** obrigatoriamente **fará** o seu trabalho. the J. do.FUT obligatorily do.FUT the his job 'J. will obligatorily do his job.'

(Adapted from Tescari Neto 2019: 3570)

(127) O João (*perdeu) quase **perdeu** a cabeça. the J. almost lose.PST the head 'J. lost almost his head.'

(Adapted from Figueiredo Silva 1996: 51)

(128)Asp_{Prospective}P quase $Asp_{Prospective}^{0}$ $\mathrm{Mod}_{\mathrm{Obligation}} P$ obrigatoriamente Mod_{Obligation}⁰ $Asp_{Frustrative}P$ à toa $Asp_{Frustrative}^{0}$ $Asp_{SgCompletive}P$ completamente $\mathrm{Asp}_{\mathrm{SgCompletive}}{}^{0}$ VoiceP bem $Voice^0$

As will become clearer in the following section, BP lexical verb movement, however,

was not always low. Some authors claim that BP lost generalised movement over time (Tarallo 1993: 67,77, Torres Morais 1993: 228–9, Lopes-Rossi 1993: 263–4, Cyrino & Matos 2002: 193, Cyrino 2013: 229, Cyrino & Lopes 2016: 498–9). Regarding verb movement, what one expects to find, then, is a period where BP displayed high verb movement and another period with low verb movement, giving rise to this widely attested loss of movement.

Investigating the position of the verb with respect to the adverb sempre 'always', Araújo-Adriano (2022) shows that, indeed, BP lexical verbs moved to a higher position. Currently, the post-verbal position of this adverb (129) with the temporal/aspectual interpretation – in Asp_{Perfect} – generates an ungrammatical/marked sentence (Cyrino 2013: 306–9, Tescari Neto 2013: 161–2, Schifano 2018: 72, Araújo-Adriano 2022: 8), which is coherent with the standard configuration of the language: Inasmuch as lexical verbs move only to a low position (viz. Mod_{Obligation} in (121)), they cannot precede higher adverbs, e.g., sempre in Spec, Asp_{Perfect}.⁵⁴

```
(129) João (*/??almoça) sempre almoça às 14h.
J. always have.PRS lunch at 2 pm 'J. always has lunch at 2 pm.'
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As a result, Araújo-Adriano (2022: 25) shows that, before the 19th century, BP lexical verbs used to move to a higher position to precede *sempre*, but after that period (*viz.* 1891), they stopped preceding this adverb, hence no longer moving to a high position (cf. Figure 3.1, but also Figure 3.5 for a broader view). Interestingly, the only remnant movement attested was found with (semi-)functional verbs, *e.g.*, the complex verb *ter* 'have' (Freeze 1992, Kayne 1993, Avelar 2004, 2009) and *querer* 'want', and auxiliary verbs.

The position of the lexical verb in BP gives us a straightforward account for the reported readings triggered by the synthetic present Tense. Considering the structure in (119), Schifano (2018: 134–5) proposes that three major fields can be identified, "a high one, where Mood is encoded, a clause-medial one, where Tense is encoded, and a low one, where Aspect is encoded". Adopting this assumption, if BP lexical verbs move only as high as Mod_{Obligation}, as discussed, I am led to believe that contemporary BP lexical verbs only move to the Aspect-field, not higher viz. Tense-field, and Mood-field (130). If one combines this claim with the readings achieved by the synthetic present Tense, and that verbs move to licence their TAM interpretation (Fedele 2010, Ledgeway 2012, Cyrino 2013), it is reasonable to claim that the aspectual values triggered by synthetic present lexical verbs – viz. durative, prospective, retrospective, generic –, are licensed in

⁵⁴It is worth noting that the precedence of lexical verbs regarding *sempre* is only allowed when this adverb has a frequentative interpretation associated with *often*, lexicalising a lower position, *viz*. Asp_{Frequentative(II)} (cf. also Tescari Neto 2019: §Appendix 2 and Araújo-Adriano 2022: 13–4):

⁽i) Você vem sempre aqui? you come.PRS always here 'Do you come here frequently?'

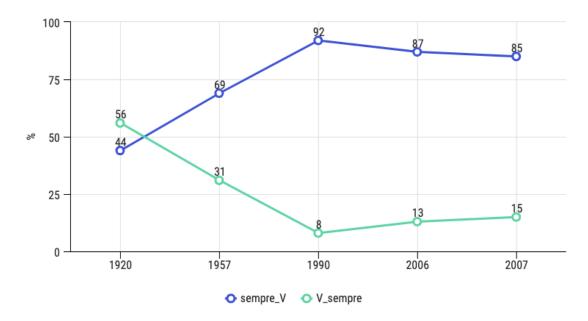
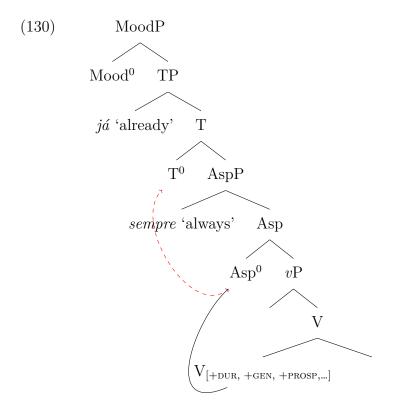


Figure 3.1: The position of the verb in relation to the adverb sempre 'always' in Asp_{Perfect} over time in BP (Adapted from Araújo-Adriano 2022: 25).

the Asp-field. Since these verbs do not have a Tense interpretation, for instance, they do not move further, what explains their post-position regarding certain adverbs.



3.3 The Temporal Property of BP Synthetic Present Tense in Diachrony

In the last section, we saw that, in contemporary BP, the synthetic present Tense triggers several interpretations: Of (i) durative, prospective, generic, habitual, retrospective Aspects and of (ii) conditional, imperative Moods. This amounts to saying that being exposed to the synthetic present morphology, a child has evidence of several interpretations other than the present Tense *per se*. When one observes the diachrony of BP, however, this picture is different: 18th- and 19th-century BP children had evidence of the synthetic present triggering a Tense interpretation.

As mentioned in Chapter 2, to constitute the diachronic data regarding the synthetic present Tense, I queried the TBC platform for verbs inflected in the present Tense. Then, I set variables that could shed some light on the behaviour of the synthetic tense over time, namely, the reading triggered by the synthetic morphology, the aspectual class of the lexical verb, and the adverb position with respect to the lexical verb. The complete variable set that I analysed follows:

- (131) a. Reading triggered
 - i. Mood
 - + Imperative
 - + Subjunctive
 - ii. Aspect
 - + Durative
 - + Prospective
 - + Generic
 - + Habitual
 - + Retrospective
 - iii. Tense
 - + Present
 - + Future Context
 - b. Aspectual Class
 - + Stative
 - + Activity
 - + Achievement
 - + Accomplishment
 - c. Adverb position
 - + Pre-verbal
 - + Post-verbal

Figure 3.2 below compares the Mood, Aspect and Tense readings that the synthetic present triggered over time. Overall, one can see that the present morphology has always

had multiple interpretations, being syncretic during the whole diachrony. The figure also shows that the Aspect flavour of the synthetic present was more used than its Temporal nuances. Hence, the synthetic present morphology being neutral regarding Mood, Aspect, and Tense categories has always been part of Brazilian children's input. Furthermore, the specific interpretations of each category existed consistently: There is no evidence of any reading losing their ground over the centuries. In the following, I present examples of the synthetic present Tense conveying present Tense are in (134) on the synthetic present verb licensing Mood and Aspect grammatical category.

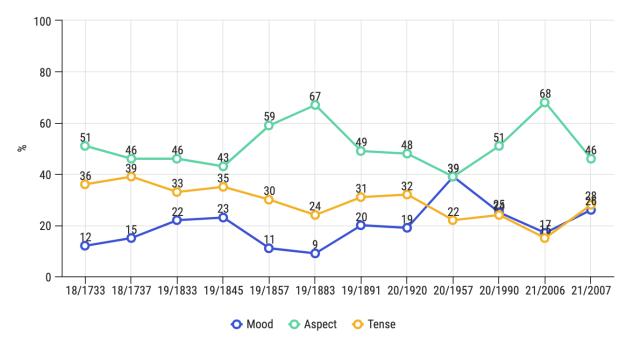


Figure 3.2: % of readings of Mood, Aspect, and Tense triggered by the synthetic present in BP over time.

The synthetic present form has always triggered an aspectual interpretation. In the diachronic *corpus*, I have also evidenced that the synthetic lexical verb conveyed every aspectual reading that synthetic lexical verbs convey in contemporary BP, *viz.* prospective (132-a), generic (132-b), habitual (132-d), retrospective (132-e), and durative (132-c), (132-f), (132-g), (132-h).

(132) Synthetic Present Tense and Aspectual readings

a. Senhor Dom Quixote, por vida da Senhora Dulcineia lhe **peço**, que Sir D. Q. by life of-the miss D. CL ask.PRS that me ajude a subir naquele zambujeiro, que quero ver me help.SBJV to climb.INF in-that oleaster that want.PRS see.INF

 $^{^{55}}$ Cf. Appendix A for the distribution of each category interpretation over time, as well as representative examples.

touros de palanque.

bulls of podium

'Don Q., for the life of Miss D., I ask you to help me climb that wild olive tree, I want to see bulls on the stage.'

(1733/18 - DQSP)

b. Vaso mau não **quebra**. vase bad not break.PRS

'A bad flower pot does not break.'

(1737/18 - GAM)

c. A chave **fica** em cima da mesa. the key stay.PRS in over of-the table 'The key stays over the table.'

(1833/19 - OJPR)

d. Às vezes nossas mãos se **encontram** sem querer. to-the times our hands CL meet.PRS without want.INF 'Sometimes, our hands touch without any intention.'

(1857/19 - ODF)

e. O Senhor Raul **acaba** agora mesmo de pedir-me a mão. the sir R. finish.PRS now right of ask.INF=CL the hand 'Sir R. has just proposed me.'

(1883/19 - CM)

f. **Anda** tão triste agora... walk.PRS so sad now 'He's been so sad...'

(1920/20 - OCS)

g. Os franceses gostam do Roberto Carlos porque ele entregou a the French like.PRS of-the R. C. because he delivery.PST the Copa para eles!

cup to them

'The French like R. C. because he gave them the Cup.'

(2006/21 - MMEUP)

h. **Gosto** de tudo limpinho, mas eu tenho horror de faxina! like.PRS of everything clean but I have.PRS horror of chore 'I like everything clean, but I hate chores.'

(2007/21 - FSB)

In the diachronic *corpus*, I also found the synthetic lexical verb being used in contexts of future.

- (133) Synthetic Present Tense in Future Context
 - a. Não te canses, que já o **achas** morto. no CL tire.IMP that already CL find.PRS dead 'Do not be tired, because you will already find him dead.'

(1737/18 - GAM)

b. Mulheres, vejam lá o que **fazem?**woman see.IMP there what do.PRS
'Woman, be carefull about what you are going to do.'

(1845/19 - ON)

c. **Janto** hoje com minha noiva. have.PRSdinner today with my fiancee 'Tonight, I'll have dinner with my fiancee.'

(1857/19 - ODF)

d. Mas desconfio que a Polícia qualquer dia mete o bedelho but suspect.PRS that the police any day poke.PRS the nose na cancha, e acaba com tudo aquilo!

in-the court and end.PRS with all this 'But I suspect that the Police will any day put their nose in the field, and will put an end to all that!'

(1891/19 - OT)

e. Nós **vamos** para um quarto na cidade, nós dois. we go.PRS to a room in-the city we two 'We will go to a room in the city, both of us.'

(1957/20 - ENUBT)

f. Se eu tomar um café, não **resisto**. if I take.INF a coffee no resist.PRS 'If I take a cup of coffee, I won't resist.'

(1990/20 - AP)

g. $Para ela eu \ dou$ um sabonete, um sachezinho, porque ela é to her I give.PRS a spoon a sache because she be.PRS velha.

'For her, I will give a spoon, a sache, because she is old.' (2007/21 – FSB)

As mentioned above, the data presented in Figure 3.2 regards all interpretations that the synthetic present verbs triggered. In observing the interaction between aspectual predicates with the synthetic present Tense triggering a present tense interpretation per se, where activity, accomplishment, and achievement predicates cannot arise in synthetic present verbs, I find an interesting pattern. Figure 3.3⁵⁶ compares the aspectual predicates within which there were synthetic present verbs. We can see that different aspectual predicates were available in the synthetic present Tense to convey simultaneity with the speech over time. From the end of the 19th century, however, activity and accomplishment verbs started to disappear: Synthetic verbs in accomplishment predicates disappeared first, followed by activity in the synthetic present form.⁵⁷ Only achievement predicates still occurred with the synthetic form to convey present Tense.

 $^{^{56}}$ Verbs in a stative predicate were not included in this analysis; albeit they obligatorily occur with the synthetic present in a stative predicate, they do not arguably trigger present Tense $per\ se$ but durative aspect, as I discussed.

⁵⁷Cf. Appendix A for examples of activity predicates after the 19th century.

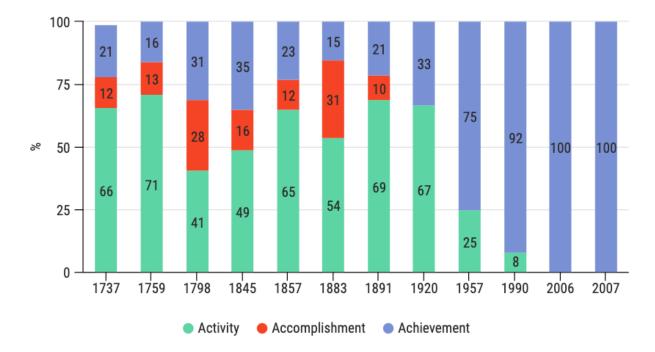


Figure 3.3: Aspectual predicates and the present Tense interpretation triggered by the synthetic present in BP over time.

Moving to the results of the synthetic present Tense, without differentiating aspectual classes, Figure 3.4^{58} presents the results of synthetic present triggering a temporal interpretation *per se*. In general, the usage of synthetic present triggering present Tense decreased over time, especially from the end of the 19th century. Examples in (134) illustrate that. From this period, however, some lexical verbs still triggered an S,R,E interpretation.

⁵⁸The counterpart of these data is that the analytic present tense construction triggers present Tense.

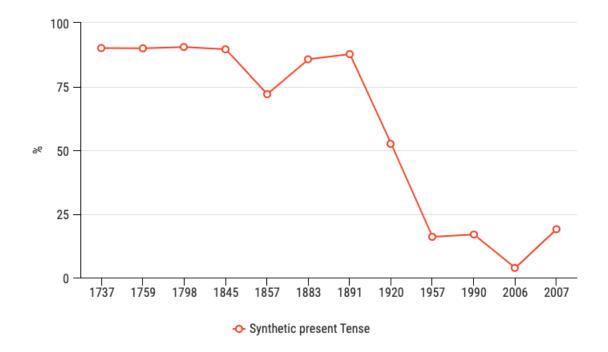


Figure 3.4: Synthetic present Tense interpretation triggering present Tense *per se* interpretation in BP over time.

- vista, lá (134)Mas se me não engana vejoavirumbut if me not deceive.PRS the sight there see.PRS come.INF a cavaleiro: ele é semdúvida; apressar-me knight he be.PRS without doubt hurry.INF=me want.PRS 'But if my eyes don't deceive me, there I see a knight coming: It's him, without a doubt; I want to hurry.' (cf. estou vendo 'be.PRS see.GER') (1733/17 - DQSP)
 - b. Aquele é Semicúpio; ele que carrega a caixa, não é that be.PRS S. he that carry.PRS the box not be.PRS sem causa. without cause 'That one that carries the box is S., and not without a cause.' (cf. está carregando 'be.PRS see.GER')
 - c. Ainda **fala**?... Suspendo-lhe as garantias. still talk.PRS suspend.PRS=CL the guarantees 'Are you still talking?... I'll suspend your guarantees.' (cf. está falando 'be.PRS speak.GER')

 (1833/19 – OJPR)
 - d. **Ouves** o que **diz** o sobrinho?

 listen.PRS what say.PRS the nephew

 'Are you listening to what the nephew is saying?'(cf. está ouvindo 'be.PRS listen.GER'/está dizendo 'be.PRS sayGER')

(1845/19 - ON)

e. *Não vejo ninguém.*

not see.PRS nobody

'I can see no one.'(cf. estou vendo 'be.PRS see.GER')

(1857/19 - ODF)

f. Porém, minha querida Beatriz, **espero** aqui os meus colegas, however my dear B. wait.PRS here the my colleagues temos que tratar de negócios do estado, que são Negócios have.PRS that deal.INF of business of-the state that be.PRS business muitos sérios...

very serious

'However, my dear B., I'm waiting for my friends here, we have to discuss some state business which are very serious.' (cf. estou esperando 'be.PRS wait.GER')

(1883/19 - CM)

g. Um velho, um naturalista que **examina** cuidadosamente umas a old a naturalist that examine.PRS carefully some pedras... Chamemo-lo! Psiu! rocks call.IMP=CL psiu

'An old naturalist that is carefully examining some rocks... Let's call him! Psiu!' (cf. está examinando 'be.PRS examin.GER')

(1891/19 - OT)

h. Podemos ir, seu Ernani./**Leva** aí tudo? Não esqueceu can.PRS go.INF your E/take.PRS there everything not forget.PST nada?
anything

'We can go, Mr. E./Are you taking everything there? Haven't you forgotten anything?'⁵⁹ (cf. está levando 'be.PRS carry.GER')

(1920/20 - OCS)

i. **Aposto** que a idéia foi dele! bet.PRS that the idea be.PST his

'I bet it was his idea' (cf. *estou apostando 'be.PRS beg.GER')

(1957/20 - ENUBT)

j. **Agradeço** a todas vocês.

appreciate.PRS the all you

'I thank you all.' (cf. *estou agradecendo 'be.PRS thank.GER')

(1990/20 - AP)

k. Está bom, confesso.

be.PRS good confess

'Ok, I confess.'(cf. *estou confessando 'be.PRS confess.GER')

(2006/21 - MMEUP)

 $^{^{59}}$ In this passage, the character was entering the scene with a coat and a hat, carrying a big package, when the other character said (134-h).

Prometo que não vou morder ninguém!
 promise.PRS that not go.PRS bite.INF nobody
 'I promise I won't bite anyone.' (cf. estou prometendo 'be.PRS promiss.GER')
 (2007/21 - FSB)

We can see in Figure 3.4 that some lexical verbs still trigger a temporal interpretation. These are performative verbs: Out of all lexical verbs in the data of the 20th and 21st centuries, performatives with a temporal interpretation were a minority: From 378 verb lexemes in the 20th and 21st centuries, only 18 were prototypical performative verbs, that is, a small 4.8% exception rate. They are listed below.

(135) abominar 'abhor', aceitar 'accept', admitir 'admit', agradecer 'thank', apostar 'bet', arrepender 'regret', assegurar 'assure', assinar 'sign', concordar 'agree', confessar 'confess', consentir 'consent', desculpar 'excuse', duvidar 'doubt', garantir 'guarantee', jurar 'swear', participar 'partake', pedir 'ask', prometer 'promise'.

Contrasting Figures 3.4 and 3.3, we can see that, after the 19th century, the only verbs triggering a present Tense interpretation in achievement predicates were performative verbs. If performative verbs are verbs that do not describe or report something but are part of doing an action, a performance (Austin 1962: 5), instantaneously performed when uttered, as in "I pronounce you husband and wife", then performative verbs seem to be closely related to the idea of achievement, being predicates that are punctual, instantaneous, "lacking continuous tenses (...) predicated only for single moments of time" (Vendler 1967: 102), as in "Jonh fell".

3.3 Syntactic Properties of BP Synthetic Present in Diachrony

As I mentioned previously, some authors claim that several syntactic changes in BP are due to the loss of verb movement, giving rise in contemporary BP to the default pattern of limited verb movement, for instance. Regarding it, I now present the diachronic data concerning the position of the lexical present verb with respect to adverbs that could shed some light on the movement of lexical verbs. In general, I found a few cases where adverbs modified the synthetic verb. Some were useful adverbs to diagnose verb movement, and some were not. I will start with the data regarding the precedence of the synthetic verb.

Synthetic Present and 'não' not in diachrony

I begin with the data regarding the position of synthetic present and $n\tilde{a}o$ 'not'. In the diachrony, in every negative sentence with a lexical verb in the synthetic present, I found $n\tilde{a}o$ 'not' preceding the lexical V (136). This pattern conforms with present-day BP, where sentence negation must appear in a preverbal lexical position.

(136) a. Se não fora o velho ali, Te fizera um <u>não</u> **sei** que. if not be.PLPF the old there CL.2SG do.PLPF a not know.PRS that 'If it hadn't been for the old man over there, they would have done I don't know what with you.'

(1737/18 - GAM)

b. E Alfredo <u>não</u> te **ama?** and A. not CL.2SG love.PRS 'And A. doesn't love you?'

(1857/19 - ODF)

c. Preciso ir lá dentro, mas <u>não</u> **demoro**.

need.PRS go.INF there inside but not take.long.PRS
'I need to go inside, but I won't take long'

(1920/20 - OCS)

d. Você <u>não</u> me **engana** que eu sei o filho que eu tenho. you not CL.1SG trick.PRS that I know.PRS the son that I have.PRS 'You can't fool me, because I know the son that I have'

(2006/21 - MMEUP)

Synthetic Present and 'já' already in diachrony

In the *corpus*, I also found the adverb $j\acute{a}$ already' in Spec, $T_{\rm Anterior}$. In most of the sentences with this adverb, the verb followed it. The lexical verb passed by this adverb in $T_{\rm Anterior}$ only once in our data, in 1883.⁶⁰ Below, we see examples of both orders, $V_{j\acute{a}}$ in (137) and $j\acute{a}_{\rm V}$ in (138).

(137) Então **sabe** <u>já</u> alguma cousa acerca do ministério? so know already some thing about the ministry 'So, do you already know anything regarding the ministry?'

(i) a. que eu venho já. that I come.PRS already 'That I'll soon come.'

(1737/18 - GAM)

b. Eu me retiro $\underline{j}\underline{\acute{a}}$ I me back.down.PRS \overline{a} lready 'I'll leave immediately'.

(1857/19 - ODF)

c. **Volto** <u>já</u> ... back.PRS already 'I'll be right back.'

(1920/20 - OCS)

d. Vou <u>já</u>. go.PRS already 'I'm going immediately.'

(20/1920 - OCS)

⁶⁰There were cases where the lexical verb preceded $j\acute{a}$ 'already', but with a different meaning:

(19/1883 - CM)

(138) a. <u>Já</u> o Alecrim **pede** favores à Mangerona? already the A. ask.PRS favours to-the M. 'Is A. already asking favours to M.?'

(1737/18 - GAM)

b. <u>Já</u> **chove!** already rain.PRS 'It is already raining.'

(1891/20 - OT)

c. Eu já consigo até rir disso. I already can.PRS even laugh.INF of-this 'I can already laugh at this.'

(20/1990 - AP)

Synthetic Present and 'ainda' still in diachrony

The adverb *ainda* 'still' in Spec,Asp_{Continuative} also modified the verb in the diachronic sample: The only position of the synthetic present verb in relation to this adverb was in a preverbal position (139). This does not mean, however, that the synthetic verb did not move higher in the past.

(139) a. Oh não sei como <u>ainda</u> cabe No meu peito tanta dor? oh no know.PRS how still fit.PRS in-the my chest many pain 'Oh, I do not know how so much pain still fits in my chest.'

(18/1737 - GAM)

b. <u>Ainda</u> **nega** o magano? still deny.PRS the magano 'Are you still denying the magano?'

(18/1737 - GAM)

c. <u>Ainda</u> fala? still talk.PRS 'Are you still talking?'

(19/1883 - CM)

d. Ela é uma típica burguesa, não tão bem cuidada quanto she be.PRS one typic bourgeois not so well taken.care.PRS.of as gostaria, mas que <u>ainda</u> guarda os traços de beleza de outrora. like.COND but that still keep.PRS the trace of beauty of yore 'She is a typical bourgeois, not as well cared for as she would like, but who still retains the traces of beauty yesteryear.'

(20/1990 - AP)

The preverbal position of *ainda* 'still' seems to be a case of dislocation to the left periphery, in the spirit of Andriani's (2016: 240) proposal for the dialect of Italian *ancora* 'still'. So much so that it can precede a quantifier subject (in the left periphery, *viz.* FocP),

such as *ninguém* 'nobody'⁶¹:

(140) a. a juminha tá crescendo rápido alguém precisa parar o the J. be.PRS grow.GER fast someone need.PRS stop.INF the tempo tanta tecnologia rolando e essa <u>ainda</u> ninguém inventou time so.much technology go.GER and this nobody invent.PST 'J. is growing up fast. Someone needs to stop time, so much technology going on, and this still nobody invented.'

(2023/21 - Twitter)

b. <u>Ainda</u> **ninguém** me deu uma reposta. still nobody me give.PST an answer 'Still nobody gave me an answer'.⁶²

Considering that in all of the cases in which any syntactic present occurred with *ainda* 'still' it could be left dislocated, this does not represent evidence for the absence of verb movement.

Synthetic Present and temporal/aspectual 'sempre' always in diachrony

I also detected sentences with the temporal/aspectual *sempre* 'always' in Spec,Asp_{Perfect}. We see that before the 19th century, synthetic lexical verbs used to precede *sempre* 'always', whilst after this period, the movement was limited, a diachronic pattern that was shown in Araújo-Adriano (2022). Proper examples are illustrated in (141).

- a. por isso vós, minha filha, andais sempre contando os by this you my daughter walk.IND.PRS.2.PL always count.GER the buracos às rótulas, porque todo o fogo tendes no holes to-the kneecaps because all the fire have.IND.PRS.2.PL in-the peito.

 chest
 - 'so you, my daughter, always keep counting the holes in your kneecaps, because you have all the fire in your chest.' (1759)
 - b. As ternuras desta terra/Sabem sempre a pão e the tenderness of-this land know.IND.PRS.3.PL always to bread and queijo,/Não são como no Brasil/Que até cheese not be.IND.PRS.3.PL like in Brazil that even é doce o desejo.

 be.IND.PRS.3.SG sweet the desire 'The tenderness of this land / They always taste like bread and cheese, / They are not like in Brazil / That even desire is sweet.' (1798)

⁶¹I thank Adam Ledgeway for pointing out this argument to me.

 $^{^{62} {\}tt https://www.reclameaqui.com.br/natura/ainda-ninguem-me-deu-uma-reposta_SFXVoYATBkrGm9KP/}$

- c. Fez ver a seus pés prostrado/ O que as idades make.IND.PST.3.SG see.INF at his feet prostrated what the ages consome,/ De voz em voz o seu nome/ consume.IND.PRS.3.SG from voice in voice the your name faz sempre e sempre soar.

 make.IND.PRS.3.SG always and always sound.INF
 'It made him see at his feet prostrated / What the ages consume, / Voice over voice your name / Always make and always sound.' (1798)
- d. Quando nos habituamos a venerar um objeto por muito when CL get-used.IND.PRS.1.PL to worship.INF an object for much tempo, podemos odiá-lo um dia, porém o time can.IND.PRS.1.PL hate.INF=CL a day however it respeitamos sempre! respect.IND.PRS.1.PL always
 - 'When we get used to worshiping an object for a long time, we may hate it one day, but we always respect it!' (1857)
- e. O senhor nunca nos incomoda, dá-nos
 the sir never CL bother.IND.PRS.3.SG give.IND.PRS=CL.3.SG
 sempre muito prazer.
 always very pleasure
 'You never bother us, you always give us great pleasure.' (1883)

As presented before, Araújo-Adriano (2022: 25) evidences the loss of lexical verb movement with respect to the adverb *sempre* 'always' in the period between the 18th to the 21st century. Figure 3.1, extended here in Figure 3.5, shows that whilst lexical verbs were consistently found to the right of *sempre* 'always' until 1891, this ordering has drastically decreased in usage from the end of the 19th century, mimicking a pattern akin to contemporary BP, with the lexical verb always postponed to *sempre* 'always', in a low position.

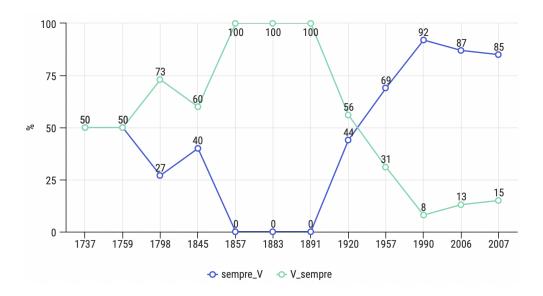


Figure 3.5: BP verb placement with respect to the adverb *sempre* 'always' over time (Araújo-Adriano 2022: 25).

As for the position of synthetic present verbs and adverbs, Araújo-Adriano's (2022: 25) results show that the movement to a higher/lower position than temporal/aspectual sempre was always an option; the difference lies on the type of verb that stopped/continued moving higher. From 1920, only present Tense lexical verbs were attested to the right of sempre, in a configuration sempre_V. Interestingly, there were more lexical verbs to the left of sempre from this period, emulating BP's contemporary low movement. As mentioned before, not all verbs stopped being located to the right of sempre: The diachronic data attested only functional verbs preceding this adverb, such as copula verbs, possessive ter 'have' and some "semi-functional" verbs, such as querer 'want', respectively, in (142).

- (142) a. Você **tem** sempre uma desculpa pronta.
 you have.IND.PRS.3.SG always a excuse ready
 'You always have an excuse ready.' (1920)
 - b. Então há=de ser por isso que todos os maridos so have.IND.PRS.3.SG=OF be.INF for this that all the husbands tem sempre cuidado com os primos da mulher... have.IND.PRS.3.SG always care with the cousins of wife 'So that must be the reason why all husbands are always careful with their wife's cousins...' (1920)
 - c. Quer sempre $t\hat{e}$ $raz\tilde{a}o$. want.IND.PRS.3.SG always have.INF reason 'You always want to be right.' (1957)
 - d. \acute{E} estatística, em qualquer lugar do mundo be.IND.PRS.3.SG statistics in any where of-the world \red{tem} sempre alguém do Brasil por perto. have.IND.PRS.3.SG always someone from Brazil by near

'It's statistics, anywhere in the world there is always someone from Brazil around.' (2006)

If one treats ter 'have' as a result of the combination of a copular verb and an abstract preposition either in a possessive, existential, or auxiliary reading (Freeze 1992, Kayne 1993, Avelar 2004, 2009), it is reasonable to claim, as Araújo-Adriano (2022) does, that solely functional verbs, i.e., ter 'have', copular, and auxiliary verbs (along with querer 'want' as a semi-functional verb), preceded temporal/aspectual sempre. Hence, this gives rise to two scenarios: On the one hand, those functional verbs did not follow the "natural" path of change and still move to a high position, and on the other, lexical verbs lost movement from the 19th century, mimicking the generalised loss of movement BP faced. In other words, I claim that not all [+V] elements stopped moving higher than sempre in Spec,Asp_{Perfect}, but only lexical verbs.

Synthetic Present and 'quase' almost in diachrony

Moving on, I also evidenced the adverb quase 'almost' in Spec, Asp_{Prospective}. Although in the data they only preceded synthetic lexical verbs (143), this should not be taken as evidence for limited verb movement. Tescari Neto (2013: 136) and Tescari Neto & Forero Pataquiva (2020: 506) argue that BP quase 'almost' can be dislocated to the left periphery. The authors are based on Garzonio & Poletto (2014) in the case of the Italian quasi. Hence, this adverb, albeit preceding, should not be taken as evidence of limited movement. Note that I attested the absence of verb movement given the precedence of the lexical verb with respect to almost 'quase' in (127), because one knows that the verb following it generates an ungrammatical sentence. Hence, since there are not living speakers to (not) attest to such order, the precedence of quase 'almost' does not tell us anything.

(143)Todas as manhãs, faça bom ou mau tempo, passa por aqui ao every the morning do.SBJV good or bad weather come.PRS by here to-the meio dia; quase nem olhapara esta janela, donde half day almost barely look.PRS to this window from where I CL.3SG as cortinas escondida entre espero wait.PRS hidden between the courtains 'Every morning, whether the weather is good or bad, he stops by at midday; he hardly ever looks at this window, where I wait for him hidden between the curtains'

(1857/19 - ODF)

Synthetic Present and 'bem' well in diachrony

Another position of the synthetic present Tense in the diachronic *corpus* regards *bem* in Spec, Voice. I identified a pattern when this adverb followed and preceded the synthetic lexical verb. In almost all cases, the precedence regarded evidential verbs, such as *saber* 'know', where there was a focus reading of 'Yes, you certainly know it!' (144). In all of the

cases, the adverbs certamente 'certainly', evidentemente 'evidently' would be the perfect paraphrases for that. This focus reading can be clearly seen in (144-h) where there was a repetition, reinforcing this focus. In this regard, Tescari Neto & Forero Pataquiva (2020: 495, footnote 4) specifically discussed these cases of precedence of well, claiming that a focus interpretation is triggered, given that bem moves to Spec,Foc: In their words "The pre-verbal position of bem in these examples should involve – after the rise of the V over bem – a movement of this adverb to [Spec,Foc], at the left periphery and raise of the subject to the [Spec,Top] position".⁶³

Ora sô mestre, você bem **sabe**, (144)que é obrigação dos de seua. you well know.PRS that be.PRS obligation of-the of your well sir Mr ofício, enquanto fazem a barba, dizerem as novidades, que while job do.PRS the beard say.FUT.SBJV the news that $h\acute{a}$ cidade.pelahave.PRS by-the city 'Well master, you know full well that it is the obligation of those in your trade to, while shaving, tell the news there are in the city.

(1733/18 - DQSP)

- b. Não faças caso de mulheres, que <u>bem</u> parece, que ignoram o no do.IMP case of women that well seem.PRS that ignore.PRS the gênio dos cavaleiros andantes.

 spirit of knights walker

 'Do not mind women, who, it seems, ignore the spirit of walking knights.'

 (1733/18 DQSP)
- c. Vós <u>bem</u> **sabeis** que é preciso mandar you well know.PRS that be.PRS need.PRS send.INF 'You know well that one must send it.'

(1833/19 - OJPR)

d. <u>Bem</u> **sabe** que não temos cadeia. well know.PRS that no have.PRS jail 'You know very well that we have no jail.'

(1833/19 - OJPR)

e. <u>Bem</u> compreendo! well understand.PRS 'I completely understand.'

(1920/20 - OCS)

f. <u>Bem</u> sabem que aos domingos é o melhor dia de se well know.PRS that to-the Sundays be.PRS the best day of CL falar ao Doutor Amarante.

talk.INF to-the D. A.

"You certainly know that on Sundays it's the best days to talk to D.A."

⁶³From the original: "O posicionamento pré-verbal de bem nesses exemplos deve envolver – subsequentemente à subida do V por sobre bem –, movimento desse advérbio a [Spec,Foc], na periferia esquerda e subida do sujeito à posição de [Spec,Top]."

(1920/20 - OCS)

g. \underline{Bem} se $\mathbf{v\hat{e}}$ que hoje \acute{e} domingo. well CL see.PRS that today be.PRS Sunday 'We can clearly see that today is Sunday.'

(1920/20 - OCS)

h. Você <u>bem</u> **sabe** sim, sim. you well know.PRS yes yes 'You certainly do know it, you do!'

(1920/20 - OCS)

Synthetic Present and frequentative 'sempre' always in diachrony

Finally, the last adverb found refers to an innovative use of *sempre* 'always', triggering a pattern of behaviour in Spec,Asp_{Frequentative(II)}. As reported in Araújo-Adriano (2022: 33), from 1845, the adverb *sempre* started triggering an additional reading apart from the temporal/aspectual one, licensed in Spec,Asp_{Perfect}. From that moment on I find the frequentative reading of this adverb being licensed in a lower position, from where synthetic lexical verbs precede. In all cases where this low adverb was in the sentence, the diachronic results suggest that the present lexical verb preceded it.⁶⁴

(145) a. Ele vem sempre aqui...
he come.IND.PRS.3.SG often here
'He often comes here...' (1891)

b. Ele diz sempre que mãe é culpada disso, he say.IND.PRS.3.SG always that mom be.IND.PRS.3.SG guilty of-this, que é culpada daquilo. Ridículo! that be.IND.PRS.3.SG guilty of-that ridiculous 'He always says that moms are guilty of this, and guilty of that. That's ridiculous!' (2006)

Synthetic Present and adverbial expressions in diachrony

As mentioned before, I found some cases where the adverbs were not the prototypical ones I tested under the Hierarchy in (121). Such adverbial expressions are *hoje em dia*

(i) Quem é que tem coragem aqui no prédio de falar o que who be.IND.PRS.3.SG that have.IND.PRS.3.SG courage here in=the building of talk.INF what tem que falar? Eu, claro! É como sempre digo: have.IND.PRS.3.SG that talk.INF I sure be.IND.PRS.3.SG how regularly say.IND.PRS.1.SG eu mato um mas não morro.

I kill.ind.prs.1.sg one but not die.ind.prs.1.sg

⁶⁴There was only one exception about this, as pointed out in Araújo-Adriano (2022):

^{&#}x27;Who has the courage here in this building to say what has to be said? Me, of course! It's like I regularly say: I'll kill, but I won't die.' (2006)

'nowadays', todos os dias 'everyday', nunca 'never', todo ano 'every year', and uma vez por ano 'once a year':

a. O bom tempo lá vai da fartura, Pois não **ganho** dez réis the good weather there go.PRS of abundance because not earn.PRS ten réis hoje em dia!

nowadays

'The good age of abundance is gone, because I don't earn 10 réis a day.'

(1891/19 - OT)

b. Nós **jantamos** <u>todos os dia</u> num hotelzinho da Rua da Lampadosa. we dine.PRS everyday in-a little.hotel of.the Rua da Lampadosa 'We have dinner everyday in a tiny hotel at L. St.'

(1891/19 - OT)

c. <u>Hoje em dia</u> as pessoas **fazem** sexo como trocam de roupa.

nowadays the people make.PRS sex as change.PRS of clothes 'These days, people have sex as they change clothes.'

(2006/21 - MMEUP)

d. Quer dizer, a perturbação desses anúncios não **termina** <u>nunca</u>. want.PRS say.INF the disturbance from-these ads not end.PRS never 'I mean, the disturbance from these ads never ends.'

(2006/21 - MMEUP)

e. <u>Todo ano</u> eles se **inscrevem** nessa merda. everyyear they CL enroll.PRS in-this shit 'Every year they subscribe to this shit.'

(2006/21 - MMEUP)

f. Eu <u>nunca</u> **fico** sem!

I never stay.PRS without 'I am never without it.'

(2007/21 - FSB)

g. Já o Rodrigo Augusto mora nos Estados Unidos com o pai, yet the R. A. live.PRS in-the States United with the father uma vez por ano ele **vem** me visitar. onceayear he come.PRS CL visit.INF 'As for R. A., he lives in the United States with his father, once a year he comes to visit me.'

(2007/21 - FSB)

The data presented so far suggest that the lexical verb in BP has always moved outside vP, given its constant precedence with regards to bem 'well', $sempre_2^{65}$ 'always' = 'frequently'. The diachronic results from the 18th and 21st centuries also indicate that the BP lexical verb has not moved higher than $n\tilde{a}o$ 'not', nor $j\acute{a}$ 'already'. This position regarding the adverb $j\acute{a}$ 'already' is in line with Corôa's (2022). Investigating 17th and

 $^{^{65}}$ To distinguish sempre = frequently in Asp_{Frequentative(II)} from sempre = always in Asp_{Perfect}, I used 1 for the higher adverb and 2 for the lower.

18th centuries BP, the author found that BP only displayed verbs moving higher than $j\acute{a}$ and even higher in the V2 effect in the 17th century, a mirror of the Classic Portuguese, but no longer in the 18th century (Corôa 2022: 320-8).

It was in the plays of the end of the 19th century that the BP contemporary syntax is manifested: By the end of the 19th century, albeit leaving vP, lexical verbs stopped moving to a higher position, as before, suggested by its position regarding the higher adverb *sempre* 'always'. Hence, I presume that the position widely attested that BP lexical verbs move as high as Mood_{Obligation} (Tescari Neto 2019: 3570) became the default from the end of the 19th century.

Since our results attested to the position of the synthetic lexical verb with respect to restricted types of adverb and did not attest to the position of the verb being higher than $j\acute{a}$ and not, I interpret the diachronic results as the lexical verb in BP losing verb movement to a position between $j\acute{a}$ and $sempre_1$, that is, $T_{Anterior}$ and $Asp_{Perfect}$, no longer yielding the order $sempre_1$ _V.

Adopting Schifano's (2018: 134–5) proposal that verbs in Romance move to fields, not specific positions, I conjecture that to precede sempre₁, bem, and sempre₂, but follow já, BP synthetic lexical verbs moved to the T-field until the end of the 19th century; after that period, to follow já, sempre₁ (and obrigatoriamente, cf. Tescari Neto 2019: 3570), but precede bem, and sempre₂, lexical verbs stopped moving to the T-field and started moving to only Asp-field. If this is on the right track, one can now have a straightforward picture of the loss of (generalised) verb movement in BP (Tarallo 1993: 67,77, Torres Morais 1993: 228–9, Lopes-Rossi 1993: 263–4, Cyrino & Matos 2002: 193, Cyrino 2013: 229, Cyrino & Lopes 2016: 498–9). These two scenarios are sketched below:

- (146) a. Before the 19th century $[\text{n\~{a}o [j\'{a} V [sempre_1[bem[sempre_2]] }] }]$
 - b. After the 19th century [não [já [$sempre_1$ $V[bem[sempre_2]$

3.4 Summary of the Chapter

In this Chapter, I investigated BP synthetic present verbs from the 18th to the 21st centuries. Over time, I observed that the synthetic present verbs triggered different interpretations such as the habitual, generic, prospective, and retrospective Aspects, the irrealis, and the imperative Moods, and the present Tense. From the end of the 19th century, however, the present Tense interpretation was lost: Synthetic present verbs no longer trigger a temporal interpretation of present per se of present. This loss amounts to saying that by the end of the 19th century, BP children stopped having in their PLD the trigger to acquire (a feature of) present Tense in synthetic verbs. In terms of syntactic behaviour, I also identified two grammatical systems. In the first, lexical verbs moved to a high position, arguably T, preceding high adverbs, viz. temporal/aspectual sempre 'always'. In the second pattern, lexical verbs stopped moving to such a position, preceding not only sempre 'always' but also obrigatoriamente 'obligatorily', a pre-verbal order. Tying

the loss of temporal interpretation and verb movement together, I found the following two scenarios over time:

(147) a. BP prior to the 19th century

Lexical Verbs \rightarrow movement to T-field: YES

 \rightarrow temporal interpretation: YES

b. BP after the 19th century

Lexical Verbs \rightarrow movement to T-field: NO

 \rightarrow temporal interpretation: NO

We also saw that the low movement of the lexical verb in contemporary BP is a novel pattern manifested in plays by the end of the 19th century. In this vein, a reasonable question is whether the same loss of verb movement, characteristic of lexical verbs, is found when it comes to auxiliaries. The literature on this already pointed out that lexical and auxiliary verbs have discrete patterns (cf. Pollock 1989, Belletti 1990, Cinque 1999, Ledgeway & Lombardi 2005, Ledgeway 2012). Hence, one expects – and indeed that is what I show in the following Chapter – that such a different behaviour found for lexical versus auxiliary verbs also applies BP auxiliary verbs: Whilst lexical verbs lost not only temporal interpretation but also verb movement, auxiliaries still kept it.

4 The Analytic (Present) Tense in BP over Time

Introduction

As I mentioned in Chapter 3, Reintges & Cyrino (2018: 181) explicitly state that BP is advanced in this analyticisation process: "the analyticization process is at a more advanced stage in Brazilian Portuguese, where synthetically inflected tenses exhibit a decrease in productivity and are gradually being replaced by corresponding verb constructions with auxiliaries in the spoken language". Thus, although in theory there is a synthetic paradigm in Portuguese (cf. (148)), placing this language alongside Italian, Spanish, and even European Portuguese, the reality is that in the spoken language, there is competition with the equivalent periphrastic forms (Longo 1998, Longo & Campos 2002, Cyrino 2013, Reintges & Cyrino 2016, 2018, Araújo-Adriano 2019b, Carvalho & Bassani 2021), as shown in Table 3.1, repeated in Table 4.1. In this sense, Cyrino (2013: 300) question whether in fact BP would still be considered a Tense-rich language.

(148) como (present indicative), comerei (future), comi (preterite), comia (imperfect), comera (plus-perfect), comeria (conditional), comesse (past subjunctive), coma (present subjunctive)

Tense	Synthetic Tense	Analytic Tense
Present	eu falo	eu estou falando
Imperfect	eu falava	eu estava falando
Simple past	eu falei	-
Future	eu falarei	eu vou falar
Plus-perfect	eu falara	eu tinha falado
Future perfect	-	eu terei falado
Past perfect	-	*eu tive falado

Table 4.1: The BP temporal paradigm (Adapted from Reintges & Cyrino 2018: 191).

Although it is known that contemporary BP tends to behave analytically in relation to its verbal paradigm, it is not known when this trend started to be established in the language. In this Chapter, I fill this gap in diachronic studies, investigating the preference for analytic verb forms over synthetic ones over time. This chapter is divided as follows:

Section 4.1 presents the verbal paradigm of contemporary Brazilian Portuguese, which demonstrates an analytic tendency; thereafter, in Section 4.2, I present some properties of the analytic construction that is the focus of this dissertation: *Estar* 'be' + gerund. Later, in Section 4.3, I dig into the history of BP, demonstrating that it went through a process of preference of analytical verb forms over time.

4.1 The analytic contemporary BP Verbal Paradigm

Present Indicative Tense Paradigm

Of the three verb modes in Brazilian Portuguese, the imperative, subjunctive, and indicative, essentially all indicative tenses have been replaced by their respective analytic forms. As already presented in Chapter 3, differently from before the end of the 19th century (cf. (149-a) and Section 3.3), in contemporary Portuguese, sentences with the synthetic present Tense (*ignora* 'ignore.PRS') are ungrammatical with a temporal reading⁶⁶. Contrarily, contemporaneous BP speakers, as a rule, use the analytic forms headed by the verb estar.PRS + gerund (está ignorando 'be.PRS ignore.GER') (149-b) instead.

- (149) Variation of present Tense reading: Synthetic versus analytic present
 - a. Que **dizes**? Enlouqueceste, ou **ignoras** com quem **falas**! (1737°^k) what say.PRS freak.out.PST or ignore.PRS with who talk.PRS 'What are you saying? Are you crazy, or are you ignoring who you are speaking with?'
 - b. O que (es)tá dizendo? Enlouqueceu, ou tá ignorando com the what be.PRS say.GER freak.out.PST or be.PRS ignore.GER with quem você tá falando!
 who you be.PRS talk.GER
 'What are you saying? Are you crazy, or are you ignoring who you are speaking with?'

Whilst simultaneity of speech – a present Tense interpretation *per se* – is restricted to the *estar*.PRS + gerund form, some of the aspectual readings that synthetic present triggers (cf. Section 3.1) can be conveyed by both analytical structures, either *estar*.PRS + gerund (*estou nadando* 'be.PRS swim.GER') or *ter*.PRS + participle ⁶⁷(*tenho nadado* 'have.PRS swim.PTCP'), as (150) shows (cf. also Mendes 2005, Wachowicz 2006).

⁶⁶In European Portuguese, the Temporal interpretation conveyed by the synthetic present is rare, as suggested by Lopes & Oliveira (1995: 105) and Baldé (2013: 79-81), where "the linguistic translation of the relation of simultaneity between event-time and utterance-time is more frequently expressed by the so-called periphrastic present" (Lopes & Oliveira 1995: 105), headed by estar 'be' followed by the preposition a and an infinitive verb (está a chover 'be.PRS P rain.INF').

⁶⁷This analytic form cannot trigger a present Tense interpretation. Relatively to (149-a), and (149-b), ter.PRS 'have' + participle is ungrammatical:

⁽i) *O que tem dito? Enlouqueceu, ou tem ignorado com quem tem what have.PRS say.PTCP freak.out.PST or have.PRS ignore.PTCP with who have.PRS falado! talk.PTCP

^{&#}x27;What are you saying? Are you crazy, or are you just ignoring who you are talking to?'

- (150) Variation of Aspectual reading: Synthetic versus analytic present
 - a. Eu **faço** curso de inglês nas quartas.
 - I take.PRS course of English on-the Wednesdays
 - 'I take English classes on Wednesdays.'
 - b. Eu **estou fazendo** curso de inglês nas quartas.
 - I be.PRS take.GER course of English on-the Wednesdays
 - 'I take English course on Wednesdays'
 - 'I have been taking English classes on Wednesdays.'
 - c. Eu **tenho** feito curso de inglês nas quartas.
 - I have.PRS do.PTCP course of English on-the Wednesdays
 - 'I have been taking English classes on Wednesdays.'

In short, the contemporary BP present Tense paradigm comprises the analytic constructions ter.PRS + participle, and estar.PRS + gerund. The former triggers a habitual/iterative reading, co-occurring with the synthetic form, whilst the latter conveys not only (present) Tense (149-b) but also (habitual) Aspect (150-b). Therefore, one sees that the structure estar.PRS + gerund in the PLD is not enough to trigger neither Tense nor Aspect interpretation for the child since it is ambiguous and syncretic. Thus, the paradigm for the present indicative is the following:

(151) Verbal paradigm of contemporary BP: PRESENT INDICATIVE TENSE

Tense Synthetic Form Analytic Form

Present Eu acordo Eu estou acordando (tense/aspect)

Eu tenho acordado (aspect)

Past Indicative Tense Paradigm

Split into three preterits, the past Tense of the Portuguese indicative has the perfect – simple past –, imperfect and plus-perfect readings. As for the simple past tense, there has been a co-occurrence in the history of the language with an equivalent periphrastic form, ter.PRS + participle ($tem\ feito$ 'have.PRS do.PTCP'). For example, Barbosa (2008: 221) finds this analytic structure with three nuances over time, with (i) perfective – equivalent to the past perfect tense –, (ii) durative, and (iii) iterative readings. Focusing on the perfect reading, the author found the analytical perfect Tense in the 16th, 17th, and 18th centuries and even in the 20th century (cf. (152-a)–(152-b)).

(152)Como tem **faLesido** o Cappitam mor da $dita \ ALdea$ a. have.PRS die.PTCP the Captain major of-the tell village as nesesario que vossa excelenca sendoser vido mande have.PRS necessary that you excellence? send.IMP prover outroe0 mais Capaz que ha $h\acute{e}$ $h\hat{u}$ por provide.INF another and the more capable that have.PRS be.PRS the by nome Sebastiaõ.da.siLva.

name S.d.S

Since the major Captain of the aforementioned village died, it is necessary

that your grace, ? ? sees that another is provided, and the most capable one that exists is called Sebastião da Silva.' (18th Century, Barbosa 2008: 224)

- b. Como **faleceu** o Cappitam mor (...) as die.PST the captain major (...) 'Since the major Captain has died (...)'
- (153)Meu caro Barão já lhe tenho escritodiversas cartas mas my dear baron already CL have.PRS write.PTCP diverse letters but ainda não tive prazerde reconhecer nasque recebo not have.PST the pleasure of recognise.INF in-the that receive.PRS daEuropa asua caligrafia. from Europe the your calligraphy. 'My dear Baron, I wrote you several letters but I still haven't had the pleasure of recognizing in the ones I have received from Europe your handwriting. (19th Century, Barbosa 2008: 231)
 - b. Meu caro Barão, já lhe **escrevi** diversas cartas (...) my dear baron already CL write.PST diverse letters 'My dear Barão, I already sent you many letters (...)'

Regarding (152-a), the author claims this is a use of the perfective reading – unambiguously –, given the adverb $j\acute{a}$ 'already' or the presence of telic verbs such as falecer 'die', which inhibit the durative and iterative reading, clearly conveying its respective synthetic form (Barbosa 2008: 222–4). This analytic form to convey past simple, however, ceased to be productive over time, as Table 4.2 shows. In this way, the equivalence of the analytic for ter.PRS + participle ($tem\ falecido$ 'have.PRS die.PTCP') standing in for the synthetic past Tense ($e.g.\ faleceu$ 'die.PST') is judged to be ungrammatical in contemporary BP.

Analytic Past Simple Tense									
	Perfective Iterative Durative Total								
	N°	%	N°	%	N°	%	N°	%	
16th	37	51%	30	42%	5	7%	73	100%	
$17 \mathrm{th}$	13	33%	26	65%	1	2%	40	100%	
18th	18	23%	52	68%	7	9%	77	100%	
19th	3	5%	45	67%	19	28%	100	100%	
20th	0	_	18	60%	12	40%	30	100%	

Table 4.2: Diachrony of the readings conveyed by the analytic past simple Tense (Adapted from Barbosa 2008: 220).

Still on this matter, some authors claim that the simple past Tense does not have an equivalent periphrasis in BP, such as Cyrino (2013: 302) in "the synthetic form marked for past cannot be replaced by a periphrastic form". Part of our informants, but not all of them, however, accepted the reading of past simple Tense via the analytic ter.PST.IPFV + participle (tinha chovido 'have.PST.IPFV rain.PTCP'). They were presented with sentences

(154) retrieved from Twitter, to which they attributed equivalence in meaning. In (154-b), for instance, the situation of the first sentence – viz. sentindo ciúmes 'feeling jealous' – is simultaneous with its utterance. The second sentence, however, took place at a single point in the past, which is marked by the adverb ontem 'yesterday', standing in for the synthetic past Tense elogiou 'compliment.PST'.

- (154) a. Ontem eu tinha terminado a primeira temporada de yesterday I have.PST.IPFV finish.PTCP the first season of Wandinha, confesso q gostei.

 W. confess.PRS that like.PST
 'Yesterday, I finished the first season of Wandinha. I must confess that I like it.' (cf. ontem eu terminei 'yesterday I finish.PST')

 (2023/21 Twitter)
 - b. sentindo ciúmes do meu melhor amigo porque ontem ele fell.GER jealous of-the my best friend because yesterday he tinha elogiado um dançarino do Raphael Vicente... have.PST.IPFV compliment.PTCP a dancer of-the R. V. 'I am jealous of my best friend, because yesterday he complimented Raphael Vicente's dancer...' (cf. ontem ele elogiou 'yesterday he compliment.PST') (2023/21 Twitter)
 - c. Ontem eu tinha postado no Facebook uma caneca de yesterday I have.PST.IPFV post.PTCP on-the F. a mug of leite com canela que tava tomando pra substituir café. milk with cinnamon that be.PST.IPFV drink.GER to replace.INF coffee 'Yesterday, I posted on Facebook a mug of milk with cinnamon that I was drinking to replace coffee.' (cf. ontem ele postou 'yesterday he post.PST')

 (2022/21 Twitter)
 - d. sera que ele vai mandar as fotos ele **tinha falado**be.FUT that he go.PRS send.INF the photo he have.PST.IPFV talk.PTCP
 ontem????

 yesterday

 'Will he send the pictures that he talked about yesterday?' (cf. ele falou ontem 'he talk.PST yesterday')

(2022/21 - Twitter)

Another set of exciting examples is in (155). In (155-a), there are two back-to-back past actions that were both expressed by the analytic plus-perfect (the first action signalled 1, the second, 2). As we can see in (155-a), the action of terminar 'break up' – marked with the prototypical plus-perfect form viz. ter.PST.IPFV + participle – happened before the action of asking to get back together, a simple past reference, also marked with ter.PST.IPFV + participle. We then see here a co-occurrence of ter.PST.IPFV + participle (tinha pedido 'have.PST.IPFV ask.PST') conveying not only plus-perfect – action 1 – but also a past simple Tense interpretation – action 2. Curiously, in (155-b), there was an inversion of forms to convey past Tense and plus-perfect: The interpretation of the plus-perfect in

(155-b) is conveyed by the simple past morphology – *cimentou* 'cement.PST' – whilst the interpretation of past simple Tense is conveyed by the analytic *ter*.PST.IPFV + participle (*tinha falado* 'have.PST.IPFV talk.PTCP').

- (155) a. Eles [tinham terminado]₁ e ontem ele [tinha they have.PST.IPFV break.PTCP and yesterday he have.PST.IPFV pedido]₂ pra voltar com ela.

 ask.PTCP to-the back.INF with her

 'They [had broken up]₁, and yesterday he [asked]₂ her to make up.' (cf. ontem ele pediu 'yesterday I ask.PST')
 - (2022/21 Twitter)
 - b. Gent meu pai [cimentou]₁ aqui em frente a porta aí ele guys my father cement.PST here in front the door then he [tinha falado]₂ ontem q não era pra pisar. have.PST.IPFV say.PTCP yesterday that no be.PST.IPFV to step.INF 'Guys, my dad [had concreted]₁ here in front of the door, and he [said]₂ yesterday that we weren't supposed to step on it.' (cf. ele falou ontem 'he say.PST yesterday')

(2018/21 - Twitter)

Other authors have also attested to this use of the synthetic past Tense standing in for the plus-perfect. For instance, discussing the variation regarding the synthetic plus-perfect, Coan (2003: 24,47) argues that the definition of an event before an aforementioned time in the past does not exclude the simple past, such as in (156). She relates that "estudei ['study.PST'] is more remote and already concluded considering fiz ['did.PST]; hence it can be reasonably interpreted as a past of the past" – a case of plus-perfect.

(156) Eu antes **estudei** até o ginásio. Depois de dez anos, aí eu I before study.PST until the elementary.school after of ten years then I **fiz** o segundo grau. do.PST the second degree 'Before, I had studied until elementary school. After ten years, then I did high school.'

(Coan 2003: 24)

We see then that there must be some ongoing variation regarding the analytic use of the past simple Tense through the same analytic form that conveys the plus-perfect reading. There are some contexts where this Tense cannot be conveyed by the analytic form, such as *tinha gostado 'have.PST.IPFV like.PST' instead of gostei 'like.PST' in (154-a), at the same time that even the simple past morphology conveys a plus-perfect interpretation, as I showed in (155-b). This behaviour is in line with Cyrino (2013: 302), who argued that the synthetic past Tense lost its temporal interpretation, claiming that it "does not

⁶⁸From the original: "estudei é mais remoto e já concluso por ocasião de fiz; portanto, passível de ser interpretado como um passado do passado."

necessarily convey past/preterite", as in (157). This loss of temporal interpretation in the synthetic past Tense combined with the fact that the analytic ter.PST.IPFV 'have' + participle (tinha chovido 'have.PST.IPFV rain.PST') has been steadily gaining ground over the synthetic past Tense indicates that BP children are just going with the flow of their language being highly verbally analytic.

- (157) a. Eu estou feliz porque eu **vivi** muito bem todos estes anos.

 I be.PRS happy because I live.PST very well all these years

 'I am happy because I have lived very well all these years.' (Cyrino 2013: 312)
 - b. Eu adorei sua blusa!I love.PST your blouse'I love your blouse.' (Cyrino 2013: 312)
 - c. Você **virou** na Rua 7, e **chegou** na Universidade you turn.PST in-the street 7 and arrive.PST in-the university 'Turn on 7th Street, and then you arrive at the University' (Cyrino 2013: 313)

As for the imperfect past Tense, there is an analytical counterpart of estar.PST + gerund (estava chovendo 'be.PST.IPFV rain.PST') in contemporaneity. This equivalence, however, is only established when the reading conveys a situation that was simultaneous with the reference time (cf. (158)), but not a habitual/iterative situation in the past, as in (159) (cf. also Freitag 2007). Therefore, the synthetic imperfect tense seems to convey only aspectual interpretations viz. habit in the past, whilst its analytic equivalent form triggers imperfect past Tense per se.

- (158) a. *Chovia quando a energia acabou.
 rain.IPFV when the energy end.PST
 'It was raining when power went out.'
 - b. **Estava chovendo** quando a energia acabou. be.IPFV rain.GER when the energy end 'I was raining when power went out.'
- (159) a. Quando eu era criança, meu pai me **levava** para a escola. when I be.IPFV child my dad me take.IPFV to the school 'When I was a kid, my father used to take me to school.'
 - b. *Quando eu era criança, meu pai estava me levando para a when I be.IPFV child my father be.IPFV me take.GER to the escola.

 school

'When I was a kid, my father used to take me to school.'

Diachronically, the past habitual reading conveyed by the synthetic imperfect past (*levava* 'take.IPFV') and the past imperfect Tense reading conveyed by the analytic imperfect past (*estava chovendo* 'be.PST.IPFV rain.GER') were in complementary distribution. In his *Syntaxe Historica Portuguesa*, Dias (1918: 188) notes that this distribution was

already in place in texts from the beginning of the 20th century:

when wanting to explicitly designate what was happening at the time a cause happened, so that there is no confusion with the designation of what used to happen, the periphrastic conjugation is used – composed with the verb *estar* with the participle in –ndo, or with the present infinitive preceded by *a*: $n\tilde{a}o$ lhe falei porque estava a jantar ['I didn't tell you because I was having dinner']/ *estava jantando* ['I was having dinner']. ⁶⁹

Finally, in the BP past indicative Tense triad, the analytic ter.PST.IPFV + participle (tinha chovido 'have.PST.IPFV rain.PTCP') has largely replaced the synthetic form of the plus-perfect chovera (rain.PLPF'). Diachronically (cf. Figure 4.1), Coan (2003: 138) shows that the fall of the plus-perfect in relation to the equivalent periphrasis began to increase from the 18th century onwards, with remnants of this synthetic structure still existing in the 20th century, but only in crystallised expressions (e.g. quem me dera 'lit. who me give.PLPF = I wish!').

- (160) a. A Maria já **saíra**, quando o João chegou. the M. already leave.PLPF when the John arrive.PST 'Mary had already left, when John arrived.'
 - b. A Maria já **tinha saído**, quando o João chegou. the M. already have.IPFV leave.PTCP when the John arrive.PST 'Mary had already left, when John arrived.'

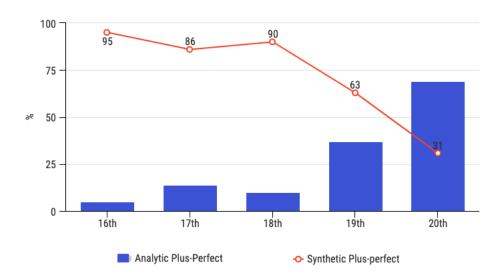


Figure 4.1: % of occurrence of synthetic and analytic plus-perfect over time (Adapted from Coan 2003: 138).

⁶⁹From the original: "querendo-se designar explicitamente o que se estava passando no momento em que uma causa aconteceu, de modo que não haja confusão com a designação do que costumava acontecer, emprega-se a conjugação periphrastica – composta com o verbo estar com o particípio em -ndo, ou com o infinitivo presente precedido de a: não lhe falei porque estava a jantar/ estava jantando."

In the age group from 5 to over 50 years old, the same author attests to no occurrence of the synthetic form of plus-perfect in orality both in the 20th and 21st centuries, as Table 4.3 shows (Coan 2003: 146). I take that as evidence that the synthetic form of the plus-perfect is no longer part of the internal grammar of the Brazilian Portuguese speaker, and the remnants of this synthetic form are clear only through fixed expressions (cf. also Araújo-Adriano & Coelho 2022).

	Age group	Synthetic plus-perfect	Analytic plus-perfect
	Age group	$(e.g.\ comera)$	$(e.g.\ tinha\ comido)$
21-44 (2000, 2002)	05–06 years	0	0
21st century (2000–2002)	07-14 years	0	33
	15-24 years	0	29
20th Century (1997)	25-49 years	0	78
	+ 50 years	0	34

Table 4.3: Occurrences of plus-perfect in speech (Adapted from Coan 2003: 146).

In view of this, in contemporary times, it is reasonable to state that the synthetic forms of the imperfect and plus-perfect past were replaced by their analytical forms estar.Pst + gerund and ter.Pst.Ipfv + participle, respectively. Combined with this analytic pattern, there has also been a certain tendency to convey the simple past Tense with the analytic form ter.Pst.Ipfv + participle, albeit this variation must be further investigated. Hence, the following scenario:

(161)	Verbal paradigm of contemporary BP: PAST TENSE						
	Tense	Synthetic Form	Analytic Form				
	Simple Past	eu acordei	[?] eu tinha acordado				
	Past Imperfect	eu acordava	eu estava acordando				
	Plus-perfect	eu acordara	eu tinha acordado				

Future Indicative Tense Paradigm

I close the indicative paradigm with future Tenses. Many works attest to the fact that the synthetic simple future (chover'a 'rain.FUT') is practically residual in orality. There is, instead, the analytic ir.PRS + infinitive ($vai\ chover$ 'go.PRS rain.INF') or ir.FUT + infinitive ($ir\'a\ chover$ 'go.FUT rain.INF') equivalent to such a Tense (Gonçalves 2013, Araújo-Adriano 2019b, 2021b):

- (162) a. *Joana quererá comer goiabada com banana.
 - J want. Fut eat. Inf guava with banana
 - 'J. will want to eat guava with banana.'
 - b. Joana vai querer comer goiabada com banana.
 - J. go.PRS want.INF eat.INF guava with banana
 - 'J. will want to eat guava with banana.'

- c. Joana **irá querer** comer goiabada com banana.
 - J. go.fut want.inf eat.inf guava with banana
 - 'J. will want to eat guava with banana.'

Diachronically, Araújo-Adriano (2019b) shows that the analytic form of the present tense ir.PRS + infinitive overlapped with the synthetic form in the 19th century, and even with the other analytic form available in previous centuries – viz. haver de + infinitive ($h\acute{a} de chover$ 'have.PRS of rain.INF') –, so that 20th-century children would not naturally and spontaneously acquire the synthetic form (represented in Table 4.4 by preschool). According to Araújo-Adriano (2019a, 2020), this obsolete form of the verbal paradigm is not part of the internal grammar of BP speakers, but of peripheric grammar (in the sense of Chomsky 1986: 8), since the more educated the speaker is, the greater the amount of synthetic future (only) in writing (1a–4a/5a–8a/academics). In speech (cf. Table 4.5), however, the synthetic future is practically residual, regardless of education.

		Analytic	Synthetic			Analytic	Synthetic
Schooling in synchrony	Preschool (oral) 1 ^a -4 ^a 5 ^a 6 ^a 7 ^a 8 ^a Academics	100% 98% 83% 67% 89% 67% 13%	0% 2% 17% 33% 11% 33% 87%	Diachrony	18th 19th 20th 21st	26% 27% 80% 84%	64% 46% 6% 1%

Table 4.4: Future Tense Diachronic and Synchronic Data (Adapted from Araújo-Adriano 2020: 313).

Education level		+ nitive	Syn	thetic		er de + initive	Pre	esent	Mes	soclisis	То	tal
	\mathbf{N}	%	N	%	\mathbf{N}	%	N	%	\mathbf{N}	%	\mathbf{N}	%
Undergraduates	122	100	0	-	0	-	0	-	0	-	122	100
Graduates	98	96	4	4	0	-	0	-	0	-	102	100
Professors	66	97	2	3	0	-	0	-	0	-	68	100
Total	286	98%	6	2%	0	0%	0	0%	0	0%	292	100

Table 4.5: Simple Future in academics' speech (Adapted from Araújo-Adriano 2020: 311).

The analytic future Tense construction also triggers another interpretation, viz. prospective aspect. In addition to ir.PRS + infinitive ($vai\ chover$ 'go.PRS rain.INF') triggering a future interpretation (163-b), analysing comedy sketches from YouTube, Araújo-Adriano (2016: 500) noted that it also triggered a prospective reading (163-a), a [-DISTANT] event, in the author's terms.⁷⁰For example, in (163-a), right after the character said $vou\ receitar$

⁷⁰Cf. also Gibbon's (2000: 92) tempo próximo 'near time' and Oliveira's (2006: 124) futuro próximo 'near future'.

aqui 'I will prescribe here', they prescribed something.⁷¹

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(163) (Araújo-Adriano 2016: 501)
```

- a. Eu não **vou** casar com ninguém. I not go.PRS marry.INF with anybody 'I will not marry nobody.'
- b. *E para sua pele, eu vou receitar aqui para você esses dois* and for you skin I go.PRS prescribe.INF here for you these two *garranchos ilegíveis*.

 scribble ineligible

'And for your skin, I will now prescribe you here these two ineligible scribbles.'

Another piece of evidence for this prospective reading triggered by ir.PRS 'go' + infinitive comes from language acquisition. BP children do not acquire this analytic construction with a future Tense interpretation in the first place; the primaeval value they acquire, instead, is that of prospective aspect (Araújo-Adriano 2019a: 721), as we can see in Table 4.6. In (164), we can see that after the child said she was going to wear another plastic trouser leg, she immediately put it on (signalised by the transcription of the longitudinal data), a prospective usage.

```
(164)
         ADULT. Viva a dona Raquel que pôs
                                                        a
                                                            calca
                                                                   plástica sozinha!
                 hurray the miss R.
                                         that wear.PST the trouser plastic alone
         CHILD. A te adê
                            ota?
                 ? ? where the other
                                      C\hat{e} vai
                                                                     também?
         ADULT. Outra, ta
                                aí.
                                                           outra
                                                  por
                 other be.PRS there you go.PRS wear.INF the.other too
         CHILD. Vô
                 go.PRS
         ADULT. Mas põe
                                s\acute{o}
                                     uma.
                 but wear.IMP only one
         CHILD. O v \hat{o}
                           пô
                                    ota
                                          aqui (Ela senta no
                                                                 chão para por.)
                 I go.PRS wear.INF other here she seats on-the floor to
                                                                           wear
         'ADULT. Long live R., who wore the plastic trouser alone!
         CHILD. ?? where is the other?
         ADULT. The other one is there. Will you wear the other one too?
         CHILD. I will.
         ADULT. Ok, but wear only one.
         ADULT. I will wear the other one here. (She seats on the floor to wear it.)
                                                           (Araújo-Adriano 2019a: 718)
```

Finally, regarding future in the past (dancaria 'dance.COND'), two analytic constructions in Portuguese replace the synthetic form (165-a), both headed by the auxiliary ir 'go', one in the future tense and the other in the imperfect tense, respectively ir.COND +

⁷¹https://www.youtube.com/watch?v=GOr8skudD3U, from 0:05.

	Future Construction								
\mathbf{Age}		Analytic	Synthetic Future						
Ü	\mathbf{Prosp}	ective	Fut	ure	Fu	ture			
	Child	Adult	Child	Adult	Child	\mathbf{Adult}			
01;08	1	57	0	4	0	0			
01;10	28	206	0	7	0	3			
02;01	84	208	1	8	0	4			
02;03	124	335	5	9	0	13			
02;08	90	293	15	26	0	17			
03;00	63	220	11	36	0	11			
03;07	81	186	13	36	0	16			

Table 4.6: Number of occurrences of futurity expressions produced by children and adults (Adapted from Araújo-Adriano 2019a: 720).

infinitive (ia dançar 'go.PST.IPFV dance.INF') (165-b) and ir.PST.IPFV + infinitive (iria dançar 'go.COND rain.INF'), as in (165-c)-(165-d).

(165) a. Eu **faria** uma casa com 40 cômodos se eu ganhasse na I do.FUT.PST a house with 40 rooms if I win.COND on-the loteria.

'I would build a house with 40 rooms if I won at the lottey.'

b. Eu tinha certeza que minha mãe **iria** me **dar** ovo de I have.PST sure that my mom go.FUT.PST me give.INF egg of páscoa.

easter

'I was sure my mom would give me and Easter egg.'

- c. Você acha que a gente ia se dar bem juntos? you think that the guys go CL give well together 'Do you think that we would get along well?'
- d. Eu sou tão desligado q perguntei pra dona do salão se I be.PRS so off that ask.PST to-the owner of-the hair.salon if ela ia ir na festa na casa dela she go.FUT.PST go.INF in-the party at-the house of-her 'My heads are so much in the clouds that I asked the salon owner if she was going to the party at her house.'

(2022/21 - Twitter)

In some contexts, the future in the past Tense can also be conveyed by the synthetic imperfect Tense morphology (*beijava* 'kiss.PST.IPFV'), as in (166-a)–(166-b) (Costa 1997: 12), but such use seems to be more consolidated in European Portuguese: Some grammatical contexts end up being ungrammatical in the Brazilian variety, which is the case of (166-d),

and (166-e). Diachronically, Costa (2006: 89) attests that haver.PST.IPFV + de + infinitive (havia de chover 'have.PST.IPFV of rain.INF'), was also used to convey future in the past Tense (cf. (167)), but not anymore.

- (166) a. Sem sombra de dúvidas: eu **beijava** fácil o Brad Pitt. without shadow of doubts I kiss.PST.IPFV easy the B. P. 'Without a doubt: I would easily kiss B.P.'
 - b. Se eu tivesse dinheiro, eu **viajava** mais. if I have.COND money I travel.PST.IPFV more 'If I had money, I would travel more.'
 - c. Se eu fosse você, só **usava** Valisère. if I be.COND you just wear.PST.IPFV V. 'If I were you, I would only wear V.'

(Adapted from Costa 1997: 12)

- d. Eu gostava de jantar contigo qualquer dia. (*BP/okEP)
 I like.PST.IPFV of have.INFdinner with=you any day
 'I would like to have dinner with you someday.'
- e. Eu, neste momento, **bebia** um cafezinho. (*BP/okEP)
 I in-this moment drink a coffee
 'I would drink a coffee right now.'

(Adapted from Mira Mateus et al. 2003: 157)

if I have.PST.IPFV money have.PST.IPFV of scrub.INF the harmonica assim, na cara de duzentas mil pessoas.

like.this in-the face of two.hundred thousand people

'if I had money (...) I would rub the harmonica like this, in the face of two hundred thousand people.'

(Adapted from Costa 2006: 89)

The verbal paradigm of the future indicative of contemporary BP, then, is outlined as follows, with their respective analytic forms:

(168) Verbal paradigm of contemporary BP: FUTURE TENSE
Tense Synthetic Form Analytic Form
Future_{present} eu acordarei eu vou/irei acordar
Future_{in the past} eu acordaria eu ia/iria acordar

Subjunctive Paradigm

Portuguese has three verb tenses in subjunctive Mood. The first – present subjunctive – is marked by changing the thematic vowel of the verbal root, depending on the conjugation. Thus, verbs from the first conjugation (ending in -a), viz. amar 'love', receive the ending in -e (169-a), from the second conjugation (ending in -e), viz. beber 'drink', the ending -a (169-b), and verbs from the third conjugation (ending in -i), viz. partir 'leave', receive the ending -a (169-c).

- (169) a. Eu espero que a Maria **ame** (amar) o João. I hope that the M. love.sbjv the J. 'I hope M. loves J.'
 - b. João quer que a Maria $beb\underline{a}$ ($beb\underline{e}r$) todo o vinho com J. want.INF that the M. drink.SBJV all the wine with ele.
 - 'J. wants that M. drinks the whole wine with him.'
 - c. Os pais não querem que o filhos **partam** (partir). the parents no want.PRS that the children leave.SBJV 'Parents don't want their children to leave.'

These subjunctive synthetic verbs present the equivalent analytic constructions headed by the auxiliary ir.SBJV (v'a chover 'go.SBJV rain.INF'), as in (170-b), (171-b) and (172-b), with their synthetic equivalent form on the a-lines.

(170) a. Eu espero que a minha mãe não me **acorde** amanhã I hope.PRS that the my mom not CL.1SG wake.SBJV tomorrow cedo.

early

'I hope my mom does not wake me up tomorrow morning.'

- b. Eu espero que a minha mãe não **vá** me **acordar**I hope.PRS that the my mom not go.SBJV CL.1SG wake.INF
 amanhã cedo.
 tomorrow early
 'I hope my mom does not wake me up tomorrow morning.'
- (171) a. A Julia ligou e disse que talvez ela **chegue** atrasado the J. call.PST and tell.PST that perhaps she arrive.SBJV late na reunião. in-the meeting
 - 'J. called and said that she might arrive late for the meeting.'
 - b. A Julia ligou e disse que talvez ela vá chegar the J. call.PST and tell.PST that perhaps she go.SBJV arrive.INF atrasado na reunião.

 late in-the meeting
 "J. called and said that she might arrive late for the meeting."
- (172) a. Maria tem esperança de que o trem **parta** mais cedo.

 M. have.PRS hope of that the train leave.SBJV more early 'M. hopes that the train leaves earlier.'
 - b. Maria tem esperança de que o trem **vá partir** mais cedo.

 M. have.PRS hope of that the train go.SBJV leave.INF more early 'M. hopes that the train leaves earlier.'

With respect to the past subjunctive (past Tense in the English second conditional),

whereas standard BP expresses this Tense by the affix -sse added to the verb root (mandasse 'send.cond'), BP speakers use the equivalent analytic structure headed by ir.cond + infinitive (fosse mandar 'go.cond send.inf'), as demonstrated in (173). For instance, in (173-b), the speaker complained about the steep price charged by the language education company Wizard for a pen. Hence, he says he would only buy it if the company gave him the final certificate. To convey this conditional reading he used the analytic past subjunctive form fosse dar 'go.cond give.inf', equivalent to 'se desse' 'if give.cond'.

- te mandar nudes, também te deixaria (173)a. Se ela **fosse** verif she be.COND you send.INF nudes too CL let.FUT.PST see.INF pessoalmente. Se não mandasse, também não faria nadaif not send.COND too not do.FUT.PST anything with personally você depois de você qastar toda a sua grana. you after of you spend.INF all the your money 'If she sent you nudes, she would also let you see her in person. If she didn't send it, she wouldn't do anything with you either after you've spent all of your money.' (cf. se ela te mandasse 'if she send.COND you')
 - b. Eu só compraria se ela **fosse** me **dar** o diploma.

 I only buy.FUT.PST if she go.COND me give.INF the certificate

 'I would only buy the 40-reais pen if Wizard gave me the certificate'. (cf. se ela me desse 'if she give.COND you')

(2022/21 - Twitter)

(2022/21 - Twitter)

c. tava pensando p onde eu iria se eles **fossem** me be.PST.IPFV think.GER to where I be.FUT.PST if they be.COND me **manda(r)** embora aq de casa e to perdida realmente send.INF away here of house and be.PRS lost really 'I was thinking where would I go if they kicked me out of the house and I'm really lost' (cf. se eles me mandassem 'if they send.COND you')

(2022/21 - Twitter)

d. mas acho que se ela **fosse** me **mandar** mensagem,
but think.PRS that if she be.COND me send.INF message
provavelmente seria me xingando me chamando de tóxica egoísta
probably be.FUT.PST me curse.GER me call.GER of toxic selfish
e blablabla
and blahblahblah
'But I think that if she sent me messages, it would probably be cursing me
and calling me toxic, selfish, and blahblahblah.' (cf. se ela me mandasse 'if

(2022/21 - Twitter)

Finally, for conveying a future subjunctive reading, BP speakers also use the analytic *ir*.FUT.SBJV + infinitive (*for trazer* 'go.FUT.SBJV bring.INF'). For instance, in (174), instead of using the future subjunctive synthetic forms *trouxer* 'bring.FUT.SBJV', *for*

she send. COND you')

'be.Fut.Sbjv', tiver 'have.Fut.Sbjv', and estiver 'be.Fut.Sbjv', respectively, speakers used the analytic construction for trazer 'go.Fut.Sbjv bring.Inf', for ser 'go.Fut.Sbjv be.Inf', for ter 'go.Fut.Sbjv have.Inf', and for estar 'go.Fut.Sbjv be.Inf'.

- (174) a. o assunto do almoço de família hoje foi sobre quando eu the subject of-the lunch of family today be.PST about when I for trazer alguém pra eles conhecerem go.SBJV.FUT bring.INF someone to they know.INF 'The topic of today's family lunch was about when I bring someone here for them to meet.' (cf. quando eu trouxer 'when I bring.SBJV.FUT')
 - (2021/21 Twitter)
 - b. Espero ganhar na loteria quando eu **for ser** mãe. hope.PRS win.INF in-the lottery when I go.SBJV.FUT be.INF mom 'I hope to win the lottery when I become a mom.' (cf. quando eu for 'when I be.FUT.SBJV')

(2022/21 - Twitter)

c. Já tá tudo certo, quando eu **for ter** filho already be.PRS everything right when I be.SBJV.FUT have.INF son vou comprar um cachorro desse aí pra crescer junto com go.PRS buy.INF a dog of-this there to grow.INF together with ele.

him

'Everything is already decided: When I have a son, I will buy a dog like this so they grow up together.' (cf. quando eu tiver 'when I have.FUT.SBJV')

(2022/21 - Twitter)

d. Já sei! Pra eu ter disposição eu preciso acordar already know.PRS to I have.INF mood I need.PRS wake.INF cedo, mesmo quando eu for estar de folga.

early even when I go.SBJV.FUT be.INF of spare 'I know! To be in the mood, I need to wake up early, even when I am on my day off.' (cf. quando eu estiver 'when I be.FUT.SBJV')

(2022/21 - Twitter)

Considering the present, past, and future of the BP subjunctive, the verbal paradigm of this Mood is presented as follows.

(175) Contemporary BP verbal paradigm: SUBJUNCTIVE MOOD

Tense Synthetic Form Analytic Form
Present que eu acorde que eu vou/vá acordar
Conditional se eu acordasse se eu fosse acordar
Future Subjunctive quando eu acordar quando eu for acordar

Imperative Paradigm

As far as the imperative mood is concerned, a category used not only to give commands but also to give permission or advice (Palmer 2001: 80), there are equivalent analytic constructions headed by the verb estar.IMP + gerund (esteja estudando 'be.IMP study.GER') as in (176), and ir.IMP/.PRS + infinitive ($v\acute{a}$ trabalhar 'go.IMP work.ING'/vai trabalhar 'go.PRS work.INF') (177), used when the speaker gives some kind of advice to the interlocutor. In (177-a), for instance, the analytic imperative $v\acute{a}$ cair 'go.IMP fall.INF' is used in place of the synthetic imperative caia 'fall.IMP'.

(176) **Estejam** todos **estudando** quando eu voltar!
be.IMP everyone study.GER when I returnINF
'Everyone be studying when I get back!'

(Lunguinho 2011: 135)

- (177) a. Eduardo do céu, não **vá cair** nessa dnv pelo amor de Deus E. from sky not go.IMP fall.INF in-this again by love of God 'E., do not fall for this again, for God's sake.' (cf. não caia 'do not fall.IMP') (2021/21 Twitter)
 - b. Querido, eu só sou simpática, não **vá achar** que tô honey I just be.PRS pleasant not go.IMP think.INF that be.PRS dando moral give.GER moral 'Honey, I'm just being nice. Do not think that I am giving you a chance!' (cf. não ache 'do not think.IMP')

(2022/21 - Twitter)

c. Nao **vai** acreditar em tudo que vc ve pelo amor de not go.PRS believe.INF in everything that you see.PRS by love of deus

God

'Do not believe in everything you see, for God's sake!' (cf. não acredite 'do not believe.IMP')

(2021/21 - Twitter)

d. Só não vai destruir o coração dele como você faz just not go.PRS destroy.INF the heart of=he as you do.PRS comigo

with=me

'Just do not destroy his heart, just like the way you do to me.' (= $n\tilde{a}o$ destrua 'do not destroy.IMP')

(2018/21 - Twitter)

Thus, the imperative mood also has in its paradigm periphrastic structures that replace their equivalent synthetic forms. Such a paradigm is schematised as follows.

(178) Contemporary Verbal paradigm: IMPERATIVE MOOD

Synthetic Form Analytic Form

Afirmative leia! vá/vai ler!

esteja lendo (quando...)!

Negative não leia! não vá/vai ler!

Summary of the Section

In this section, I showed that BP has a significantly analytical temporal paradigm, with analytic structures equivalent to its synthetic forms, both from the semantic point of view and from the morphological point of view. This means that BP is configured as a language with abounding structures with auxiliaries to convey temporal notions, not only in the Indicative category as suggested by Reintges & Cyrino (2018, 2016). Hence, for a more accurate description, Table 4.7 should amend Reintges & Cyrino's (2018: 191) table (cf. Table 4.1).

Mode	Tense	Synthetic Form	Analytic Form
	Present	eu acordo	eu estou acordando eu tenho acordado
	$Past_{Perfect}$	eu acordei	([?] eu tinha acordado)
Indicative	$Past_{Imperfect}$	eu acordava	eu estava acordando
	$Past_{Plus-perfect}$	eu acordara	eu tinha acordado
	$Future_{Present}$	eu acordarei	eu vou acordar
	Conditional	eu acordaria	eu ia acordar
	Present	que eu acorde	que eu vá/vou acordar
Subjunctive	Past	se eu acordasse	se eu fosse acordar
	Future	quando eu acordar	quando eu for acordar
Imperative	$Imperative_{Afirmative}$	acorde!	vá/vai acordar! esteja acordado!
	$Imperative_{Negative}$	não acorde!	não vá/vai acordar!

Table 4.7: BP Verbal Paradigm.

Furthermore, we also saw that some analytic constructions trigger not only Tense but also some Aspect, and Mood interpretations. This is the case of ir + infinitive, estar + gerund, and ter + participle. Below, I summarise the syncretic character of auxiliary constructions in present-day BP, which shows that, by only being exposed to these analytic forms, children do not entertain a specific reading.

(179) a. Syncretic Analytic Constructions

```
ir. PRS + infinitive \rightarrow future Tense (cf. (162-b)/(163-a))

\rightarrow prospective Aspect (cf. (163-b)/164)

estar. PRS + gerund \rightarrow present Tense (cf. (149-b))

\rightarrow habitual Aspect (cf. (150-b))

ter. PST. IPFV + participle \rightarrow past Tense (cf. (154)/(155))

\rightarrow plus-perfect Aspect (cf. (160-b))
```

4.2 Some properties of the analytic construction estar + gerund

A first hypothesis customarily associated with a change in a temporal system is the grammaticalisation of auxiliary verbs. In our case, the hypothesis would be that the synthetic present verbs lost ground to their analytic construction counterpart because the verb *estar* 'be' was grammaticalised from a full to an auxiliary verb so that the later co-occurred with the former. Within this perspective, there would be a path from lexical to functional for the verb *estar* 'be'.

Several authors attest in Medieval Portuguese a lexical reading of estar de pé 'be standing' for the verb estar < STARE, different from the reading of estar sentado 'be sat' found for the verb ser 'be' < SEDERE (Mattos e Silva 2001: 65, Moraes de Castilho 2005: 151, Castilho 2010: 398–399). Specifically, Moraes de Castilho (2005: 152) exemplifies cases where estar 'be' figured as a full/lexical verb in an intransitive use in the 13th century:

- (180)Aoserão, quando siiam comendo, aqui vos vem a donzela to-the be.FUT when ? eat.GER here CL come.PRS the maiden laida [...] E vio $Galuam \ star \ e$ foi-se para ante and see.pst G. be.INF and go.PST=CL to before he and disse-lhe assi.say.PST=CL this 'when? eating, here comes the maid laida [...] And she saw Galuam standing and went before him and said to him the following. (13th Century, Moraes de Castilho 2005: 196)
 - b. [...] e tanto perdera ja do sangue que nom podia
 and so lose.PLPF already of-the blood that no can.PST.IPFV
 ja estar.
 already be.INF
 'And he had already lost so much blood that he could no longer be stood.'
 (13th Century, Moraes de Castilho 2005: 196)
 - c. E onde os conhecerom, steverom, e Senella seu irmão de Caulac and where CL know.PST be.PST and S. his brother of C. falou primeiro.

 speak.PST first

'And where they had known them, they had sat, and Senella her brother from Caulac spoke first.'

(13th Century, Moraes de Castilho 2005: 154)

d. Pois Lançarot e Persival chequipm aa cruz que estava because L. and P. arrive.PST to-the cross that be.PST.IPFV cella, **esteveram** atees que disse Persival a Lançarot [= abefore the cell until that sai.pst P. to L. be.PST permaneceram 'remain'

'For Lancelot and Percival came to the cross that was before the cell, they remained until Perceval said to Lancerot.'

(13th Century, Moraes de Castilho 2005: 154)

The author also deemed this lexical version of estar 'be' to be disappearing because in the same century the expression $em\ p\acute{e}$ 'lit. on foot' was used with $estar\ (181)$, perhaps to guarantee the original meaning of the Latin stare, she argued. Regarding the vanishing of full estar, Moraes de Castilho (2005: 149) shows some steps this verb underwent from lexical to functional.

(181)Senhor, quando os auogados razoaren uós, fazede-os antestarenthe lawyers reason.INF before us make.IMP=CL be.INF on nõ consintades a elles que digan parauras torpes, nen uillãas, pee efeet and not allow.IMP to they that say.SBJV? nor? senon aquellas que perteecen preytosunless to-them that belong.PRS to-the blacks 'Lord, when the lawyers reason before us, make them stand up and do not allow them to say??, nor?, but those that belong to the blacks.'

(Moraes de Castilho 2005: 153)

This grammaticalisation process, as Moraes de Castilho (2005: 111) points out, started in Latin and took three steps: (i) in Latin, as well as in the oldest texts in Medieval Portuguese, estar (180) was a full intransitive verb, and selected a [+ANIMATE] subject (Moraes de Castilho 2005: 152); (ii) still in Latin, but also in Romance, estar started to exhibit properties of functional verbs (182): It displayed other types of predicates – viz. adjectives, participles, prepositional phrases, adverbs, locatives –, accepted [-ANIMATE] subjects but still restricted their [-ANIMATE] subjects to elements in the vertical only, such as trees, castles, and steep hills (Moraes de Castilho 2005: 157); and (iii) in Medieval Portuguese, estar was grammaticalised, not selecting its subject, and having non-finite domain as its complements (Moraes de Castilho 2005: 216, 221): Gerunds (183) and the prepositional infinitive (184). This latter verb complement, as the author points out (Moraes de Castilho 2005: 221), barely appeared in the data, from where she found only three occurrences in the 13th century.

(182) a. e perdoar que no mal deostasse, com' el fez a mim, and forgive.INF that in-the bad? with he do.PST to me estando en sa pousada be.GER in his inn

ord forming that in the had? on he did to me hai

'and forgive that in the bad?, as he did to me, being in his inn.'
(13th Century, Moraes de Castilho 2005: 165)

b. *e levou-o a ũa casa de ordem que stava em ũa valle* and take.PST=CL to a house of order that be.PST.IPFV in a valley 'and took him to a house of order that was in a valey.'

(13th Century, Moraes de Castilho 2005: 165)

(183) a. E a pastor parecia muy ben e choraua e **estaua** and to minister seem.PST very well and cry.PST.IPFV and be.PST.IPFV cantando.

sing.GER

want to move.

'And the minister seemed very well, and cried, and was singing.'

(13th Century, Moraes de Castilho 2005: 220)

b. Entő começaron a feryr nos da outra parte que stavã so start.PST to hurt.INF CL of-the other part that be.PST.IPFV sperando que se tornassem pera Julyo Cesar wait.GER that CL become.COND? J. C. 'Then, they started to hurt us on the other side that was waiting to become? J. C.'

(14th Century, Moraes de Castilho 2005: 220)

c. Oque tu estás coidando? Vem ẽ pos mỹ e sigui-me what you be.PRS care.GER come.IMP and? me and follow.IMP=ME e eu te mostrarey teu padre e tua madre. and I CL show.FUT your father and your mother 'What are you taking care of? Come and? me, and follow me, and I will show you your father and mother.'

(15th Century, Moraes de Castilho 2005: 220)

(184) a. Quando se ella assi vio cercada, steve a fazer sembrante when if she this see.PST surrounded be.PST to do.INF countenance que nom queria mover.

that no want.PST move.INF

'When she found herself surrounded, she was making a face that she didn't

(13th Century, Moraes de Castilho 2005: 221)

b. quando aquelles que stavam a ouvir este conto
when those that be.PST.IPFV to listen.INF this tale
entenderom que aquel era Erec
understand.PST that that be.PST.IPFV E.

'When those people that was listening to this tale understood that the guy
was E.'

(13th Century, Moraes de Castilho 2005: 221)

Consequently, it seems reasonable to state that the hypothesis that "the grammaticalisation of estar from full to auxiliary favours the preference for this over the synthetic form" attested in the previous Chapters is not supported since this grammaticalisation took place in much earlier periods of the language, starting in the 12th century (Moraes de Castilho 2005: 262), there not being any evidence of estar in its full version after the mid-14th century (Castilho 2010: 399). Thus, it does not seem to be the case that this process directly influenced the preference for the analytic construction instead of the synthetic present Tense form: When the synthetic present lost ground in the 19th century (cf. Section 3.3), estar auxiliary had already been part of the language system as a functional item, that is, as an auxiliary verb, since the 14th century.

Throughout the linguistic tradition, many works have proposed different criteria, often divergent, to define whether or not a BP verb is an auxiliary (Pontes 1973, Lobato 1975, Lunguinho 2011). The immediate consequence of this incongruity is the disagreement regarding the list of auxiliaries in Brazilian Portuguese (Lunguinho 2011, Resende & Araújo-Adriano 2019, Araújo-Adriano 2019b). Inasmuch as the list of auxiliary verb properties is relatively large, I selected some semantic, morphological, and syntactic properties to explore the functional status of estar.PRS.

Defective Paradigm

It is common for auxiliary verbs not to exhibit a full verb paradigm (Lunguinho 2011: 39, Ledgeway 2017: 847), that is, are not available for every Mood, Tense, and non-finite forms. This is the case of the auxiliary ter 'have' that is not available for the past perfect (e.g. *todos tiveram visto esse filme antes 'everybody have.pst watched this movie before' – Lunguinho 2011: 85), imperative (e.g. *tenham terminado o trabalho quando eu chegar! 'have.imp finished the work after I arrive' – Lunguinho 2011: 85), for instance, and the auxiliary ir 'go' that does not have a non-finite form (e.g. *Os alunos começaram a ir pensar no... 'the students started to will.inf to think' – Lunguinho 2011: 167). Regarding the auxiliary estar, Lunguinho (2011: 135) shows that this verb has a full morphological paradigm, being available for the past perfect (185-a), imperative (185-b), infinitive (185-c), participle (185-d). The only paradigm estar 'be' does not have is the possibility of having as a verb complement another auxiliary estar, as in (186).⁷²

(185) (Lunguinho 2011: 135)

- a. Os fiéis **estiveram** rezando durante toda a noite. the faithful be.PST pray.GER during all the night 'The faithful were praying throughout the night.'
- b. **Estejam** todos estudando quando eu voltar. be.IMP all study.GER when I back.INF 'Be studying when I come back'
- c. A nossa loja vai **estar** funcionando por volta das dez da the our store go.PRS be.INF work.GER by around of-the ten of-the

 $^{^{72}}$ For the the complete examples of the full verb paradigm attributed to the auxiliary *estar*, cf. Lunguinho (2011: 135–6).

 $manh\tilde{a}$. morning

'Our store will be open around ten in the morning.'

- d. Essa menina tem **estado** chorando desde cedo. this girl have.PRS be.PTCP cry.GER since early 'This girl has been crying since early.'
- (186) *O aluno está estando estudando. the student be.PRS be.GER study.GER 'The student is being studying'

(Lunguinho 2011: 1366)

Availability for Nominalisation

From the morphological point of view, only lexical verbs seem to be available for nominalisation (Resende 2021: 6649). Thus, the lexical verb ir 'go' has a nominalisation available in its motion use but not in its functional/future use (187-b). The same expectation is met regarding the auxiliary estar. Nominalisation is only possible in its lexical use, the one that has a static interpretation, as in (188): estado, derived from the masculine singular past participle from estar status (188-a) with, and estadia, derived from the feminine form of estado, plus the suffix -ia (188-b). Despite the availability of these nominalizations for the erstwhile lexical estar, there are no nominalizations for the functional estar, which reinforces its functional status.

- (187) a. A ida da Maria à padaria foi rápida.

 the be.PTCP of-the M. to-the bakery be.PST fast

 'M.'s trip to the bakery was quick.' (cf. o deslocamento da Maria à padaria foi rápida 'the displacement of M. to the bakery was fast', from the lexical ir 'go')
 - b. *A ida da viagem da Maria para a Europa.
 the be.PTCP of-the trip of-the M. to the Europe
 (cf. Maria vai viajar para a Europa 'M. will travel to Europe', from the functional ir 'go')
- (188) a. O estado gasoso não tem forma nem volume definidos. the be.PTCP gaseous no have.PRS form nor volume defined 'The gaseous state has no definite shape or volume.' (cf. O local onde se encontra esquis fica logo ali 'the place where one finds skis is over there', from the lexical estar 'be')
 - b. A **estadia** da Maria foi caótica. the stay of-the M. be.PST chaotic 'M.'s stay was chaotic.'

Argument Selection

When investigating the difference between auxiliary and non-auxiliary verbs, one property that emerges regards argument selection: Given that the interpretation of lexical verbs incorporates the relation between them and their arguments, lexical verbs select their arguments differently from functional verbs, which only have grammatical content, not selecting arguments. Considering that, we saw in the discussion of the examples (180)–(184) that lexical estar semantically selected its external argument as only [+ANIMATE] subjects, and thereafter, when it started to become functional, the only [-ANIMATE] licensed were objects in the vertical (on the animacy of the subject of lexical estar in Arcaic Portuguese, cf. also Mattos e Silva 1984: 448).

In spite of that, auxiliary estar does not exhibit restriction regarding subjects, being able to figure with a DP of any nature, as long as it is compatible with the selection of the concatenated lexical verb, as it is the case of (189-a). Since apodrecer 'rot' licenses a [-ANIMATE] subject, (189-b) is grammatical. Contrarily, falar 'speak' only licenses a [+ANIMATE] subject (189-c), hence the ungrammaticality of (189-d). The absence of selection of arguments is also evidenced when estar licenses expletive subjects, as shown in (189-e).

- (189) a. Queijo apodrece. cheese rot.PRS 'Cheeses rot.'
 - b. O queijo **está** apodrecendo. the cheese be.PRS rot.GER 'The cheese is rotting.'
 - c. *Queijo fala. cheese talk.PRS 'Cheeses talk.'
 - d. *O queijo está falando. the cheese be.PRS talk.GER 'The cheese is talking.'
 - e. **Está** chovendo. be.PRS rain.GER 'It's raining.'

Given the grammatical properties of triggering temporal notions of functional verbs, one expects them to occur with any kind of verb. This is the case of estar, which combines with all types of verbs, regardless of being transitive (190-a), intransitive (190-b), unaccusative (190-c), or impersonal (190-d)/(190-e).

- (190) a. João está **fumando** lá fora.
 - J. be.PRS smoke.GER out there
 - 'J. is smoking outside.'
 - b. João está **suando**.
 - J. be.PRS sweat.GER

- 'J. is sweating.'
- c. Olha, o prédio está caindo. look the building be.PRS fall.GER 'Look, that building is falling.'
- d. Está chovendo. be.PRS rain.GER 'It's raining.'
- e. Psiu! Está **tendo** aula aqui. shiu be.PRS have.GER lesson here 'Shiu! There's a class going on here.'

Desemanticisation

Another property normally attributed to auxiliary verbs concerns desemanticisation, semantic impoverishment, loss of lexical content (Roberts 1992a: 219, Heine & Kuteva 2002: 2, Roberts & Roussou 2003: 29, Ledgeway 2017: 847), that is, when a verb is grammaticalised, its notional properties are lost. This is the case, for example, of the verb habere which, in classical Latin, had as its primary meaning possess (cf. (191)), but which was reanalyzed as future and conditional (cf. (192)), consequently losing its original value.

(191) De re publica nihil **habeo** ad te scribere. of thing public nothing have.PRS to you write.INF I have nothing to write to you about the republic.

(Roberts 1992a: 231)

(192) et quod sum, essere abetis and that be.PRS, be.INF have.INF And that I am, you will to be.

(Roberts 1992a: 234)

It is immediately clear that the reading of estar de $p\acute{e}$ 'stand' associated initially with the verb estar was not maintained in the auxiliary use. The following sentences should be ungrammatical and incoherent if the reading estar de $p\acute{e}$ of the verb estar were still existent – this is because, in all of the sentences, events/states are inferred without any relation with a vertical position of the subject, as it was the case in Medieval Portuguese, as suggested by Moraes de Castilho (2005: 157). Therefore, it is reasonable to say that estar had its central semantics impoverished.

- (193) a. Maria está descansando no sofá. M. be.PRS rest.GER on-the sofa 'M. is resting on the couch.'
 - b. O cachorro **estava dormindo** tranquilamente. the dog be.PST sleep.GER calmly 'The dog was sleeping peacefully.'
 - c. Joana **está** deitada.
 - J. be.PRS laid.down

- 'J. is laid down.'
- d. Está tão quente que a garota **está** suando, mesmo sentada. be.PRS so hot that the girl be.PRS sweat.GER even sat 'It is so hot that the girl is sweating sitting down.'
- e. Ricardo **está** de cama.
 - R. be.PRS of bed
 - 'R. is in bed.'

Subcategorisation

Another characteristic of functional items concerns their selection of the category of their complement. The examples below show that auxiliary verbs necessarily select another verb (cf. (194)), regardless of its type (190). This pattern is different from the erstwhile lexical *estar* that could be intransitive and, optionally, with a circumstantial complement (cf. Mattos e Silva 1984: 448), that is, an adverbial complement (cf. Rocha Lima 1998), as I showed before, repeated here in (195).

- (194) a. João **está** chorando muito.
 - J. be.PRS cry.GER much
 - 'J. is crying too much.'
 - b. *João está [CP que chorando muito].
 - J. be.PRS that cry.GER much
 - c. * $Jo\tilde{a}o$ está $/_{CP}$ o bolo/.
 - J. be.PRS the cake
- (195) a. (...) e tanto perdera ja do sangue que nom podia ja estar.

(13th Century, Moraes de Castilho 2005: 196)

b. Senhor, quando os auogados razoaren ante uós, fazede-os star **en pee** e no consintades a elles que digan parauras torpes, nen uillas, senon aquellas que perteecen aos preytos

(Moraes de Castilho 2005: 153)

In addition to the restriction of being concatenated with a verb complement, the auxiliary estar exhibits a specific restriction regarding the type of verb with which it concatenates: Estar does not select any verb type, its morphosyntactic dependency specifies that the form of its VP complement must be a progressive verb (Lunguinho 2006: 460, Ferreira 2009: 177, Lunguinho 2011: 25, Resende & Araújo-Adriano 2019: 5). This is what the following contrast shows.

- (196) (Lunguinho 2006: 473)
 - a. A menina estava estudando.
 the girl be.PST.IPFV study.GER
 'The girl was studying'
 - b. *A menina estava estudada.
 the girl be.PST.IPFV study.PTCP.F

- c. *A menina estava estudado. the girl be.PST.IPFV study.PTCP.M
- d. *A menina estava **estudar**. the girl be.PST.IPFV study.INF

Active-Passive Interaction

When transforming the active into the passive voice, it is not expected that there will be a change in meaning in the context of an auxiliary verb since the DP subject, which is selected by the lexical verb in the active, continues to bear the same thematic role in the passive, since the auxiliary does not have this selection property as shown above. In (198), the DP bolos 'cakes' has a thematic role of THEME both in the active sentence (cf. (198-a)) and in the passive (cf. (198-b)). On the other hand, in the example (197), the DP a cozinheira 'the cook' has a role of THEME in the active voice (cf. (197-a)), differently from the passive form where it has an EXPERIENCER thematic role (cf. (197-b)). Such a contrast shows that there must be a cohesive unit between the auxiliary and the non-finite domain since the extraction of this unit would not be legitimate without changing the meaning (Gonçalves & Costa 2002: 28) and endorses the absence of subject selection by the auxiliary.

- (197) a. A Maria quer contratar [DP theme a cozinheira]. the M. want.PRS hire.INF the cook 'M. wants to hire a cook.'
 - b. $[DP]_{experiencer} A$ cozinheira] quer ser contratada pela Maria. the cook want.PRS be.INF hire.PTCP by-the M. 'The cook wants to be hired by M.'
- (198) a. A cozinheira está assando [DP theme bolos]. the cook be.PRS bake.GER cakes 'The cook is baking some cakes.'
 - b. [DP] theme Bolos estão sendo assados pela cozinheira. cakes be.PRS be.GER cook.PTCP.M.P by-the cook 'Some cakes are being baked by the cook.'

Syntactic Unity

Another property some authors find when they investigate auxiliary verbs regards the syntactic unit auxiliary and their non-finite verb form, creating a single unit between matrix and dependent clauses, where they become a monoclausal structure of the type [AUX+VP] (Gonçalves & Costa 2002: 20–1, Ledgeway 2017: 848). BP auxiliaries, estar included, do not necessarily exhibit this interlacing structure. Their looseness with their verb complement appears in the context of emphatic subjects, intervening negation, VP fronting, non-clitic climbing, and psycholinguistic grounds (Araújo-Adriano & Cyrino in progress).

Gonçalves & Costa (2002: 24) show that Portuguese auxiliary verbs and their verb complement have so much structural integrity that they only can have one single position for subject (e.g. O João tinha comprado o jornal 'John had bought the newspaper' /*O João tinha a Maria comprado o jornal 'lit. John had the Mary bought the newspaper' – (Gonçalves & Costa 2002: 24)). Regarding BP auxiliary constructions, however, Araújo-Adriano & Cyrino (in progress) show that an emphatic subject is possible in-between auxiliary and its verb complement (cf. also Trautwein 2013).

(199)olharum espelho comigo a. eu preciso pra si e verdentro eu mirror with=me inside I I need.PRS look.INF to CL and see.INF a um brinquedo analogico ou digital? quando voufalar: eita, é go.PRS talk.INF jeez be.PRS a analogical or digital when toy eu tocar sensivel ao eu vou verque eu sou I touch.inf I go.PRS see.INF that I be.PRS sensitive to-the touch and que eu **to** eu mesmo me tocando that I be.PRS I.myself me touch.GER 'I need to look inside myself and see a mirror with me inside. I will say: Is it an analogical or a digital toy? When I touch it, I will see that I am sensitive to touch and that I am touching myself.

(2022/21 - Twitter)

b. ele **tá** <u>ele mesmo</u> **caindo** dentro d'água. he be.PRS he.himself fall.GER inside the-water 'He is himself falling in the water'.

(Pires 2017: 141)

c. Olha. quando tem alguém puxando a folha para mim, até look.IMP when have.PRS someone pull.GER the leaf for prepondera olho fechado mesmo, que aí me dá prevail.PRS eye closed itself that there me give.PRS certain segurança, agora, quando eu **estou** eu mesmo **tirando** a folha, when safeness now I be.PRS I.myself take.GER the leaf assim.é olho aberto... então, as duas situações. like.this be.PRS eve open SO the two situations 'Look, when there's someone pulling the sheet for me, it even prevails with my eyes closed really, which gives me some security, now, when I'm taking the sheet, like, it's an open eye... So, the two situations'

(Adapted from da Silva 2016: 202)

d. Maria está ELA comendo o chocolate e não a Claudia. M. be.PRS she eat.GER the chocolate and not the C. 'lit. M. is her eating the chocolate, not C.'

(Trautwein 2013: 97)

Attributed to the same contiguity, an intervening negation between the auxiliary and the non-finite verb is not expected to be found (Gonçalves & Costa 2002: 29–32, Ledgeway 2017: 848). European Portuguese meets this property (Gonçalves & Costa 2002: 29–32). However,

I find data where a negation intervenes in Brazilian Portuguese analytic construction (Cyrino 2010a, Cyrino, 2010b, Araújo-Adriano & Cyrino in progress).

(200) a. minha conexão é discada e eu **estou** <u>não</u> **trabalhando** com meu my connection is dialed and I am not working with my servidor.

server

'My connection is dial-up and I am not working with my server.'

(Cyrino 2010b: 205-6)

b. *é* tanta informação nessa fazenda que eu **tô** <u>não</u> **entendendo** mais be so information in-this farm that I be not understand more nada nothing

'There is so much going on at this farm that I do not understand anything.' (2022/21 - Twitter)

Since non-finite lexical verbs are supposed to build a tight connection with the auxiliary, forming a single constituent, it is impossible to find VP fronting. This property is in the spirit that only constituents can undergo movement. In BP, however, the fronting only of the non-finite domain is found. For example, Araújo-Adriano (2021a) shows that fronting is possible either regarding the lexical verb's object or the entire non-finite domain (for infinitival VP-topicalisation, cf. Bastos 2001). This indicates, then, that the non-finite domain is not tightly tied to the auxiliary regarding the auxiliary, so much so that it can move independently.

- (201) a. Se o João disse que a casa 'tava pegando fogo, então... If the João say.PST that the house be.PST catch.GER fire, then...
 - (i) [pegando fogo] ela 'tava. [catching fire] it was.
 - (ii) *[fogo] ela 'tava pegando. [fire] it was catching
 - 'If J. said that the house was on fire, then (i) on fire it was/(ii) *fire it was on.'
 - b. Se a Maria disse que 'tava fazendo dieta, é porque...

 If the M. say.PST that be.PST do.GER diet, be.PRS 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 diet, then (i) doing a diet she was/(ii) diet she was doing.'

As mentioned before, analytic constructions are supposed to behave as a single locality domain in a monoclausal manner. Under this assumption, clitic climbing is obligatory in analytic constructions, where the object clitic, an internal argument of the non-finite lexical verb, to not intervene and break AUX-V contiguity, appears to the left of the auxiliary in a proclitic configuration (e.g. EP O João não me tinha (*me) visto 'J. not me=have(not) seen' Cyrino 2010a: 3). In BP, however, there is no clitic climbing to the auxiliary, as we can see in (202): The clitic is always in-between the auxiliary and the lexical verb, regardless of the presence of an attractor, viz. negation (202-a) or quantifier expressions (202-b) (cf. also Galves et al. 2005: 148–50, Cyrino 2010a: 18).

- (202) a. João não **está** <u>me</u> **falando** a verdade. J. no be.PRS CL tell.GER the truth 'J. is not telling me the truth.'
 - b. Como **estou** <u>me</u> **sentindo** mal, não vou trabalhar. as be.PRS CL feel.GER bad no go.PRS work.INF 'As I am not felling well, I will not work.'

In BP, this non-contiguity between auxiliary verbs and their verb complement also has psycholinguistic support. Investigating whether BP speakers process auxiliaries and the non-finite domain (AUX-V) as a single constituent, Araújo-Adriano (2021c) conducted a click monitoring experiment (Fodor & Bever 1965, Abrams & Bever 1969, Reber 1973, Cohen & Mehler 1996). Participants heard sentences with clicking sounds objectively placed in-between/amongst constituents; then, they were asked to identify in which position in the sentence they perceived the click. The general hypothesis of this test is that perceptual units resist interruption: "Noise heard during speech should tend to shift perceptually towards the boundaries of constituents. This shift should occur in such fashion as to minimise the number of constituents the noise is perceived as interrupting" (Fodor & Bever 1965: 416). 55 participants were presented with 67 sentences with auxiliary (203-a) and non-auxiliary verbs (203-b). After they listened to the sentence, they had to press on the keyboard the number corresponding to the place where the noise was perceived.

```
(203)
                                  (2) está (3) comendo uma (4) torta (5) na
             Minha (1) filha
         a.
             My
                    (1) daughter (2) is
                                          (3) eating
                                                            (4) pie
                                                       a
                                                                    (5) in the
              cozinha.
             kitchen
             'My daughter is eating a pie in the kitchen.'
             Essas (1) mães
                                (2) cozinham (3) ouvindo a (4) novela
             These (1) mothers (2) cook
                                              (3) listening the (4) soup-opera (5)
              todo dia
             every day
             'These moms cook listening to the soup-opera everyday'
```

If participants did not identify the in-between click AUX-V (position 3) above, this would suggest they process it as a single constituent; otherwise, if they noticed the interrupting sound, it would amount to saying they processed AUX-V as two separate chains. Table 4.8 reports the results.

The results from the psychological experiment suggest BP participants processed

Verb	Stimulus	Hits		Misses		p-value	
		\mathbf{N}	%	\mathbf{N}	%	Stim. = P3	Stim. = P5
Auxiliary Verbs	Stim. $= P1$	499	75.61	161	24.39	< 0.001	< 0.001
	Stim. $= P3$	331	50.15	329	49.85	-	< 0.001
	Stim. $= P5$	419	63.48	241	36.52	-	-
Non-auxiliary Verbs	Stim. $= P1$	131	79.39	34	20.61	0.004	0.001
	Stim. $= P3$	108	65.45	57	34.55	-	0.553
	Stim. $= P5$	103	62.42	62	37.68	-	-

Table 4.8: Comparison of stimuli by hits and misses for auxiliaries and non-auxiliaries (Adapted from Araújo-Adriano 2021c).

auxiliary and non-auxiliary constructions differently because they identified (scored) more clicks in position 3 of the latter, 65% against 50%. Considering that their mistakes also make us understand how these internal structures are processed, however, the comparison between hits and mistakes suggests that BP speakers do not really perceive AUX-V as a constituent: They scored the noise intervening AUX-V less than non-auxiliaries (50%), but they also perceived the noise in-between them 49% of the time. Together, the possibility of intervening emphatic subjects, negation, VP fronting, non-clitic climbing, and non-processing suggest that there is a syntactic gap in-between auxiliary and their non-finite lexical verb, where elements can be inserted, whether it be clicks, or structures (Araújo-Adriano & Cyrino in progress).

Word-Order

Another syntactic property of the auxiliary estar 'be' that will be addressed is word order. Much of the literature since the mid-1990s emphasises that auxiliary and lexical verbs behave differently (Emonds 1978, Pollock 1989, Cinque 1999). In English, this contrast is evidenced by fixed elements in the sentence: Lexical verbs follow negation and some adverbs, as I showed in Section 3.2, whereas auxiliary verbs precede them. The claim that lexical verbs do not move as high as auxiliary verbs would account for this contrast in English.

- (204) a. *John likes_i not t_i Mary.
 - b. John does not like Mary.
- (205) a. *I play_i always t_i with my kids.
 - b. I will always play with my kids.

In light of the above, it is reasonable to hypothesise that BP lexical and auxiliary verbs also behave differently regarding word order. To investigate that, some fixed elements were considered, and depending upon their position with respect to auxiliaries, one could argue whether they behave similarly to lexical verbs or not. I resorted to fixed and ordered adverbs with respect to the fixed and ordered position of auxiliaries. Thus, depending upon their order with respect to auxiliaries, I could compare their placement with those

of lexical verbs, demonstrated in Section 3.2. Up to now, several studies have indicated that functional verbs are universally ordered (Tenny 1987: 204, Cinque 1999: 57, Harwood 2013: 31–3). The contrast presented in (206)–(208) reflects this fixed order in (209).

- (206) (Pontes 1973: 46)
 - a. deve ter estado sendo comprado. must have.INF be.PTCP be.GER buy.PART 'must have been being bought'
 - b. *tem devido comprar have.PRS must.PTCP buy.INF
 - c. *está devendo comprar be.PRS must.GER buy.INF
 - d. *está tendo comprado be.PRS have.GER buy.PTCP
 - e. *tem devido estar comprando have.PRS must.PTCP be.INF buy.GER
- (207) a. Aquela casa deve ter sido pintada várias vezes. that house must.PRS have.INF be.PTCP paint.PTCP several times 'That house must have been painted several times.'

(Azevedo 2004: 122)

- b. ${}^*Aquela\ casa\ deve\ ter\ pintada\ sido\ ...$ that house must.PRS have.INF paint.PTCP be.PTCP
- (208) a. Esse assunto deve ter estado sendo debatido na this subject must.PRS have.INF be.PTCP be.GER debate.PTCP in-the imprensa com alguma frequência.

 press with some frequency

 'That subject must have been being debated in the press with some frequency.' (Azevedo 2004: 122)
 - b. *Esse assunto ter deve estado sendo debatido...
 this subject have.INF must.PRS be.PTCP be.GER debate.PTCP
- (209) tense > modality > perfect aspect > progressive aspect > voice > verb (Harwood 2013: 33, Harwood 2014: 298, Harwood 2015: n.p.)

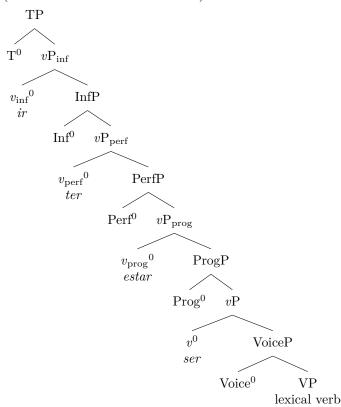
Although the fixed order of auxiliaries above is well recognised in the literature, whether those verbs are directly inserted in the TAM field or a lower position, moving later to the TAM field, is under debate. Some authors claim that auxiliaries are inserted in the TAM field, given that they do not contribute to the assignment of thematic roles (cf. Roberts 1992a: 226, Cinque 1999: 58, 188 – Note 16, Roberts & Roussou 2003: 45), a property that we saw regarding estar. For others, the same generalisation is accounted for if auxiliary verbs are inserted outside the argument/thematic field, that is, if they were inserted outside VP and even vP (cf. D'Alessandro & Roberts 2008: 481, D'Alessandro & Ledgeway 2010: 336, Biberauer & Roberts 2012: 275 – Note 5, 278, Harwood 2013: 33–4, Araújo-Adriano 2019b: 74–5). For Cyrino & Matos (2005), auxiliary verbs are not

inserted in the TAM field for reasons which have to do with the recovery of the VP ellipsis. They claim that auxiliaries are merged in a lower position, and then their movement is required because movement is responsible for leaving a copy of the auxiliary in its base-merged position, which guarantees the parallelism between the local identifier of the elliptical constituent and the antecedent. In this sense, the "parallelism requirement for the local identifier of the elliptical vP", they claim, is only recovered if auxiliary (and lexical verbs) are merged initially in a lower position, raising "to the required sentence functional projections."

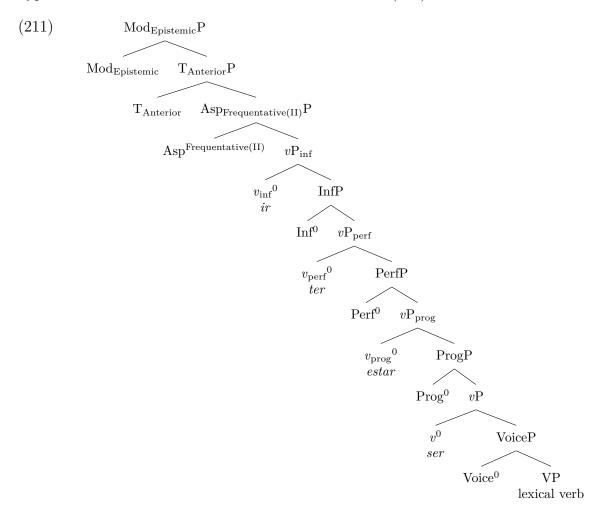
In the vein of Schifano (2018: 136), I will show that auxiliaries must move to disambiguate their syncretic behaviour shown in Section 4.1. Hence, the second assumption that auxiliaries are not directly merged into the TAM field but in a lower position seems more reasonable (for more arguments for the raising of auxiliaries, cf. Ross 1969, Cyrino & Matos 2005, Harwood 2013, 2014, 2015).

One way to formalise the fixed order of auxiliaries (209), which I adopt, is to claim that auxiliaries head their own vP shell and select a unique non-finite verbal phrase as their complement above VP, as put forward by Harwood (2013: 70–1). 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 sketched in (210). The intuition is that auxiliaries bear an inflectional feature [uInfl/T: α], where α can be valued as Inf, Perf, or Prog. This uninterpretable feature is only deleted when auxiliaries are merged with the complement that shares the same [i] value: Prog⁰ [iInfl:Prog], Perf⁰ [iInfl:Perf], and Inf⁰ [iInfl:Inf].

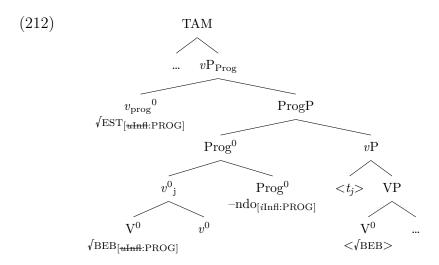
(210) (Based on Harwood 2013: 69)



Elaborating on this assumption, I hypothesise that Cinque's (1999) Universal Hierarchy is above $vP_{\rm inf}$. Hence, TP in (210) is actually split. Under such circumstances, the hypothesis is that there is the articulated structure in (211).



Regarding auxiliaries, I adopted Harwood's (2015) hypothesis that they bear from Numeration [uInfl: α] inflected, uninterpretable, but valued features, where α is a inflectional value: [uInfl: PERFECTIVE], [uInfl: INFINITIVE], [uInfl: PROGRESSIVE]. For instance, in (212), $\sqrt{\text{BEB}}$ (from the root beber 'drink'), after moving to vP, has to move to Prog^0 in order to delete its uninterpretable [uInfl: PROGRESSIVE] feature (the feature deletion is signalled as -). Once merged with Prog^0 , the lexical verb will be realised in its progressive form, bebendo 'drinking'. When $\sqrt{\text{EST}}$ (from the root estar 'be') is merged with Prog^0 , its [uInfl: PROGRESSIVE] feature is deleted.



Hence, to verify the order of auxiliaries in the structure, one must consider their position with respect to the rigid and ordered adverbs in (121), repeated below in (213). An adverb postpositioned to the auxiliary will amount to saying that, from its base-merged position, the auxiliary moved (at least) to the following Functional Projection, for the sake of generating the Aux_ADV order. By contrast, if the auxiliary is found to the right of the adverb (viz. ADV_Aux), being ungrammatical in the order where the former precedes the latter, I will admit there is a lower instance of movement or none. It is worth remembering that the (un)grammaticality of sentences regarding the position of the verb with respect to adverbs was based on the judgments of native speakers who were presented with sentences in different orders.

(213) The Universal Hierarchy of Functional Projections of the IP – Brazilian Portuguese version (Tescari Neto 2019: 3567)

 $\begin{aligned} \textbf{HIGH:} & [francamente\ Mood_{SpeechAct}>[surpreendemente\ Mood_{Mirative}>[felizmente\ Mood_{Evaluative}>[evidentemente\ Mood_{Evidential}>[provavelmente\ Mod_{Epistemic}>[uma\ vez\ T_{Past}>[então\ T_{Future}>[talvez\ Mood_{Irrealis}>[necessariamente\ Mod_{Necessity}>[possivelmente\ Mod_{possibility}>[normalmente\ Asp_{Habitual}>[finalmente\ Asp_{Delayed}>[tendentialmente\ Asp_{Predispositional}>[novamente\ Asp_{Repetitive(I)}>[frequentemente\ Asp_{Frequentative(I)}>[de/com\ gosto\ Mod_{Volition}>[rapidamente\ Asp_{Celerative(I)}>[] \end{aligned}$

 $\begin{array}{l} \textbf{LOW:} \ [\text{j\'a} \ T_{\text{Anterior}} > [\text{n\~ao...mais Asp}_{\text{Terminative}} > [\text{ainda Asp}_{\text{Continuative}} > [\text{sempre Asp}_{\text{Perfect}} > [\text{apenas Asp}_{\text{Retrospective}} > [(\text{dentro}) \ \text{em breve Asp}_{\text{Proximative}} > [\text{brevemente Asp}_{\text{Durative}} > [(?) \ \text{Asp}_{\text{Generic/Progressive}} > [\text{quase Asp}_{\text{Prospective}} > [\text{repentinamente Asp}_{\text{Inceptive}} > [\text{obligatoriamente Mod}_{\text{Obligation}} > [\grave{a} \ \text{toa Asp}_{\text{Frustrative}} > [(?) \ \text{Asp}_{\text{Connative}} > [\text{completamente Asp}_{\text{SgCompletive}(I)} > [\text{tudo Asp}_{\text{PlCompletive}} > [\text{bem Voice} > [\text{cedo Asp}_{\text{Celerative}(II)} > [\text{do nada Asp}_{\text{Inceptive}(II)} > [\text{de novo Asp}_{\text{Repetitive}(II)} > [\text{frequentemente Asp}_{\text{Frequentative}(II)} > ... \\ \end{array}$

Starting from low adverbs, we see that *estar* + gerund, not *estar* alone, must leave their base-merged position, given that they must precede *frequentemente* 'frequently' (214-a), *de novo* 'again' (214-b), *cedo* 'early' (214-c), and *bem* 'well' (214-d).

(214)João (*frequentemente) está (*frequentemente) cozinhando cook.GER be.PRS frequentemente.

frequently

'J. has been cooking frequentely.'

- A Maria (*de novo) está b. (*de novo) chorando de novo. the M. be.PRS cry.GER again 'M. is crying again.'
- Nós (*cedo) estamos (*cedo) viajando be.PRS travel.GER early 'We are travelling early.'
- Meus funcionários (***bem**) estão (*bem) trabalhando bem. employees be.PRS work.GER 'My employees are working well.'

Higher adverbs such as tudo 'everything' and completamente 'completely' necessarily have to be in a postverbal position, as shown in (215).

- (215)Estou feliz porque o novo presidente (*tudo) está (*tudo)be.PRS happy because the new president be.PRS tudo.mudandochange.GER everything
 - 'I am happy because the new president has been changing everything.'
 - Eu (*completamente) estou me (*completamente) arrependendo be.PRS me regret.GER completamente do que eu fiz. of-the what I do.PST completely 'I am completely regretting what I did.'

As for the next adverb à toa 'in vain', it invariably follows not only the estar but the gerund.

(216)Você (*à toa) está(*à toa) chorando à toa: Eu nem te ainda. be.PRS cry.ger in vain I even you hit.PST yet 'You are crying in vain: I haven't even hit you yet.'

Considering now the following adverb, obrigatoriamente 'obligatorily', we see that this adverb in a pre-verbal position solely has a reading of necessarily (217-a), not semantically associated with obligation. When intervening in-between estar 'be' and the gerund, the sentence is possible, as well as when the adverb follows it (218). This pattern is in line with the idea that lexical verbs in BP move only as high as obrigatoriamente (Tescari Neto 2019: 3570). Alternatively, analysing the adverbial use of obrigado 'obliged', meaning in an obliged manner, semantically associated to obrigatoriamente, we see that it invariably follows the non-finite verb (219), which might suggest that the non-finite verb should move higher than this adverb.

- (217)O João não **obrigatoriamente** está dandosintaxe neste not necessarily be.PRS give.GER syntax in-this semestre (, ele pode estardandooutras disciplinas, ou semester he can.PRS be.INF give.GER other courses nenhuma). none 'J. not necessarily has been teaching syntax this semester (he might be teaching something else, or nothing).
- (218) O presidente não (obrigatoriamente) está (*obrigatoriamente) the president not obligatorily be.PRS

 cuidando (obrigatoriamente) do país.

 take.GER.care obligatorily of-the country

 'The president is not obligatorily taking care of the country.'
- (219) a. $t\hat{o}$ comendo **obrigado** pq a vontade de vomitar \acute{e} be.PRS eat.GER obliged because the wish of vomit be.PRS enorme.

 huge
 'I'm eating obliged because the urge to vomit is huge.'

 (2022/21 Twitter)

 b. Eu (*obrigado) $t\hat{o}$ (*obrigado) comendo (obrigado).

 I be.PRS eat.GER obligated

Whether it moves higher than obrigatoriamente/obrigado or not, the position of the gerund becomes more precise given its limitation to the right of quase 'almost'. The following example shows that this adverb precedes the gerund; however, we observe a different behaviour when looking more closely at the matrix verb. The difference is that estar 'be' may precede or follow quase 'almost' (220-a)–(220-b). Under this respect, inspired by Garzonio & Poletto (2014) in the case of the Italian quasi 'almost', Tescari Neto (2013: 136) and Tescari Neto & Forero Pataquiva (2020: 506) argue that BP quase 'almost' is dislocated to the left periphery (signalled by DLP), thus the preverbal position. Hence, since the position of the non-finite domain is not in the scope of this dissertation, I will assume from now on that the gerund complement of estar 'be' must obligatorily precede obrigatoriamente 'obligatorily', even though there is more to be investigated on the position of the non-finite verb in BP.

- (220) a. $Eu\ (^{DLP}\mathbf{quase})\ estou\ (\mathbf{quase})\ ligando\ (*\mathbf{quase})\ para\ a\ polícia$ I almost be.PRS almost call.GER to the police $(*\mathbf{quase})$.
 - 'I am almost calling the police.'
 - b. Maria (^{DLP} quase) está (quase) terminando (*quase) a prova M. almost be.PRS almost finish.GER the test

(*quase).

'M. is almost finishing her test.'

At first sight,⁷³ estar 'be' can precede and also follow the adverb sempre 'always'; a pattern that cannot be found, however, is the postposition of sempre 'always' with respect to the gerund in the temporal/aspectual interpretation. This order would only be acceptable with the focused/marked reading. It is noteworthy that sempre 'always' in BP can trigger two main interpretations: Temporal/aspectual and pattern of behaviour (Tescari Neto 2013: § Appendix 2, Araújo-Adriano 2022: 6–9). The movement to the left of sempre 'always' is clearly evidenced when two sempre 'always' are in the sentence: $sempre_1$ = temporal/aspectual reading and $sempre_2$ = pattern of behaviour reading. As I will show in the following, the movement over sempre 'always' is supported when we observe higher adverbs. In this way, auxiliary passing over sempre 'always' and higher adverbs differs drastically from lexical verbs, as I showed in Section 3.2.

- (221) a. Amo que a minha mãe (#sempre) tá (sempre) me love.PRS that the my mom be.PRS always me defendendo, quando meu pai briga comigo defende.GER when my father fight with-me 'I love that my mom always defends me when my dad fights with me.'
 - É b. fácil saber passando jogo: meu vizinho se está be.PRS easy know.INF if be.PRS pass.GER game my neighboor (#sempre) tá (sempre) berrando (sempre) toda vez que be.PRS always shout.GER always whenever that temjogo do Vascohave.PRS game of-the V. 'It is easy to know if some game is on: My neighbor is always shouting whenever V. is playing.
 - c. Uma vez que a Maria precisa ficar em repouso, o João one time that the M. need.PRS stay.INF in rest the J. (#sempre) tá (sempre) levando (sempre) comida para ela be.PRS always take.GER always food to her

na cama on-the bed

'Since M. needs to rest, J. is always taking her some food in bed.'

d. Mano sou muito intenso com todo mundo q eu amo!!!!! to bro be.PRS very intense with everybody that I love.PRS be.PRS sempre querendo sempre ajudar, tá ali com a pessoa. always want.GER often help.INF be.PRS there with the person

 $^{^{73}}$ Maybe this apparent acceptability lies in the fact that BP has two interpretations for sempre 'always', which might affect speakers' judgment with respect to the apparent postposition of sempre 'always' to the finite lexical verb. An experiment should be conducted to deepen our understanding.

 \acute{E} foda. be.PRS suck

'Bro, I am very intense with everybody I love! I always want to frequently help, be there with the person. It sucks.'

(2020/21 – Twitter) (cf. ... Estou sempre₁ querendo sempre₂ ajudar... '... I am always wanting to often help...')

As for ainda 'still', even though the data in (222) might suggest an optional movement of the auxiliary, this view is misled. We see that auxiliaries are obligatorily found to the left of this adverb: Contrary to English, sentential $n\tilde{a}o$ 'not' is always in a preverbal position in BP, even in a structure with auxiliaries. Then, the data in (223) suggest estar 'be' must pass over ainda 'still'. The preverbal position of ainda 'still' might be accounted for by some dislocation to the left periphery (as suggested by Andriani 2016: 240, in the case of the dialect Italian ancora 'still'), not as an optional movement of the auxiliary.

- (222) O Pedro (DLP ainda) está (*ainda) usando (#/?ainda) aparelho. the P. still be.PRS still use.GER still braces 'P. is still wearing braces.'
- (223) a. *José não **ainda** está brincando no parquinho.
 - J. not still be.PRS play.GER in-the playground
 - b. José não está **ainda** brincando no parquinho.
 - J. not be.PRS still play.GER in-the playground
 - 'J. is not still playing in the playground.'
 - c. *José não está brincando **ainda** no parquinho.
 - J. not be.PRS play.GER still in-the playground
 - 'J. is not still playing in the playground'.
 - d. José não está brincando no parquinho **AINDA**.
 - J. not be.PRS play.GER in-the playground still
 - 'J. is not playing in the playground yet'.

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'. ⁷⁴The example

⁷⁴I thank Adam Ledgeway for pointing this argument out to me.

below $(224)^{75}$ shows that in fact ainda is left dislocated.⁷⁶

(224) Ainda ninguém está passando mal por enquanto, mas fizeram isso na still nobody be.PRS fell.GER bad by while but do.PST this in-the maldade.

evil

'No one is feeling sick yet, but they were up to mischief.'⁷⁷

Tescari Neto (2013: 48) comes to the same conclusion regarding the default position of auxiliary ter 'have' and ainda 'still'. He shows that ter 'have' must be to the right of this adverb, and also claims that the postverbal position to the participle generates a marked sentence, as shown by (244). Thus, given the Head Movement Constraint (Travis 1984), if estar moves to the left of ainda 'still', it must not only pass over sempre 'always', and every adverb c-commanded by ainda 'still', but also precede them.

The placement of $n\tilde{a}o$... mais 'no longer', the following adverb, also shows that the auxiliary must pass over it (225-a)–(225-b).

- (225) a. *O bebê não **mais** está chorando. the baby no longer be.PRS cry.GER
 - b. O bebê não está **mais** chorando. the baby no be.PRS longer cry.GER 'The baby is no longer crying.'

 $^{76}\mathrm{See}$ also

(i) Nocomeço, ainda ninguém tinha tentado elaborar uma versão falada nobody have.PST.IPFV try.PTCP elaborate.INF a version oral in-the beginning still para essa questão dos novos pronomes this issue of-the new pronouns '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/) 77https://www.reclameaqui.com.br/burger-king/que-bebida-e-essa_EpeVUiu6bxaZ4qCR/

⁷⁵The whole excerpt: Me serviram uma bebida totalmente desconhecida!!! Uma mistura esquisita de suco de fruta, mas era doce, e tinha cheiro de pêssego. A cor parecia escura como a Pepsi mas parecia como se fosse café!! Tenho as fotos. O que vocês me serviram afinal? Querem matar a gente? Além de conferir os lanches, agora a gente precisa conferir até as bebidas? E infelizmente por ter tampa, eu não vi e chequei a beber, além de outras pessoas de casa, para saber exatamente o que era, se era suco de uva ou não, enfim era coloração escura como a da Pepsi. Eu tinha solicitado duas Pepsi Black, e uma estava ok. A outra Pepsi, que estava com esse problema. Ainda ninguém está passando mal por enquanto, mas fizeram isso na maldade, só pode ser e quero que alquém se pronuncie a respeito. I was served a totally unknown drink!!! An odd mix of fruit juice, but it was sweet, and it smelled of peaches. The color looked dark like Pepsi but looked like it was coffee!! I have the photos. What did you serve me anyway? Do you want to kill us? In addition to checking out the snacks, now do we even need to check out the drinks? And unfortunately because it had a lid, I didn't see it and I drank it. Other people at home also tried it to know exactly what it was, if it was grape juice or not, in short, it was dark in color like Pepsi. I had ordered two Pepsi Black, and one was ok. The other Pepsi was the one which had this problem. No one is feeling sick yet, but they were up to mischief, it can only be that, and I want someone to comment on it.'

An interesting pattern arises: Although the gerund must not move further than obrigatoriamente 'obligatorily', this no-finite verb can optionally precede $n\tilde{a}o$... mais 'no longer'. Contrary to what was shown before, the movement of the gerund is optional in this case: It might precede not only (226-a) but also follow mais 'longer' (226-b).

- (226) a. *O bebê não está chorando mais* the baby no be.PRS cry.GER longer
 - b. *Maria está falando não mais com o Pedro.
 M. be.PRS speak.GER no longer with the P.

Either way, whether following or preceding the gerund, this adverb must follow the auxiliary estar. Finally, the last adverb in the region of the lower adverb space limits the movement of auxiliaries. This is shown in (227), where the only position available for the auxiliary estar is following $j\acute{a}$ 'already'. As noted by Tescari Neto (2013: 48), the post-position of $j\acute{a}$ 'already' is marginal, better accepted with a focus mark when the adverb is even following the object (on the position of $j\acute{a}$ following the verb as ungrammatical, cf. also Modesto 2000: 27).

To be placed in a position that follows $j\acute{a}$ 'already' and precedes every lower adverb, I conclude that estar 'be' must end up in $T_{(Anterior)}$ head, and its lexical non-finite verb sandwiched between quase 'almost' (220) and obrigatoriamente (218):

(228) [já T_(Anterior) estar [quase Asp_{Prospective} gerund [obrigatoriamente Mod_{Obligation}

4.2.1 Some Properties of Other Analytic Constructions

As I mentioned in the Introduction and in Chapter 2, albeit the focus of this dissertation is the analytic and synthetic present Tense, I decided to include data on other analytic constructions to check if the analyticisation process I attested in this dissertation is restricted to the present Tense or if it is a more general pattern in BP. Despite exhibiting some prototypical properties of auxiliaries, viz. semantic bleaching, absence of argument selection, unavailability for nominalisations, categorical selection, maintenance of thematic roles attributed in active-passive, the auxiliary estar does not behave as other ordinary auxiliaries because it seems not to form a syntactic unit with its lexical non-finite verb, as in-between elements were observed above. Since most of the BP verb paradigm might have undergone analyticisation evolving auxiliaries ir, and ter (cf. Section 4.1), in this section I briefly discuss some of the other analytic constructions properties.

The auxiliaries *ir* and *ter* exhibit the prototypical properties of auxiliaries: They have lost their lexical content (Lobato 1975: 30–31, Araújo-Adriano 2021b), do not select their arguments (Lunguinho 2011: 36–37, Resende & Araújo-Adriano 2019: 7–8), sub-categorise their complement (Lunguinho 2006: 460, Ferreira 2009, Resende & Araújo-Adriano 2019:

5), to cite a few. Akin to *estar*, they, however, do not exhibit syntactic unity with their verb complement.

Combined with the psycholinguistic experiment results reported in Table 4.8, which attest to the fact that BP speakers do not process AUX-V as a single constituent, Araújo-Adriano & Cyrino (in progress) show that ir 'go' and ter 'have' in auxiliary constructions also display intervening emphatic subjects (e.g. Eu jamais imaginei o que eu tinha eu feito 'lit. I never thought what I had I done'/já que Deus não fez nada eu vou eu escolher 'lit. since God didn't do anything, I will I choose.', cf. also Cyrino, 2010a, 2010b), intervening negation (e.g. agora vou não ver a tv digital aberta 'lit. now I will not see the digital open TV' Cyrino 2010b: 205/eu posso almoçar mais tarde, tenho não feito as refeições estes dias 'lit. I can have lunch later, I have not had meals these days').

These data suggest that, as well as in estar, there might be a syntactic gap between ir, ter, and their non-finite verbs; that is, they do not form a single unit with their verb complement. So much so that we observe the same pattern I found in the last chapter: They must together leave vP, move to some Aspectual position and then, the auxiliary moves alone to the $T_{\rm Anterior}$, leaving its non-finite domain behind, creating a gap. In the following, I demonstrate this pattern with some key adverbs that indicate the position of BP auxiliaries, accounting for the non-syntactic unity they display with their verb complement.

Regarding the position of very low adverbs such as bem 'well' (229-a), tudo 'everything' (229-b), completamente 'completely' (229-c), and $em\ v\tilde{a}o$ 'in vain' (229-d), the following data suggest ir 'will' must precede them all.

- (229) a. Fernando (*bem) vai (*bem) trabalhar bem.
 F. go.PRS work.INF well
 'F. will work well.'
 - b. A faxineira (*tudo) vai (*tudo) limpar tudo até o the cleaner go.PRS clean.INF everything until the meio dia.
 half day

'The cleaner will clean everything until noon.'

c. Os pedreiros (*completamente) vão (*completamente)
the bricklayers go.PRS
finalizar completamente a obra completamente.
finish.INF completely the work completely

'The bricklayers will finish the building completely.'

d. Eu (*à toa) vou (*à toa) correr (à toa).

I go.PRS run.INF in vain
'I will run in vain.'

When it comes to higher adverbs, such as *sempre* 'always', we also observe *ir* 'go' preceding it (230-a). As discussed for *estar* 'be', the position of *ir* 'go' as concerns *sempre* 'always' is not crystal clear, at least at first sight.

- (230) a. eu posso estar todo destruído, machucado, mas mesmo assim I can.PRS be.INF all destroyed hurt but even though vou sempre estar aqui, cuidando de você.

 go.PRS always be.INF here care.GER of you 'I may be completely destroyed, hurt, but even then I will always be here, taking care of you.'
 - (2021/21 Twitter) (cf. #... mesmo assim sempre vou estar aqui... '... even though (I) always will be here...')
 - b. Aconteça o que acontecer vou **sempre** te amar filho, happen.SBJV the what happen.INF go.PRS always CL love.INF son do jeito que você é. of-the way that you be.PRS
 'No matter what happens, I will always love you, son, just the way you are.'
 (2021/21 Twitter) (cf. #Aconteça o que acontecer, sempre vou te amar,
 - c. Vou sempre lutar por ti, até ao fim.
 go.PRS always fight.INF for you until the end
 'I will always fight for you, until the end.'
 (2021/21 Twitter) (cf. #Sempre vou lutar por ti... 'Always I will fight for you...')

filho... 'happen what happens, I always will love you, son...')

muito mau, mas vou

I can.PRS be.INF very bad but go.PRS always pass.INF the impressão que tô tranquilo. impression that be.PRS calm 'I could be feeling very bad, but I will always give the impression I am fine.' (20YY/21 – Twitter) (cf. # Eu posso estar muito mal, mas sempre vou passar a impressão que estou tranquilo 'I could be very bad, but always will pass the impression that be calm')

sempre passar

In all cases above (230), sempre 'always' does not convey a pattern of behaviour since there is quantification over the event. For instance, in (230-c), in every instance where the speaker is feeling bad, they will seem to be calm; this quantification is typical of temporal/aspectual interpretation, not of frequentative sempre 'frequently'. Though rare, both readings of sempre are clearer when they co-occur in the same sentence. Tescari Neto (2013: 196) shows their co-existence in a sentence where the higher sempre 'always' conveys temporal/aspectual interpretation (marked as 1) and the one lower pattern of behaviour (marked as 2), manifest even in his gloss.

(231) Eu sempre₁ encaro sempre₂ ele. I always stare.PRS regularly him 'I always stare at him regularly.'

d.

Eu posso

tá

(Tescari Neto 2013: 196)

Further evidence for the passing of ir 'go' over temporal/aspectual sempre 'always'

comes from the following Twitter data. Below, we see the co-occurrence of both *sempre* 'always', where the higher triggers a temporal/aspectual interpretation, whilst the lower one is frequentative.

- (232) a. Eu te amo muito, muito, muito, vou sempre₁ tentar sempre₂
 I CL love.PRS much much much go.PRS always try.INF always
 te dar um dia bom...
 you give.INF a day good
 'I love you so much, I'll always try to often give you a pleasant day.'
 (2018/21 Twitter) (cf. ... vou sempre₁ tentar sempre₂ te dar um dia
 bom... '... will always try to often give you a day good...')
 - sempre₁ tentar sempre₂ pregar b. Eu em 2016: vou me in 2016 go.PRS always try.INF often preach.INF the peace compreensão, com muita calma e carinho. Eu hoje: amor elove and understanding with much calm and affection me today que todo mundo vá sewant.PRS that every body go.sbjv cl.3sg fuck.inf 'In 2016 I was like: I will always try to often preach peace, love and understanding, with much calm and affection. Me today: I want everybody to go fuck themselves.' (2019/21 – Twitter) (cf. ... vou sempre₁ tentar sempre₂... '... will always try

With respect to ainda 'still', the following data show that ir 'go' must pass over it, given the post-verbal position of the adverb in relation to the auxiliary. As can be noticed in (233-a), the second ainda 'still' appearing in the sentence was used pre-verbally in the sentence data, despite the post-verbal position of the first occurrence of the adverb, which might have been generated by left dislocation, as I argued in the case of (222).

often...')

(233)Se eu aceitar os 2 mil daminha mãe eu vou aindaa. if I accept.INF the 2 thousand of-the my mom I go.PRS still qastartoda as minhas economias pra realizar have.INF that spend.INF all the my savings to realise.INF my ouvindosonho e ainda vou ficar terdream and still go.PRS have.INF that stay.INF listen.GER the chantagens de sempre ainda mais. blackmail of always still more 'If I accepted the two thousand from my mom, I would still have to spend all my savings to fulfill my dream and I would still have to listen to the same blackmailing more than usual.

(20YY/21 - Twitter)

b. Se eu continuar assim, vou **ainda** me ferrar mto(=muito) em if I continue.INF so go.PRS still me screw.INF much in

história.

history

'If I keep this up, I am going to still be screwed up in History.'

(2021/21 - Twitter)

c. Vou **ainda** essa semana assistir os 2 primeiros filmes do John go.PRS still this week watch.INF the 2 first films of-the J. Wick da minha lista da prime video.

W. of-the my list of-the prime video

'I am still going to watch this week the 2 first J. W. movies from my prime video list.'

(20YY/21 - Twitter)

Since the position of ainda 'still' to the right of ir 'go' when there is a sentential negator $n\tilde{a}o$ 'not' is mandatory (234), alongside the mandatory postverbal position of a higher adverb – $n\tilde{a}o$ mais 'no longer' (235) –, its is reasonable to think that this preverbal position might be related to some dislocation to the left periphery, as I suggested previously, or to some stylistic ordering.

(234)Por isso que, segundo 0 governo. não vai ainda entrar emfor this what according the government not go.PRS still enter.INF in vigor a fase laranja, porque... effect the orange phase because 'That is why, according to the government, the orange phase will no longer begin, because...'⁷⁸ (cf. ... não ainda vai entrar em vigor a fase laranja... '... no longer will begin the orange phase...

Finally, as concerns the highest adverbs in the lower adverbial space – $n\tilde{a}o$ mais 'no longer' and $j\tilde{a}$ 'already' – the following examples bear witness to the auxiliary verb passing over the former $(235)^{79}$, but not over the latter $(236)^{80}$.

(235) a. O Mario não vai **mais** tirar o aparelho porque os the M. not go.PRS more take=out.INF the braces because the dentes dele não estão retinhos.

teeth of=his not be.PRS straight

'M. is no longer taking out his braces, because his teeth are not straight.'

b. *O Mario não **mais** vai tirar o aparelho... the M. not more go.PRS take=out.INF the braces

c. *O Mario vai não **mais** tirar o aparelho... the M. go not more take=out the braces

 $^{^{78} \}texttt{https://diariodotransporte.com.br/2021/04/16/gestao-doria-fase-no-plano-sao-paulo-de-quarentena/sao-paulo-de-quarena/sao-paulo-de-quarentena$

⁷⁹According to my informants, when *mais* follows the verbal complex, it becomes marked.

 $^{^{80}}$ My informants accepted the precedence of $j\acute{a}$ with respect to the auxiliary as the only natural position. Although other positions were accepted, they were considered marked.

(236) O Mario (já) vai (*já) fazer (*já) 18 anos. the M. already go.PRS already do.INF already 18 years 'M. will already turn 18 years old.'

I conclude that the auxiliary ir 'go' selecting an infinitive must move to $T_{(Anterior)}$, but no higher, since it must be found fronted to every lower adverb, but $j\acute{a}$ 'already', in Spec, $T_{(Anterior)}$ P.

Turning our attention to ter 'have', we can also see that this auxiliary as well as the participle leaves its first-merged position, considering their position with respect to very low adverbs, viz. frequentemente 'frequently', de novo 'again', cedo 'early', and bem 'well', as shown below.

- (237) a. João (*frequentemente) tem (*frequentemente) cozinhado
 J. have.PRS cook.PTCP

 (frequentemente.)
 frequently
 'J. has frequently cooked.'
 - b. Depois de várias tentativas, o policial (*de novo) tinha after of many tries the police-man have.PST.IPFV (*de novo) errado (de novo).

 err.PTCP again

'After many tries, the police man had once again made a mistake.'

- c. Nós (*cedo) temos (*cedo) acordado (cedo) we have.PRS wake.PTCP-up early 'We have been waking up early.'
- d. Meus funcionários (*bem) têm (*bem) trabalhado (bem).

 my employees have been working well.'

As for the next adverb, our judgment in (238) that à toa 'in vain' obligatorily follows the participle differs from Tescari Neto's (2019: 3571): The author claims that the inbetween interposition of the adverb ter 'have' and the participle is allowed (cf. (239-a)). However, beyond this divergence in judgments, if the synthetic form terá 'will have' of ter 'have', from the author's example is converted to the analytic vai ter 'lit. go.PRS have', one observes that, either way, à toa 'in vain' is necessarily found to the right of the participle (and consequently to the right of infinitive; a pattern attested even in Tescari Neto (2019: 3572) (e.g. (*à toa) fazer (à toa) seu trabalho, João odeia / '(in vain) to do.INF (in vain) his job, J. hates').

(238) Eu (*à toa) tinha (*à toa) me irritado (à toa).

I have.PST me irritate.PTCP in vain
'I have been irritating myself in vain.'

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(239) (Adapted from Tescari Neto 2019: 3571)
```

- a. João terá (em vão) feito (em vão) o trabalho.
 - J. have.Fut in vain do.PTCP in vain the job
 - 'J. will have done the job in vain.'
- b. $Jo\tilde{a}o\ vai\ (*em\ v\tilde{a}o/*\dot{a}\ toa)\ ter\ (*em\ v\tilde{a}o/*\dot{a}\ toa)\ feito\ (em\ J.\ go.PRS\ have.INF\ do.PTCP\ in\ v\tilde{a}o/\dot{a}\ toa)\ o\ trabalho.$

 $v\tilde{a}o/\hat{a}$ toa) o trabalho. vain/for nothing the job

'J. will have done the job in vain.'

The order with respect to repentinamente 'abruptly' (240) suggests that the whole complex ter-participle must be to its left, revealing obligatory movement to a position between Asp_{Prospective} and Asp_{Inceptive(I)}.

(240) Segundo o relatório da polícia, o criminoso (*repentinamente) according the report of-the police the criminal teria (*repentinamente) fugido repentinamente.

have.Fut.pst escape.ptcp suddenly 'According to the police report, the criminal had suddenly escaped.'

Tescari Neto & Forero Pataquiva (2020: 502) note that another adverb semantically associated to $\operatorname{Asp_{Inceptive}(I)}$ is de repente 'suddenly'. According to the authors, such adverb triggers another reading, beyond Inceptive, viz . Mood_{Irrealis}, associated to talvez 'perhaps' (e.g. De repente/talvez a Maria consegue passar na faculdade 'Perhaps, M. could be accepted to university'). Suppose the present judgment on the placement of ter -participle is on the right track. In that case, since $\operatorname{Mod}_{\operatorname{Irrealis}}$ c-commands all low adverbs (cf. (121)) and the verb in BP does not move higher than $\operatorname{Mod}_{\operatorname{Irrealis}}$ (cf. the position in relation to the adverb $\operatorname{j\acute{a}}$ 'already' in (246) and (236)), one expects that the reading triggered when de repente 'suddenly' precedes ter 'have' is that of $\operatorname{irrealis}$: The data in (241) suggest precisely that. This is also evidenced by de repente 'suddenly' licensing a subjunctive form in that preverbal position ((241-b)-(241-c)).

- (241) a. ..., de repente o criminoso teria fugido.
 - ..., of sudden the criminal have.FUT.PST escape.PTCP
 - "... Perhaps/Maybe the criminal had escaped."
 - b. ..., de repente o criminoso tenha fugido.
 - ..., of sudden the criminal have.SBJV escape.PTCP
 - '... Perhaps/Maybe the criminal had escaped.'
 - c. **De repente** eu tenha saído andar por aí e me perdi. of sudden I have.SBJV leave.PTCP to-walk by there and me lost 'Maybe/Perhaps I went for a walk and got lost.'81

Conversely, under the order in which ter-participle precedes de repente 'suddenly',

 $^{^{81} \}mathtt{https://www.vakinha.com.br/vaquinha/estrela-volte-a-brilhar-salve-ela}$

the interpretation would be one associated to $Asp_{Inceptive(I)}$. That is exactly what we see in (241) and (242). Thus, these findings suggest that the order that triggers an unexpected reading associated with repentinamente/de repente 'abruptly/suddenly' is postverbal.

(242) ... o criminoso teria fugido de repente. ... the criminal have.FUT.PST escape.PTCP of sudden '... The criminal had suddenly/*perhaps/*maybe escaped.'

As for the adverb sempre 'always,' prima facie ter 'have' can be either to its left or right, the latter ordering having a marked reading. In the following examples, we see that it is not the case that the auxiliary is to the left of the frequentative sempre⁸² 'frequently', which lexicalises a low functional projection. For instance, the interpretation of (243-b) is that in every point that took place before the reference point, it is true that the speaker had studied in private schools, a universal quantification that comes from aspectual/temporal sempre 'always'. Hence, the data in (243) suggest that ter 'have' precedes sempre 'always' in Asp_{Perfect}.

- Desde o início da vigência, o governo (243)(sempre) tem since the beginning of validity the government always have.PRS (??sempre) abaixo do valor autorizado pela (sempre) ficado always be.PTCP always below of-the value authorised by-the limitação estabelecida por emenda. limitation established by amendment 'Since the beginning of validity, the government has always been below the value authorised by the limitation established by constitutional amendment.
 - b. Antes, eu tinha sempre estudado em escolas particulares before I have.PST always study.PTCP in schools private pequenas, mesmo com bolsa.

 small even with scholarship

 'Before, I had always studied in small private schools, even with grant.'83(cf. Antes, eu (#sempre) tinha (sempre) estudado (??/*sempre) em escolas...

 'Before, I always had always studied always in schools...')
 - c. Molly tinha sempre tomado anticoncepcional desde quando
 M. have.PST always take.PTCP birth.control since when
 era adolescente por causa do seu problema hormonal.
 be.PST teenager by cause of-the her problem hormonal
 'M. had always been on birth control since she was a teenager because of her
 hormonal problem.'84(cf. Molly (#sempre) tinha (sempre) tomado (??*sempre) anticoncepcional... 'M. always had always taken always birth.control
 since...')

⁸²Otherwise, with a frequentative adverb, the interpretation of (243-b) would be that the speaker, before the reference point, had frequently studied in private schools, changing from public to private schools often.

⁸³https://supermentor.com.br/a/educacao-e-liberal-arts-conheca-o-rafael-monteforte-de-grinnell-col 84https://www.spiritfanfiction.com/historia/o-segredo-de-molly-hooper-6889977/ capitulo3

Concerning the higher adverb, we see that ter 'have' necessarily precedes ainda 'still':

(244) (Tescari Neto 2013: 48)

- a. *O José não **ainda** tinha chegado no serviço. the J. not yet have.PST arrive.PTCP at work
- b. O José não tinha **ainda** chegado no serviço. the J. not have.PST yet arrive.PTCP at work 'J. had not yet arrived at work.'
- c. O José não tinha chegado **AINDA** no serviço. the J. not have.PST arrive.PTCP yet at work 'J. had not yet arrived at work.'
- d. O José não tinha chegado no serviço **AINDA**. the J. not have.PST arrive.PTCP at work yet 'J. had not arrived at work YET.'

Furthermore, ter 'have' is in the mandatory position to the left of $n\tilde{a}o$... mais 'any longer' (245), but to the right of the $j\acute{a}$ 'already' adverb (246), where the postposition of the adverb generates a marked reading (Modesto 2000, Tescari Neto 2013, 2019).

- (245) a. *Maria não **mais** tem falado com o Pedro. M. no longer have.PRS speak.PTCP with the P.
 - b. Maria não tem mais falado com o Pedro.
 M. no have.PRS longer speak.PTCP with the P.
 'M. has no longer spoken to P.'
 - c. Maria não tem falado mais com o Pedro.
 M. no have.PRS speak.PTCP longer with the P.
 'M. has no longer spoken to P.'
 - d. *Maria tem não mais falado com o Pedro.
 M. have.PRS no longer speak.PTCP with the P.
 - e. *Maria tem falado não **mais** com o Pedro. M. have.PRS speak.PTCP no longer with the P.

(246) (Tescari Neto 2013: 48)

- a. *O José já tinha lido o livro*.

 The J. already have.PST.IPFV read.PTCP the book 'José had already read the book'
- b. *O José tinha **já** lido o livro.

 The J. have.PST.IPFV already read.PTCP the book
- c. ? O José tinha lido $J\acute{A}$ o livro. The J. have.PST.IPFV read.PTCP already the book 'José had ALREADY read the book'
- d. O José tinha lido o livro JÅ.

 The J. have.PST.IPFV read.PTCP the book already
 'José had ALREADY read the book'

Summary of the Section

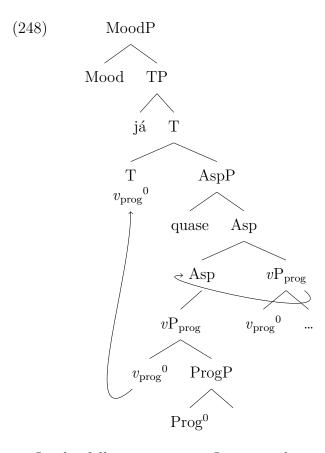
In a nutshell, so far, I demonstrated that estar 'be', ir 'go', and ter 'have' and their lexical non-finite verb behave alike, considering the syntactic structure they create: They do not display a tight connection, because not only the non-finite domain can be fronted, but also many different elements can intervene between them, viz. emphatic subjects, negation, clitics, and adverbs⁸⁵. Combined with that, I also presented some psycholinguistic data validating these loose structure auxiliaries in BP form with their complement: BP speakers do not process them as a single unity.

I also showed that *estar* 'be', *ter* 'have', and *ir* 'go', functional auxiliary verbs in BP, must follow the adverb $j\acute{a}$ 'already', at the same time as they must precede every lower adverb, such as *sempre*, *ainda*, *quase* 'almost', to cite a few. Differently, their non-finite domain cannot precede certain adverbs, such as *quase* 'almost' but must precede every lower adverb, such as *bem* 'well', *de novo* 'again'.

As a consequence of that, I claim that auxiliary verbs and their non-finite verb move together to an Aspectual position. This movement generates the post-verbal order of bem, for instance. Once in Asp, auxiliaries leave their non-finite domain. Later, they also must be ordered to the right of $j\acute{a}$ 'already' and to the left of every lower adverb. As I adopted the proposal that the split IP can be divided into Mood, Tense, and Aspect-fields (Schifano 2018: 134–135), it is reasonable to claim that BP auxiliary verbs along with their non-finite verb leave their vP shell and move to Asp-field. From there, auxiliaries move alone to the Tense field, leaving their non-finite verb behind in Asp-field.

I then suggest the following sequence of movement (248) to generate the order in (247), combined with (228) for *estar* 'be'. First, the auxiliary and its non-finite lexical verb move together to Asp-field. In this position, the auxiliary leaves the lexical verb and moves to T-field.

 $^{^{85}}$ In EP, it is possible to find sentences like *Estou sempre a cantar* ('be.PRS always P sing.INF'), where there is the intervening adverb *sempre*. This periphrastic structure, however, is not exactly the same as the analytic BP estar + gerund: following Raposo (1989: 296), the prepositional infinitival construction is formed by a PP, headed by the preposition a, which has as complement an infinitival clause. In this sense, since the structures are different, they cannot be compared as being equivalent in terms of syntactic unity, albeit both can display an intervening adverb.



In the following section, I turn to how auxiliary verbs behaved on BP diachrony, focusing our attention on *estar* in an analytic present Tense construction.

4.3 Aspects of BP analytic present Tense in Diachrony

As mentioned in Chapter 2, to constitute the diachronic data regarding the present Tense analyticisation, I searched on the TBC platform for the auxiliary verb *estar* 'be' inflected in the present Tense using the ET-P tag. Thereafter, I set variables that could shed some light on the behaviour of this analytic construction over time, *viz.* the complement of the auxiliary, the thematic role of the subject, and the adverb position with respect to the auxiliary verb. Below, the results of *estar* 'be' + gerund in BP diachrony are presented.

- (249) a. Complement
 - + Preposition a + infinitive
 - + Gerund
 - b. Thematic role of subject
 - + ANIMATE
 - + HUMAN
 - + EXPLETIVE
 - c. Adverb position

- + Pre-verbal
- + Post-verbal

Regarding the type of complement that estar.PRS selected, I found three throughout history (cf. Figure 4.2, below): (i) Gerund verb ($est\acute{a}$ chovendo 'be.PRS + rain.GER'), 385 occurrences; (ii) preposition a + infinitive verb ($est\acute{a}$ a chover 'be.PRS + to + rain.INF'), 3 occurrences, both equivalent to the synthetic present Tense; and another complement, viz. (iii) preposition para + infinitive ($est\acute{a}$ para chover 'be.PRS to rain.INF'), 6 occurrences, with a prospective reading (equivalent to the English be about to).

From Figure 4.2, we see that the gerund is the complement most selected by estar.PRS, and the two other complements only appear at some points in the diachrony. It should be noted that conveying present Tense, the infinitival complement in estar.PRS + a + infinitive was in the BP system in three periods, 1737, 1845, and 1857, disappearing completely after that (cf. Figure 2.15 for general results on estar + preposition a + infinitive, with estar in any Tense). Additionally, there was in the system estar.PRS + para + infinitive, with a prospective reading, which presented a certain frequency in 1737, appearing residually in 1957, no longer in the data. The examples below exemplify the estar 'be' structures in the diachronic corpus analysed.

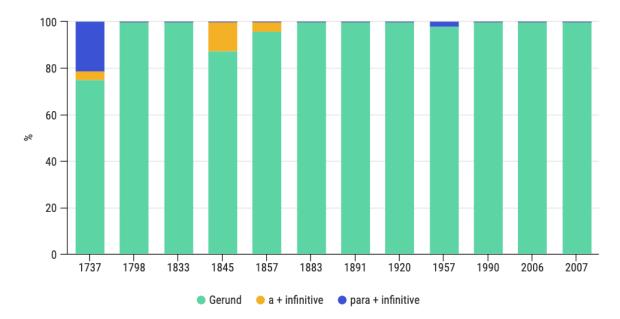


Figure 4.2: Diachronic path of the present analytic construction: estar.PRS + gerund, estar.PRS + a + infinitive, estar.PRS + para + infinitive.

(250) $estar.PRS + gerund^{87}$

a. Sinto em mim vários efeitos/ Há bem pouco para $c\acute{a}$,/ E o fell.PRS in me many effects have.PRS well little to here and the

⁸⁶Although in contemporary BP, such periphrasis is grammatical with prospective reading.

⁸⁷Cf. Appendix B for examples from each play.

meu coração no peito **está fazendo** ta, ta, ta. my heart in-the chest be.PRS do.GER ta ta ta 'It's been a while since I've been feeling several effects on me, and my heart in my chest is going ta, ta, ta'

(1798/18 - VL)

- b. Pensava que já não podia falar co'o Senhor think.PST.IPFV that already no can.PST.IPFV talk.INF with=the mister José, que está esperando-me debaixo dos cafezeiros.
 - J. that be.PRS wait.GER=me under of-the coffee.trees 'I thought that I could no longer speak with Mr. J., who is waiting for me under the coffee trees.'

(1833/19 - OJPR)

c. Ei, Tião, está me ouvindo? hey T. be.PRS me listen.GER 'Hey, T., are you listening to me?'

(1957/20 - ENUBT)

d. **Está insinuando** alguma coisa, sua palhaça? be.PRS insinuate.GER some thing your clown 'Are you insinuating something, you clown?'

(2006/21 - MMEUP)

- (251) estar.PRS + a + infinitivo
 - a. Não falemos nisso que ainda **estou a tremer**. no talk.IMP on-this that still be.PRS to tremble.GER 'Let's not talk about this, because I'm still trembling.'

(1737/18 - GAM)

b. O que **está** o senhor **a dizer**? the what be.PRS the sir to say.GER 'What are you saying, sir?'

(1845/19 - ON)

c. **Está** sempre **a torcer** o bigode! be.PRS always to twirl.GER the mustache 'He's always twirling his mustache.'

(1857/19 - ODF)

- (252) estar.PRS + para + infinitivo
 - a. Só em cuidar no que vi, estou para me desmaiar. just in take.INF in-the that see.PST be.PRS to me faint.INF 'Just looking at what I saw, I'm about to pass out.'

(1737/18 - GAM)

b. Se a cor é acidente, estou para desmaiar, vendo a if the colour be.PRS accident be.PRS to faint.INF see.GER the sem-razão, com que me criminas. without-reason with that me blame.PRS 'If the colour is an accident, I am about to faint, considering the lack of reason with which you blame me.' (1737/18 – GAM)

c. É verdade que a Sant'Angela está para aderir? be.PRS true that the S A. be.PRS to join.INF 'Is it true that S.A. is about to join it?' (1957/20-ENUBT)

To investigate the preference for a present Tense analytic construction over time, I measured the proportion of estar.PRS + gerund with respect to the number of words in each play (cf. also Section 2.3.2). In doing so, I found that the usage of the auxiliary estar.PRS (está chovendo 'be.PRS rain.GER') equivalent to the synthetic present Tense grows from the end of the 19th century. Figure 4.3 shows that between 1737 and 1891, the average occurrence of this structure was around 0.05%, while from 1920, the average of occurrence rose to 0.3% regarding the number of words.



Figure 4.3: Diachronic path of the present analytic construction estar.PRS + gerund conveying a present Tense $per\ se$ by number of words in the corpus.

When I compared analytic *estar* not with the number of words, but with the other structures that conveyed Tense over time, *viz.* the synthetic present, a big change over time was detected. Figure 4.4 shows how the present Tense interpretation evolved. We can notice that whilst *estar*.PRS has always conveyed present Tense in BP, this usage grew abruptly after the end of the 19th century.

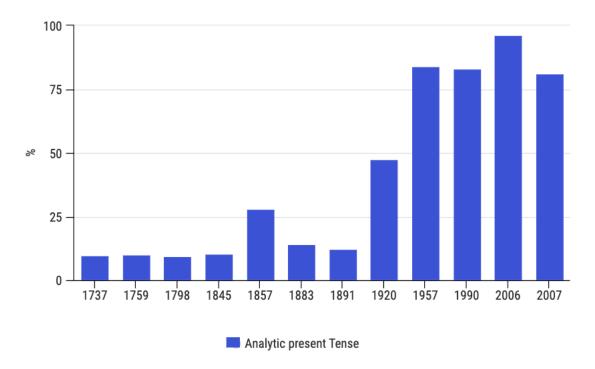


Figure 4.4: Diachronic path of the present analytic construction estar.PRS + gerund conveying a presente Tense per se.

Combined, Figures 4.3 and 4.4 suggest then that BP speakers began to more frequently convey present Tense through the analytic construction, that is, abandoning the synthetic tendency from before the 19th century, giving rise to two patterns throughout BP history: Two periods are recognised: (i) prior to the 20th century, estar.PRS + gerund conveying present Tense is used unproductively and (ii) after the end of the 19th century, the Present analytic construction increases dramatically. Albeit the subject being realized or not is not central to this dissertation, since the interest here concerns the degree of absence of subject selection, envisioned by the presence of expletive subjects, for the sake of completeness, I decided to include the quantification of all subjects of estar.PRS, whether realised or not (null or expletive). During the period analysed, with regards to the phonological realization of the external argument of the verb estar. PRS, I found null and expletive subjects, and subjects realised phonologically, as Table 4.9 shows (I present the data on realised subjects when I discuss the semantic selection of estar. PRS). Data from the diachronic investigation are in (253) and (254). There was a small number of occurrences of expletive subjects in the corpus (cf. (253)), albeit sentences like está chovendo 'be.PRS' rain.GER ('it is raining'), está ficando tarde 'be.PRS stay.GER late' ('it is getting late') are pretty common in present-day BP. On the contrary, in the corpus, I found more null subjects (254) and filled subjects (255).

(253) Expletive Subjects of $estar.PRS + gerund^{88}$

a. ... nem cenas de drama sobre o eterno tema do calor que \emptyset neither scenes of drama about the eternal theme of heat that $est\acute{a}$ fazendo.

be.PRS do.GER

"... nor scenes of drama about the eternal theme of the heat that we are having."

(1857/19 - ODF)

b. $Mas \not o j\acute{a} est\acute{a} escurecendo.$ but already be.PRS darken.GER 'But it is already getting dark.'

(1891/19 - OT)

c. ø tá chovendo. be.PRS rain.GER 'It's raining.'

(1883/19 - CM)

d. Traz primeiro o lampião da sala, que \emptyset já está ficando bring.IMP first the lamp of room that already be.PRS stay.GER escuro.

dark

'Bring first the living room lamp, because it's already getting dark.'

(1920/20 - OCS)

- (254) Null Subjects of $estar.PRS + gerund^{89}$
 - a. **pro** estou ardendo com zelos!
 be.PRS burn.GER with zeal
 'I'm burning with zeal.'

(1737/18 - GAM)

b. O que **pro** estás dizendo? the what be.PRS say.GER 'What are you saying?'

(1883/19 - CM)

c. **pro** estão rindo de quem? be.PRS laugh.GER of who Who are you laughing of?

(1990/20 - AP)

d. **pro** estou te falando como amiga, mas, se você não
be.PRS CL.2SG speak.GER as friend but if you not
quiser ouvir!
want.FUT.SBJV listen.INF
'I'm telling you that as a friend, but if you don't want to listen...'

(2007/21 - FSB)

 $^{^{88}\}mathrm{Cf.}$ Appendix B for examples from each play.

 $^{^{89}}Idem.$

Century/year	Subj			
		Total		
	Realised	Null	Expletive	
18/1737	7 39%	11	0	24
·		61%	0%	100%
18/1798	$1 \\ 33\%$	$\frac{2}{67\%}$	$0 \\ 0\%$	$\frac{3}{100\%}$
19/1833	2	0	0	2
,	100%	0%	0%	100%
19/1845	$\frac{1}{14\%}$	$\frac{6}{86\%}$	$0 \\ 0\%$	$\frac{8}{100\%}$
19/1857	20	5	1	27
,	77%	19%	4%	100%
19/1883	$0 \\ 0\%$	$\frac{2}{67\%}$	$1 \\ 33\%$	$\frac{3}{100\%}$
19/1891	3	4	1	8
13/1031	38%	50%	13%	100%
20/1920	$29 \\ 52\%$	$\frac{26}{46\%}$	$1 \\ 2\%$	$\frac{56}{100\%}$
20/1957	27	37	0	65
20/1301	42%	58%	0%	100%
20/1990	35	19	0	54
,	65%	35%	0%	100%
21/2006	$69 \\ 54\%$	$\frac{58}{46\%}$	$0 \\ 0\%$	$127 \\ 100\%$
21/2007	11	6	0	17
	65%	35%	0%	100%

Table 4.9: Subject (non-)realisation of the auxiliary in estar.PRS + gerund structure.

As far as subject semantic selection is concerned, Table 4.10 presents the diachronic results of the subjects phonologically realised and of the null subjects (whose thematic role was retrieved by the context), whether \pm ANIMATE or \pm HUMAN. It was important to compute such data to certify that the absence of semantic selection of the subject has always been a property of estar.PRS auxiliary. As expected, we can see that estar.PRS has never selected their arguments over time. The examples in (255)–(257) show that any type [\pm ANIMATE; \pm HUMAN] could be its subject.

(255) estar.PRS and [+ANIMATE; +HUMAN] subjects⁹⁰
a. Nhanhá eu digo a você Diga-me você a mim, (eu) estou
N. I say.PRS to you tell.IMP=me you to me I be.PRS

⁹⁰Cf. Appendix B for examples from each play.

morrendo de amor estará você assim? dye.GER of love be.FUT you like.that 'Nhanhá, I tell you. You tell me, I'm dying of love, are you like this?' (1798/18 – VL)

b. Venha, **mamãe** está nos esperando. come.IMP mom be.PRS CL.1PL wait.GER 'Come on, mom is waiting for us.'

(1883/19 - CM)

c. **A** senhora está sentindo alguma coisa? the lady be.PRS fell.GER some thing 'Is the lady feeling something?'

(1957/20 - ENUBT)

d. Vocês estão delirando.
 you be.PRS rave.GER
 'You are raving.'

(1990/20 - AP)

e. Pois eu não estou contando para vocês que agora ele está because I not be.PRS tell.GER to you that now he be.PRS me seguindo para realizar sua fantasia de transar CL.1SG follow.GER to realise.INF his fantasy of have.GER.sex comigo?

with=me

'But aren't I telling you that now he's stalking me to fulfill his fantasy of having sex with me?'

(2007/21 - FSB)

- (256) estar.PRS and [+ANIMATE; -HUMAN] subjects
 - a. \acute{E} o "Diamante" que está cantando. be.PRS the D. that be.PRS sing.GER 'It's the D. who is singing.'

(1920/20 - OCS)

b. **Esse animal** está cheirando minhas axilas! this animal be.PRS smel.GER my armpit 'This animal is smelling my armpits!'

(1990/20 - AP)

c. E eu tenho para mim que **passarinho** piando está pedindo and I have.PRS to me that bird chirp.GER be.PRS ask.GER ajuda.

help

'I have this thing that if a little bird is chirping, it means it's asking for help.'

(2006/21 - MMEUP)

- (257) estar.PRS and [-ANIMATE; -HUMAN] subjects⁹¹
 - a. (= cf. (250-a))
 - b. (1891/19 O tribofe)

O tempo está refrescando the time be.PRS refresh.GER 'The weather is getting cooler.'

(1891/19 - OT)

c. **Teu terno** está lavando. your suit.PRS be.GER wash 'You suit is being washed.'

(1957/20 - ENUBT)

d. Olha, vou ter que desligar porque a panela está look.IMP go.PRS have.INF that turn.off.INF because the pan be.PRS no fogo e está apitando lá. on-the stove and be.PRS whistle.GER there 'Look, I'm going to have to turn it off because the pan is on the stove and it's whistling.'

(2006/21 - MMEUP)

On the question of the position of auxiliaries, one of the challenges of diachronic work is finding data with the specific type of structure one wants to highlight or falsify. In this dissertation, a clear example of this concerns the position of the auxiliary in relation to adverbs in diachrony. I found a few cases where adverbs appeared around the auxiliary *estar*.PRS in the analytic present Tense, but not all were useful diagnoses for verb movement over time.

Analytic Present Tense and 'só' just in diachrony

I begin with the data regarding estar.PRS in the analytic present Tense structure following adverbs, i.e., in an ADV_estar.PRS configuration. In the diachrony, I only found 1 datum of the adverb $s\acute{o}$ 'just' modifying the present Tense analytic construction. According to Tescari Neto (2015: 586), this adverb is positioned in the high position of the universal hierarchy, sandwiched between $Asp_{Repetitive(I)}$ (again), and $Asp_{Frequentative(I)}$ (often). ⁹² In our data, this adverb with a focus reading preceded the auxiliary estar.PRS:

(258) Eu só estou tentando um jeito de não ter inimigo aqui. I just be.PRS try.GER a way of not have.INF enemy here 'I'm just trying not to have a enemy around.'

(2006/21 - MMEUP)

⁹¹Cf. Appendix B for examples from each play.

⁹²The order suggested by Tescari Neto (2015: 587) is the following:

^{...[}tendencialmente $\operatorname{Mod}_{\operatorname{Predispositional}} > [\operatorname{de} \operatorname{novo} \operatorname{Asp}_{\operatorname{Repetitive}(I)} > [\operatorname{\mathbf{s\acute{o}}} \operatorname{\mathbf{Foc}}_{\operatorname{\mathbf{Exclusive}}(I)}]$ [frequentemente $\operatorname{Asp}_{\operatorname{FrequentativeI}} > [\operatorname{de}/\operatorname{com} \operatorname{gosto} \operatorname{Asp}_{\operatorname{Volitivo}}]$...

Century / year		Es	star.p	ors	
	+ANIM +H	IATE -H	-ANI +H	MATE -H	Total
18/1737	16 89%	0 0%	-	2 11%	18
18/1798	$\frac{1}{33\%}$	$0 \\ 0\%$	-	$\begin{array}{c} 2 \\ 67\% \end{array}$	3
19/1833	$\begin{array}{c} 2\\ 100\% \end{array}$	$0 \\ 0\%$	-	$0 \\ 0\%$	2
19/1845	$7\\100\%$	$0 \\ 0\%$	-	$0 \\ 0\%$	7
19/1857	$\begin{array}{c} 20 \\ 77\% \end{array}$	$\begin{array}{c} 1 \\ 4\% \end{array}$	-	$5\\19\%$	26
19/1883	$\begin{array}{c} 2\\ 100\% \end{array}$	$0 \\ 0\%$	-	$0 \\ 0\%$	3
19/1891	$6 \\ 86\%$	$0 \\ 0\%$	-	$\begin{array}{c} 1 \\ 14\% \end{array}$	8
20/1920	$\begin{array}{c} 49 \\ 91\% \end{array}$	$\begin{array}{c} 1 \\ 2\% \end{array}$	-	$\frac{4}{7\%}$	56
20/1957	$\begin{array}{c} 61 \\ 97\% \end{array}$	$0 \\ 0\%$	-	$\frac{2}{3\%}$	64
20/1990	$\begin{array}{c} 49 \\ 91\% \end{array}$	$\begin{array}{c} 1 \\ 2\% \end{array}$	-	$\frac{4}{7\%}$	54
21/2006	$\frac{114}{90\%}$	$\begin{array}{c} 1 \\ 1\% \end{array}$	-	12 9%	127
21/2007	$\frac{16}{94\%}$	$0 \\ 0\%$	-	$\begin{array}{c} 1 \\ 6\% \end{array}$	17

Table 4.10: Subject Semantic Selection of the Verb $\operatorname{\it estar}$ in $\operatorname{\it estar}$.PRS + gerund structure.

Analytic Present Tense and 'not' not in diachrony

Regarding the adverb $n\tilde{a}o$ 'not', our data show that in every negative sentence (259), the auxiliary followed it.

(259) a. **Não** estou entendendo nada. not be.PRS understand.GER nothing 'I don't understand anything.'

(1920/20 - OCS)

b. Escuta, tu não está topando muito a greve não, não é? listen.IMP you not be.PRS join.GER very the strike not not be Listen, you aren't really buying the strike, are you?'

(1957/20 - ENUBT)

c. **Não** estou achando graça. not be.PRS think.GER funny 'I don't think it is funny.'

(1920/20 - AP)

d. E para provar que **não** estou mentindo, o livro tem and to prove.INF that not be.PRS lie.GER the book have.PRS pedaço de jornal, e-mail, foto, bilhete e tudo o mais. piece of newspaper e-mail photo note and everything the more 'And to prove I'm not lying, the book has a pieces of newspaper, e-mails, photos, notes, and everything else.'

(2006/21 - MMEUP)

e. (= cf. ((255-e)))

Analytic Present Tense and 'já' already in diachrony

When it comes to the adverb $j\acute{a}$ in $T_{Anterior}$, which marks the border of high and low adverbs, we see that the auxiliary consistently never preceded this adverb throughout the diachrony, suggesting that estar 'be' always ended up in T, not higher (at least, of course, when $j\acute{a}$ was in the sentence):

(1857/19 - ODF)

- b. (= (cf. (253-b))
- c. (= (cf. (253-d))
- d. **Já** estou indo, sua chata! already be.PRS go.GER your annoying 'I'm coming, you ass!'

(1957/20 - ENUBT)

e. Você **já** está trocando as pernas. vou already be.PRS change.GER the legs 'You're already staggering.'

(1990/20 - AP)

- f. Eles também acham que a gente fala rápido, mas agora they also think.PRS that the people speak.PRS fast but now que estão vendo tudoque é novelabrasileirathat be.PRS see.GER everything that be.PRS soap.opera Brazilian estão ficando craques em falar já como aalready be.PRS stay pros in talk.INF like the people 'They also think that we speak fast, but now that they're watching every single Brazilian soap opera, they're already becoming pros at speaking like us.' (2006/21 - MMEUP)
- g. **Já** estou indo! already be going 'I'm coming!'

(2007/21 - FSC)

Analytic Present Tense and 'quase' almost and $s\acute{o}$ 'only/exclusively' in diachrony

When quase 'almost' was in a sentence, estar.PRS always preceded it (261), as well as the adverb of exclusion, só 'exclusively/only' (cf. (262)), the latter positioned between Asp_{Frustative} (in vain) and Asp_{SgCompletive} completely (Tescari Neto 2015: 597), ⁹³ a low adverb.

- (261) a. que lhe deu esta noite uma cólica, e está quase that CL.3SG give.PST this night a colic and be.PRS almost indo-se por um fio; go.GER=CL.3SG by a strand 'that gave him a cramp last night, and he's hanging by a thread' (1737/18 GAM)
 - b. Seu Otávio está quase brigando no botequim!
 S. O. be.PRS almost fight.GER at-the bar
 'S. O. is almost fighting at the bar!'

(1957/21 - ENUBT)

 $mas\ botei$ Dizem que lá você acha tudo. $l\acute{a}$ "preciso say.PRS that there you find.PRS everything but put.PST there need.PRS de emprego para meu filho Juliano que não quer trabalhar porque of job to my son J. that not want.PRS work.INF because é cara dele para eu sonso eestou **quase** dando naand be.PRS almost give.GER in-the face of-his to I resolver minha situação porque eu estou nervosa" e apertei "enter". situation because I be.PRS nervous and press enter fix.INF mv

 $^{^{93}}$ The order suggested by the author is ...[obligatorily Mod_{Obligation} > [in vain Asp_{Frustrative} > [exclusively/only Foc_{Exclusive(II)}[(?) > [completely Asp_{SgCompletive} > ...

'They say you can find everything there, but I put it there "I need a job for my son J. who doesn't want to work because he's lazy and I'm almost slapping his face to solve my situation because I'm nervous and hit "enter": (2006/21 - MMEUP)

(262) a. mas eu cá de baixo, estou **só** espreitando; but I here from bottom be.PRS just lurk.GER 'But here from the bottom, I'm just lurking.'

(1858/19 - MMEUP)

b. Estou **só** dizendo que agora não tem mais jeito.
be.PRS just say.GER that now not have.PRS more way
'I'm just saying that now there is no other way.'

(1957/20 - ENUBT)

c. estou **só** tomando chope em barzinho. be.PRS just drink.PRS draught.beer in little.bar 'I'm just having pints at bars.'

(2006/21 - MMEUP)

(263) (1957/20) Tu está and and o de novo com aquela turma? you be.PRS walk.PRS again with that gang 'Are you going around with that group again?'

(1957/20 - ENUBT)

Analytic Present Tense and adverbial expressions in diachrony

As mentioned before, I found adverbs that do not strictly match the adverbs in (121), which I used to diagnose verb movement. The following sentences illustrate these cases, where estar.PRS preceded aqui 'here', manner adverbs such as desapiadadamente 'ruthlessly', calmamente 'calmly', and mal 'bad'. Additionally, I also found the auxiliary sandwiched between $n\tilde{a}o$... nem 'not ... even'.

(264) a. estou **aqui** dando duro ano mais ano e ainda não morri. be.PRS here give.GER hard year more year and still not die.PST 'Here I am working hard, year after year, and I'm not dead yet.'

(1957/20 - ENUBT)

b. Dona Maria, sabe, sua filha está zombando
 D. M. know.PRS you daught be.PRS mock.GER
 desapiedadamente de mim.

ruthlessly of me

'D.M., you know, your daughter is mocking mercilessly of me.'

(1857/19 - ODF)

c. Estou calmamente vindo para casa.
be.PRS calmly come.GER to home
'I'm calmly going home.'

(1957/20 - ENUBT)

d. Tu está acostumando **mal** esse menino. you be.PRS get.GER.used.to bad this boy 'You are spoiling him badly.'

(1957/20 - ENUBT)

e. estou mesmo precisando de uma sombra. be.PRS even need.GER of a shadow 'I really need a shadow.'

(1957/20 - ENUBT)

f. Eu não estou nem dizendo para não fazer coisa errada, porque I not be.PRS neither say.GER to not do.INF thing wrong because isso é impossível.

this be.PRS impossible

'I'm not even saying to not do wrong things, for it's impossible.'

(2006/21 - MMEUP)

In the diachronic data, I also found *estar*.PRS + gerund triggering interpretations beyond the present Tense, as is the case in present-day BP (150-b). The examples bellow suggest that this analytic construction has always conveyed a durative/habitual reading.

(265)Beloverdade, bordado com uns vivos brancos, e dea. nabeautiful in-the truth embroidered with a live white and of tão vivas, que estão faltando.colours so true that be.PRS miss.GER 'Beautiful really, embroidered with vivid whites, and colors so vivid that they have been missing.'

(1737/18 - GAM)

- b. Nhanhá eu digo a você. Diga-me você a mim, estou morrendo
 N. I say.PRS to you tell.IMP=me you to me be.PRS die.GER de amor estará você assim?
 of love be.FUT you so
 'N., I tell you. You tell me, I'm dying of love, are you so, too?'
 (1798/18 VL)
- c. Manoel João está todos os dias vestindo a farda M. J. be.PRS every the day wear.GER the uniform 'M.J. is wearing the uniform every day.'

(1833/19 - OJPR)

d. estão indagando na vizinhança. be.PRS inquire.GER in-the neighborhood 'They been inquiring in the neighborhood'

(1845/19 - ON)

e. Assim os meus morangos estão morrendo, porque as tuas violetas so the my strawberries be.PRS die.GER because the your violet não deixam.

not let.PRS

'So my strawberries have been dying, because your violets won't let.'

(1857/19 - ODF)

f. Ela está atualmente fazendo um bruto sucesso num cabaré de she be.PRS currently do.GER a huge success in-a cabaret of Montmartre.

Montmartre

'She is currently enjoying wild success in a Montmartre cabaret.'

(1920/20 - OCS)

g. A tia também está dando duro. the aunt too be.PRS give.GER hard 'Aunt is working hard too.'

(1957/20 - ENUBT)

- h. O senhor sabe o que está acontecendo nos aeroportos the sir know.PRS the what be.PRS happen.GER in-the airports do mundo, não sabe? of-the world not know.PRS
 'You know what has been going on in the world's airports, don't you?'

 (1990/20 AP)
- i. Parece que você que está bebendo! seem.PRS that you that be.PRS drink.GER 'It seems you have been drinking.'

(2006/21 - MMEUP)

j. Desculpe Fulana, talvez você nem tenha culpa, mas na verdade, sorry F. maybe you nor have.SBJV fault but in-the truth o seu marido está passando por uma fase de carência. the your husband be.PRS pass.GER by a phase of needy 'Sorry F., maybe it's not your fault, but in fact, your husband has been going through a needy phase.'

(2007/21 - FSB)

In this section, I presented the diachronic data regarding the behaviour of the auxiliary estar.PRS in the analytic present Tense construction. I showed that it has never selected its subjects, and has always selected gerund complement. We thus see that since the 18th century, BP speakers convey a present Tense interpretation via the analytic structure estar.PRS + gerund. Additionally, they have always been triggering Aspectual interpretations likewise.

Regarding the position of auxiliaries with respect to fixed adverbs over time, the diachronic data suggest that this auxiliary behaved in the past exactly the way it does in present-day BP: It moved to the T-field, as is still the case in contemporary BP (Section 4.2), not preceding $j\acute{a}$ 'yet' and higher adverbs, at the same time that it followed every lower adverb. In the following section, I present additional diachronic data concerning auxiliaries in other analytic constructions.

4.3.1 Aspects of BP other analytic constructions in Diachrony

In Section 4.1, I presented the verbal paradigm of Brazilian Portuguese. I showed that practically all tenses and verbal modes have an equivalent analytic construction. It is then reasonable to suggest that BP is in an advanced process of its verbal paradigm being analysed, as has already been claimed (Reintges & Cyrino 2016, 2018, Carvalho & Bassani 2021, Araújo-Adriano 2019b, 2022). In this subsection, the emergence of analytic structures is explored in the BP diachrony, the results of which were obtained from queries for each verbal periphrasis in comedy theatre plays available in the Corpus Tycho Brahe. The goal of this subsection is to investigate in which period of the history of the language the infamous preference for the other analytic structures is evident, in addition to the preference for estar.PRS + gerund.

I sought analytic structures equivalent to each Tense in the paradigm adapted from Reintges & Cyrino (2018: 191) presented in Table 4.1 and repeated here in Table 4.11 for convenience (but see Table 4.7).

Tense	Synthetic Tense	Compound Tense
Present	eu falo	eu estou falando
Imperfect	eu falava	eu estava falando
Simple past	eu falei	-
Future	eu falarei	eu vou falar
Plus-perfect	eu falara	eu tinha falado
Future perfect	-	eu terei falado
Past perfect	-	*eu tive falado

Table 4.11: The BP temporal paradigm (Adapted from Reintges & Cyrino 2018: 191).

The tendency towards an analytical system is clearly evidenced in the diachrony of the language. With the following results, it is possible to attest to the gradual preference for verbal analytic forms from the gradual increase of these structures by the number of words over the centuries. We notice that such a trend is evidenced by the considerable growth of these structures over time, specifically in the mid to late 19th century.

The analytic future Tense ir.PRS + infinitive ($vou\ falar$ 'go.PRS + speak.INF') equivalent to falarei 'speak.FUT' increases over time, most notably, from the end of the 19th century in our diachronic data⁹⁴ (cf. also Araújo-Adriano 2019b: 114). Figure 4.5 shows that while in the period between 1737 and 1891, the average of this structure was 0.082 per word in the plays, in the period after the 20th century, this average rose to 0.51. I represented this usage by each century in (266).

⁹⁴Since TBC does not have a tag for the verb *ir* 'go', as mentioned in Chapter 2, I had to search for all possible inflections of this verb by querying specific words for the VB label in the *corpus*, *viz. vou*, *vais*, *vai*, *vamos*, *ides*, *vão*, *ia*, *ias*, *íamos*, *íeis*, *iam*, *iria*, *iriamos*, *iríeis*, *iriam*, *irei*, *irás*, *irá*, *iremos*, *ireis*, *irão*.

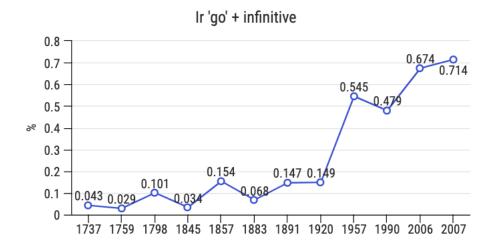


Figure 4.5: % of occurrence of the future Tense analytic construction (by number of words) from 18th- to 21st-century plays.

(266) $Eu \ vou$ **beijar**-lhos Seja o que o for. go.PRS kiss.INF=CL be.SBJV what CL be.INF 'I will kiss them, whatever it is.'

(1798/18 - VL)

b. Um momento, estou preso, voupassar6 anos na cadeia, be.PRS arrested go.PRS spend.INF 6 years in-the jail exultai, senhoras... triumph ladies

'One moment, I'm under arrest, I'm going to spend 6 years in jail, rejoice, ladies.

(1845/19 - ON)

- A Nair é que **vai** ficarcontentíssima! c. be.PRS that go.PRS stay.INF happy 'N. will be the one that is going to be extremelly happy about it.' (1920/20 - OCS)
- d. mundo **vai acabar** por causa de filho mimado, não é 'The world will end because of a spoiled child, it's not desastre da natureza, não! the world qo.PRS end.INF by a natural disaster, no!' cause of son spoiled not be.PRS by disaster of-the nature no

(2006/21 - MMEUP)

As for the conditional synthetic form dormiria 'sleep.COND', one observes that its analytical counterpart, ir.IPFV + infinitive (ia dormir 'go.IPFV + sleep.INF'), was residual, barely used until the end of the 19th century (cf. Figure 4.6). After that period, there was a leap in the average rate of this analytic construction: From an average of 0.001% to

0.102% per word in the 20th and 21st centuries. Examples are in (267).

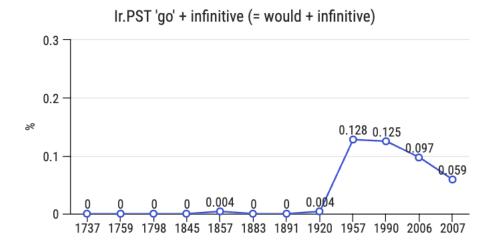


Figure 4.6: % of occurrence of the future Tense analytic construction (by number of words) from 18th- to 21st-century plays.

(267) a. Porque hoje o noivo ia jantar em sua casa. because today the groom go.PST.IPFV have.INF.dinner in his house 'For today the groom would have dinner in his house.'

(1857/19 - ODF)

b. Eu pensei que tudo **ia ser** bem diferente! I think.PST that everything go.PST.IPFV be.INF well different 'I though that everything would be much more different.'

(1957/20 - ENUBT)

c. Se fosse hoje, a gente ia ser conhecida como as if be.PRS today we be.PST.IPFV be.INF know as the meninas super-poderosas! (2007) girls super-powerful 'If it were today, we would be known as the super powerful girls.'

(2007/21 - FSB)

Likewise, the analytic plus-perfect ter.PST.IPFV + participle (tinha falado 'have.PST.IPFV speak.PTCP') doubled in frequency per word when compared to its synthetic counterpart dormira 'sleep.PLPF', being used 0.015% between the 18th and 19th centuries and with a frequency of 0.033% per word between the 20th and 21st centuries. Some representative examples appear in (268).

Ter.PST 'have' + participle (= had + participle) 0.1 0.0513 0.04540.0468 0.00228 0.0073 0.0145 0.00228 0.0073 0.00228 0.0037 0.00222 0.0073 0.00222 0.0073

Figure 4.7: % of occurrence of the plus-perfect analytic construction (by number of words) from 18th- to 21st-century plays.

(268) a. Amor mo **tinha roubado**. love CL.1SG=CL.3SG have.PST.IPFV steal.PTCP 'My love had stolen it from me.'(1798)

be.PRS stupid.

- b. Ainda o outro dia contou o que se tinha passado still the other day tell.PST what CL have.PST.IPFV numa reunião secreta! happen.PTCP in-a meeting secret 'Just the other day he told what had happened in a secret meeting.'

 (1891/19 OT)
- c. Tu não disse que **tinha guardado** dinheiro só para me you not say.PST that have.PST.IPFV save.PTCP money just to me dar chocolate?

 give.INF chocolate
 'Didn't you tell me that you had saved money just to give me some chocolates?'

d. Eu fiquei quieta, fingi que **tinha entendido**,
I stayPST quiet pretend.PST that have.PST.IPFV understand.PTCP
porque não queria passar a impressão de que brasileiro
for not want.PST.IPFV pass.INF the impression of that Brazilian
é burro.

'I kept quiet, I pretended I understood, because I didn't want to give the impression that Brazilians are stupid.'

(2006/21 - MMEUP)

(1957/20 - ENUBT)

As for the analytic imperfective estar.PST.IPFV + gerund (estava dormindo 'be.PST.IPFV

sleep.GER'), in a similar reading to that conveyed by the imperfect Tense (eu dormia quando... 'I sleep.PST.IPFV when...'), although it has few occurrences in the corpus, one can attest to an increase in the average of occurrences: Based on Figure 4.8, it can be stated that there are two scenarios in the diachronic data: On the one hand, the period between 1737–1891 with an average of 0.001% of the number of words and, on the other hand, an average six times greater, with 0.06% between 1920–2006. Examples are in (269).

Estar.PST 'be' + gerund (= was + gerund) 0.091 0.085 0.094 0.027 0.011 0.012 0.009 0.033 0.085 0.094

Figure 4.8: % of occurrence of the past imperfect analytic construction (by number of words) from 18th- to 21st-century plays.

(269) a. Eu o estava dizendo. I CL be.PST.IPFV tell.GER 'I was telling this.'

(1737/18 - GAM)

b. **estava examinando** umas pedras encontradas aqui no Morro be.PST.IPFV examine.GER a rocks found here at-the Morro de Santo Antônio...

de Santo Antônio

'I was examining some rocks that were found here at the Morro de Santo Antônio.'

(1891/19 - OT)

c. Não ouviu porque em vez de estar tratando de sua obrigação, no listen.PST because in turn of be.INF treat.GER of you obligation estava vendo armar o circo.

be.PST.IPFV see.GER build.INF the circus 'He didn't listen because instead of doing his duty, he was watching the circus set up.'

(1920/20 - OCS)

d. Aí eu confessei que não sabia sobre o que ele then I confess.PST that no know.PST.IPFV about what he estava dizendo.

be.PST.IPFV say.GER

'And then, I confesses that I did not know about what he was talking.' (2007/21 - FSB)

Additionally, although there are not many cases of different/significant adverbs cooccurring with auxiliaries over time, which would give us evidence of their movement, in diachrony, I found instances where auxiliaries preceded some adverbs, viz. ainda 'still', and quase 'almost' (270)–(271). As we saw previously, this order is currently ungrammatical with lexical verbs (272). In the absence of further evidence to the contrary, I hypothesise that auxiliary verbs in other analytic constructions moved to the T-field in the past, as they do today.

- (270) Chamei-te para te dizer que vais ainda hoje ter uma grande call.PST=CL to CL tell.INF that go.PRS still today have.INF a big alegria.

 happiness
 'I called you to tell you that you are still going to experience great joy today.'

 (1920/20 OCS)
- (271) Por sua causa estive <u>quase</u> não vindo.
 by your fault be.PRS almost not come.GER
 'Because of you, I was almost not coming.'

 (1857/19 ODF)
- (272) Maria <u>quase</u> **terminou** (*quase) a pintura (*quase).

 M. almost finish.PST the painting
 'M. almost finished the paiting.'

The hypothesis that auxiliary verbs moved to a higher position in the past might be in the right direction. Investigating BP in the 17th and 18th centuries, Corôa (2022: 327) found 20 cases of auxiliary verbs in an adjacent position regarding the adverb $j\acute{a}$: In 11 of the cases, auxiliaries preceded $j\acute{a}$ in the 18th century. This position corroborates that auxiliary verbs moved to the T-field in the past.

4.4 Summary of the Chapter

In this Chapter, I investigated the analytic verb paradigm of BP. I attested that analytic constructions have always been part of the BP system. Although further research needs to be carried out to deepen our knowledge of these analytic constructions, we can clearly observe that they triggered the temporal interpretations primarily triggered by their synthetic counterpart throughout the whole diachrony. However, something happened by the end of the 19th century when BP speakers started to massively use analytic constructions, given that their use suddently increased for all analytic forms. With reference to the position of ir 'go' and ter 'have' over time, although I did not have evidence for many adverbs, when quase was in the sentence, these auxiliaries preceded it, which suggests they moved higher than lexical verbs, a different pattern to the contemporary lexical verbs

(cf. (127)).

I also showed in this chapter that the auxiliaries that convey present, future, and plus-perfect display certain syncretism regarding Tense and other grammatical categories, such as Aspect. For instance, *ir*.PRS triggers not only future Tense, but also prospective Aspect; *ter*.PST.IPFV conveys plus-perfect and, arguably, past Tense; and *estar*.PRS is syncretic between durative Aspect and present Tense.

Speaking of the synthetic present Tense, the topic of this dissertation, we saw that it is categorically conveyed by the analytic form estar.PRS + gerund in present-day BP. In the past, however, the picture was different: Until the 19th century, albeit this analytic construction was used, it was peripheral. It is in the plays from the end of the 19th century that one sees contemporary BP grammar arising: Present Tense is chiefly conveyed by estar + gerund.

As for the position of the analytic present Tense, our data suggested that estar.PRS in estar + gerund has never moved higher than $j\acute{a}$ 'already' (but cf. Corôa 2022: §7.2.1), and $n\~{a}o$ 'not'. In the diachronic sample, I also attested to movement to a higher position than quase 'almost'. The results from this chapter depict one single scenario in the diachrony of BP:

(273) a. **BP prior to the 19th century** $estar. PRS \text{ in the analytic present} \rightarrow \text{movement to T-field: YES}$ $\rightarrow \text{temporal interpretation: YES}$ b. **BP after the 19th century** $estar. PRS \text{ in the analytic present} \rightarrow \text{movement to T-field: YES}$ $\rightarrow \text{temporal interpretation: YES}$

In the next Chapter, I formalise the diachronic picture on the change of the expression of the present Tense in BP that I have attested to so far, based on the Parameter Hierarchy approach.

5 From Synthetic to Analytic: a Parameter Hierarchy Approach

Introduction

In the preceding chapters, I showed that a big change took place in BP. The data in Figure 3.4/Chapter 3 suggest that before the end of the 19th century, BP speakers conveyed present Tense interpretation *via* synthetic lexical verbs; after that period, the synthetic lost ground to the analytic form *estar*.PRS + gerund, which was already in the system, as I presented in Figure 4.4/Chapter 4. These results from both structures combined, *viz*. analytic and synthetic present Tense, give rise to a dramatic shift from a system that conveys present Tense primarily by synthetic forms to one conveying it by analytic means. In other words, an analiticisation process is witnessed. Figure 5.1 and Table 5.1 present the comparative results.

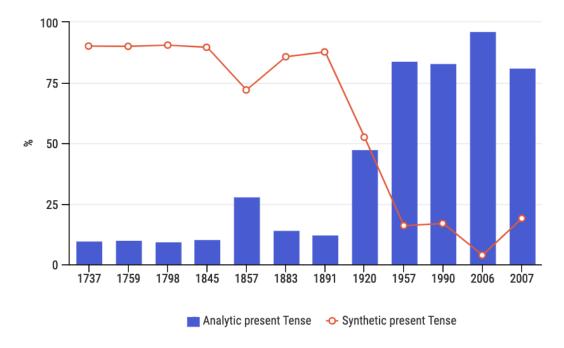
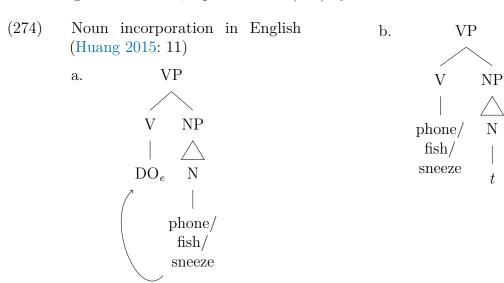


Figure 5.1: Distribution of analytic versus synthetic forms to convey present Tense from 18th- to 21st-century BP.

Centuries/	Present Tense			
Year	estar	r.prs + gerund	Synt	hetic Form
18/1733	12	9.9%	109	90.1%
18/1737	18	10.0%	162	90.0%
19/1833	2	9.5%	19	90.5%
19/1845	7	10.4%	60	89.6%
19/1857	26	28.0%	67	72.0%
19/1883	3	14.3%	18	85.7%
19/1891	8	12.3%	57	87.7%
20/1920	56	47.5%	62	52.5%
20/1957	63	84.0%	12	16.0%
20/1990	54	83.1%	11	16.9%
21/2006	127	96.2%	5	3.8%
21/2007	17	81.0%	4	19.0%

Table 5.1: Distribution of analytic versus synthetic forms to convey present Tense from 18th- to 21st-century BP.

Under the Generative Grammar approach, some authors consider analyticisation to be associated with verb movement. In comparing English and Modern Chinese, Huang (2015: 4) notes that to convey simple eventualities such as to phone, to fish, and to sneeze, the latter language exhibits a light verb da 'hit' preceding the nominal-verbal shared roots dianhua 'telephone', yu 'fish', and penti 'sneeze' (e.g. CH da yu 'lit. hit fish', da penti 'lit. hit sneeze', da dianhua 'lit. hit telephone'). Contrastingly, English does not display the morphophonological realisation of this light verb and conveys the same eventuality in a single item. Based on that, Huang (2015: 10–1) proposes that English verbs are formed via noun incorporation, where a noun head moves to a verb head (274), whereas, in Modern Chinese, this incorporation is not licensed given the presence of the light verb da 'hit' lexicalising the verb head, represented in (275) by the red dashed.



(275) Noun incorporation in Chinese (Huang 2015: 11)

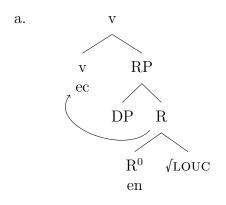


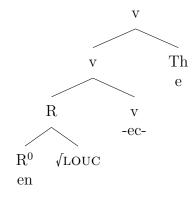
Another structure that BP speakers have widely used is parasynthetic verbs (276). Under Distributed Morphology (Halle & Marantz 1993), Carvalho & Bassani (2021: 69–70) suggest that a derivation for a parasynthetic verb like enlouquecer 'become mad' involves short movements to linearise a structure where R^0 must precede the root, which in turn precedes the verbaliser, and finally, the Theme Vowel, after being post-syntactically inserted. The derivation of enlouquecer is in (277-a) and (277-b), before and after movements. Contrarily, in the derivation of the analytic ficar louco 'become mad', the root of 'louco' is categorised by an adjective a and the structure does not undergo movement, represented in (278) by the red dashed, because of the presence of the light verb ficar 'become' in v. In summary, while the parasynthetic verb is generated by movement, the analytic is not.

b.

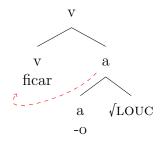
- (276) a. en.fraqu.e.ce.r versus ficar fraco PREF.weak.TV.SUFFIX.INF become weak 'weaken versus become weak'
 - b. a.maci.a.r versus ficar macio PREF.soft.TV.INF become soft 'weaken versus become weak'

(277) (Carvalho & Bassani 2021: 69)



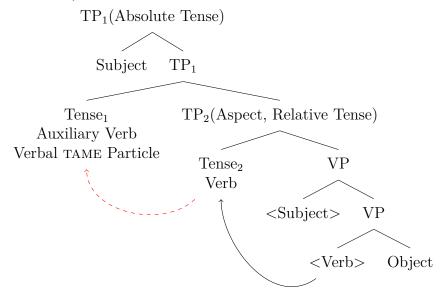


(278) (Adapted from Carvalho & Bassani 2021: 70)



The same generalisation could be made for the temporal domain: Whereas syntheticity displays movement, viz. verb movement, analyticity blocks it. Reintges & Cyrino (2018: 182–3) notes that inasmuch as auxiliary verbs and particles are either directly merged or moved to TP (Roberts 1992a: 226, Cinque 1999: 58, 188 – Note 16, Roberts & Roussou 2003: 45, D'Alessandro & Roberts 2008: 481, D'Alessandro & Ledgeway 2010: 336, Biberauer & Roberts 2012: 275 – Note 5, 278, Harwood 2013: 33–4, Araújo-Adriano 2019b: 74–5), there is no room for the movement of lexical verbs to the same field, given the presence of some element in TP (279). In this sense, they argue that "analyticization severely restricts the scope of verb movement operations" (Reintges & Cyrino 2018: 183).

(279) Scope of verb movement in an analytic temporal system (Reintges & Cyrino 2018: 183)



Collectively, these studies outline a general pattern that analytic constructions reduce movement given the presence of some element in a higher position. Therefore, one reasonable hypothesis is that the scope of verb movement was also altered in BP after undergoing a verbal analyticisation process. If this hypothesis shows some sort of accuracy, one should then confront two periods in BP diachrony: Period I, with synthetic tendencies, where lexical verbs moved to a high position, and Period II, where the scope of verb

movement is limited, mimicking the prototypical property of an analytic language, viz. reduced (verb) movement.

If one wants to get empirical evidence that bears on the truth of this hypothesis, it is necessary to pursue a diachronic investigation on a previous synthetic tendency language to a subsequent analytic tendency language. I did this in the preceding chapters of this dissertation, more specifically in Chapters 3 and 4.

I showed that until the end of the 19th century, the auxiliary estar.PRS and synthetic present Tense lexical verbs behaved similarly: Albeit the former was narrowly used by speakers, both had temporal interpretations, amongst others, and moved to a higher position to precede certain adverbs. I also pointed out that this behaviour, where both lexical and auxiliary verbs move higher and trigger temporal interpretation, was not exclusive of the analytic/synthetic present Tense.

From the end of the 19th century, lexical verbs lost not only verb movement to a high position, moving now as high as *obrigatoriamente* 'obligatorily', but also their temporal interpretation: They do not convey Tense, but an Aspect interpretation. In the case of *present Tense*, synthetic verbs started to trigger only durative, generic, and habitual Aspect. From then to now, auxiliary verbs abruptly increased in usage, continuing to trigger temporal interpretation as well as moving to the T-field. Hence, from the end of the 19th century, the comedy plays I analysed manifest a grammar of present-day BP. Combined, Periods I and II can be visualised as follows.

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(280) \hspace{0.2in} a. \hspace{0.2in} BP \hspace{0.2in} prior \hspace{0.2in} to \hspace{0.2in} the \hspace{0.2in} 19th \hspace{0.2in} century \\ \hspace{0.2in} Lexical \hspace{0.2in} Verbs \hspace{0.2in} \rightarrow \hspace{0.2in} Movement \hspace{0.2in} to \hspace{0.2in} T-field: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} b. \hspace{0.2in} BP \hspace{0.2in} after \hspace{0.2in} the \hspace{0.2in} 19th \hspace{0.2in} century \\ \hspace{0.2in} Lexical \hspace{0.2in} Verbs \hspace{0.2in} \rightarrow \hspace{0.2in} movement \hspace{0.2in} to \hspace{0.2in} T-field: \hspace{0.2in} NO \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} NO \\ \hspace{0.2in} Auxiliary \hspace{0.2in} Verbs \hspace{0.2in} \rightarrow \hspace{0.2in} movement \hspace{0.2in} to \hspace{0.2in} T-field: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in} Temporal \hspace{0.2in} interpretation: \hspace{0.2in} YES \\ \hspace{0.2in} \rightarrow \hspace{0.2in}
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In this chapter, based on Huang's (2015) and Reintges & Cyrino's (2018) proposal that analyticisation prevents verb movement, I present an explanatory proposal for the change that BP underwent, from Period I to Period II, that is, from synthetic to analytic. In Section 5.1, I explore some hypotheses that could have triggered BP children to change from one system to another from the end of the 19th century. Thereafter, in Section 5.2, I present two proposals regarding verb movement. One has to do with paradigmatic instantiation of TAM (Schifano 2018) and the other with repairing unstable structures (Moro & Roberts 2021). Thereafter, regardless of the proposal, I raise and explore a hypothesis that accounts for why auxiliary verbs move higher than lexical verbs. Finally, in Section 5.3, I present my proposal that the change from a synthetic (Chapter 3) to an analytic present Tense language (Chapter 4) was a change from meso- to microparameter in BP, under the Parameter Hierarchy approach.

5.1 Some Hypotheses on the Actuation of the Change from Synthetic to Analytic

In this section, I briefly discuss two hypotheses for the trigger of the change I have attested to so far. The motivation for a linguistic change is not always clear. We just need to check Part I of *The Cambridge Handbook of Historical Syntax* (Ledgeway & Roberts 2017) to realise there are numerous types of mechanisms of syntactic change. As we have seen, the change from a synthetic to an analytic tendency system could have happened at any time in BP history, given that both analytic and synthetic constructions were positive evidence for the BP children. However, it was in the late-19th-century plays that we see a reflex of the contemporary BP grammar. Why in the 19th century? Why not early or later? These why-questions are dated, known as the *actuation problem*:

What factors can account for the actuation of changes? Why do changes in a structural feature take place in a particular language at a given time, but not in other languages with the same feature, or in the same language at other times? (Weinreich et al. 1968: 102)

As we saw in Chapter 1, one of the computational efficiency language acquisition mechanisms is Feature Economy (Roberts & Roussou 2003: 201), where there is an acquisition bias that selects the simplest derivation to generate sentences. The complexity of a derivation is associated with the number of features (Roberts 1992b: see also): Between two adequate representations for the input of PLD, choose the one with fewer formal features:

(281) Feature Economy (Roberts & Roussou 2003: 201) Given a pair of adequate structural representations R, R_0 for a substring of input text of the PLD S, choose R iff R has n distinct FFs and R_0 has m > n distinct FFs.

In this way, acquiring a language amounts to selecting the smallest set of features compatible with the PLD. As we will see in the remainder of this Chapter, the presence of a [uT] feature is attributed to the trigger for verb movement in the sense of Schifano (2018). Combined with the loss of verb movement regarding lexical verbs I attested so far, throughout history, children's PLD were ambiguous in terms of the structures that generated a temporal sentence by moving either auxiliaries or lexical verbs. I understand ambiguity here in Roberts's (2017b) sense of Parameter Ambiguity: When a string of well-formed input can be generated by a parameter value that is set or not. In our case, exposed to temporal sentences, children could entertain that moving either auxiliary or lexical verbs could generate a well-formed sentence. Regarding features, T having [uT] features with respect to either auxiliaries or lexical verbs generated temporal well-formed sentences. Hence, a P-ambiguity was instantiated. To solve this ambiguity, a simpler structure is preferred giving rise to a loss of features as a consequence.

Now, assume that synthetic "lexical categories inherently have a richer feature specification than functional ones and lower functional heads (...) have richer feature specification

than higher ones" (Biberauer & Roberts 2017: 147), as Roberts & Roussou (2003) show in regards to several domains, viz. C-system, T-system and D-system. Then, giving that (i) synthetic verbs, by being lexical categories, are more complex than functional auxiliaries and (ii) auxiliaries are base-merged higher in the structure than synthetic verbs, then the actuation problem is solved: The hypothesis is that the change from synthetic to analytic was due to principles of economy, in the sense that generating temporal sentences via auxiliaries is much simpler than via synthetic lexical verbs. In having the option to do so with a simpler structural representation, BP started to entertain a structural representation that was less costly with auxiliary verbs, that is, with elements that not only bear simpler feature specifications but also were closer to the probe element, T. The consequence of that is loss of features, a prototypical consequence of linguistic change (Roberts & Roussou 2003): Lexical verbs lost their temporal features, so much so that they became inert temporally-wise.

Another hypothesis I consider for explaining the trigger for the change from the synthetic to the analytic tendency system in BP concerns language contact. Under the Generative Grammar approach, Roberts (2017b: 236–7) defines contact language as a case where children's PLD, in addition to their natural parent's input (Generation 1), receives a significant amount of strings from a different, "alien grammatical system", in the author's words, triggering a parameter setting different from Generation 1. There are several cases reported where linguistic contact altered the language, morphologically reducing, for example, phenomena such as verbal and nominal agreement, (for cases of structural simplification of different natures in Bantu languages, cf. Bokamba 1993: §2). Within the scope of our dissertation, one of these structurally-induced changes regards analyticisation. Haspelmath & Michaelis (2017), for instance, show a drastic loss of inflectional markers in a creole language based on Germanic and Romance languages, comprising definite articles, number, Case markings, causative constructions, and future and past markers, (Haspelmath & Michaelis 2017: 10–4).

Between the 16th and 19th centuries, during the Brazilian colonial period, historical-demographic data show that Africans were the majority of the population in Brazil (Mussa 2011: 163).

	1583 - 1600	1601 - 1700	1701–1800	1801 - 1850	1851 - 1890
Africans	20%	30%	20%	12%	2%
Afro-descendents	-	20%	21%	19%	13%
Mixed-race	-	10%	19%	34%	42%
Euro-descendants	-	5%	10%	17%	24%
Europeans	30%	25%	22%	14%	17%
Integrated Natives	50%	10%	8%	4%	2%

Table 5.2: Brazilian population between the sixteenth and nineteenth centuries (Adapted from Mussa 2011: 163).

This linguistic contact between the Portuguese spoken in Brazil by Brazilians during

the colonial period and the Bantu languages spoken in Africa probably influenced the course of the language in Brazilian soils (Galves 2008, Negrão & Viotti 2011, Avelar & Galves 2014, Avelar 2019). Based on the presence of Niger-Congo languages in Brazil in remote times, Avelar & Galves (2016: 251) raises the hypothesis that Bantu speakers in acquiring Portuguese "have both transferred properties from their own languages, and missed properties from the target language, mainly the morphological ones". This contact influenced Brazilian speakers in such a way that (Brazilian) "Portuguese became a mixed language" and just did not reinterpret Portuguese as a Bantu language due to "the constant proportion of native Portuguese speakers in the population", as we can see in Table 5.2, "which prevented the second language acquirers and their descendants from completely losing" their prototypical properties. The consequence of this mixed language is the proportion of topical prominence, verbal agreement with the topic, variation in subject-verb conformity, prepositioned subject, Case neutralization between nominative and non-nominative positions, also found in African territory (Avelar & Galves 2016: 238–9).

In this sense, if the hypothesis that the African languages that came into contact with Portuguese in Brazil, in a certain way, triggered morphosyntactic simplification in the language, combined with the idea that language contact triggers analyticisation, the abrupt change by the end of the 19th century in BP, which shifted from a synthetic system to an analytic tendency system, could be naturally explained. Perhaps it was this massive contact that made BP speakers rethink their structural representations and choose a simpler one to derive temporal sentences. Hence, assuming that "Things stay as they are unless a force (including decay) acts upon them", as formulated as the Inertia Principle by Keenan (1998: 3), the contact with African languages disrupted BP speaker's PLD, increasing the ambiguity of their input, finally becoming the force that triggered them to choose a simpler representation over a more complex one, regarding licensing of temporal values. If one wants to prove this hypothesis, it is necessary to find evidence of the languages spoken at the time of contact or to make sure that the African languages spoken today reflect the languages spoken at the time. Since one knows that African languages have a verbal analytic tendency system, the burden of the proof lies in finding evidence that African languages at the time of the colonial period, with which Brazil came into contact, reflect the languages spoken there today.

5.2 Reinterpreting Lexical and Auxiliary Verb Movement

In the previous chapter, I showed that lexical and auxiliary verbs behave differently regarding (i) word order and (ii) temporal interpretation. In present-day BP, (i) whilst lexical verbs move to a very low position in the hierarchy, viz. as high as $\text{Mod}_{\text{Obligation}}^0$, auxiliaries move higher, viz. T_{Anterior}^0 . This pattern, however, has not always been like this, as I showed. Before the 19th century, lexical verbs were used to move high likewise. This difference regarding verb movement follows the capacity of verbs to license temporal

interpretation over time. Before, (ii) when synthetic verbs moved higher, they triggered aspectual but crucially temporal values, as well as auxiliaries. After the 19th century, however, these synthetic lexical verbs lost their Tense integrity, triggering only aspectual flavours. In this section, I account for this loss, arguing that T became temporally inert, losing its T features concerning lexical verbs, thus not probing movement, whilst T maintained temporal values concerning auxiliary verbs.

5.2.1 Triggering Verb Movement: Move to License

The discussion on the contrast between English and French regarding fixed adverbs *viz. often* inflamed the idea that English does not have verb movement (cf. Section 3.2), whereas French, and ultimately the Romance languages, exhibits it. Schifano (2018), however, demonstrates that Romance verbs do not move similarly: They move to different positions. Albeit she precises the *locus* of Romance verbs by using Cinque's (1999) hierarchy, she claims that Romance verbs do not target single positions, *viz.* Mood_{Epistemic}, or Asp_{Durative}, but fields, *viz.* M(ood), T(ense), or A(spect) (Schifano 2018: 134–5). For instance, French and Romanian verbs move high, to the M-field, whilst Spanish and Catalan verbs move to a very low position, the Voice-field.

To account for different targets of verb movement in Romance, Schifano (2018: 136) proposes that verbs move to license TAM interpretation as a syntactic resort when the verbal morphology itself is not enough to convey TAM unambiguously. Thus, two ways to license TAM are the morphological and the syntactic strategy. In the first case, TAM is licensed by dedicated verbal morphology, *i.e.*, morphology itself conveys some TAM interpretation unambiguously by the presence of a synthetic and a non-syncretic paradigm. That is what the author's Paradigmatic Instantiation (PI) stands for (282).

(282) Paradigmatic Instantiation (Schifano 2018: 136)
Mood, Tense, and Aspect are paradigmatically instantiated in the language if their chief values are expressed by synthetic and non-syncretic paradigms.

The other strategy, the syntactic one, licenses TAM by moving the verb to TAM, when there is no dedicated and unambiguous paradigm to license these notions. In the author's words, "verb movement amounts to a narrow syntactic strategy to mark the TAM interpretation of the verb when the relevant category is not already formalised in the system" (Schifano 2018: 137).

One example of how PI is linked to verb movement is the contrast between Italian and Romanian: Albeit in the former, Mood is +PI, that is, it has a synthetic and non-syncretic paradigm for conveying Mood, based on the opposition of realis/irrealis and conditional, the latter does not, since Romanian has the same verbal form for both realis/irrealis in addition to having an analytic paradigm for the conditional. Table 5.3 shows that the Italian verb has a dedicated paradigm to convey realis (indicative), irrealis (subjunctive) and conditional, being syncretic in only one form (1st person, singular); this amounts to saying that morphology by itself expresses Mood.

Subjunctive	Conditional
lavori	lavorerei
tu lavori	lavoreresti
lavori	lavorerebbe
oriamo	lavoreremmo
lavoriate	lavorereste
lavorino	lavorerebbero
	lavori tu lavori lavori oriamo lavoriate

Table 5.3: Italian lavorare 'work' (Schifano 2018: 137).

In Romanian, however, the verbal paradigm is not dedicated to conveying Mood, given that the same verbal form triggers both *realis/irrealis*. Besides, the conditional is not triggered by any synthetic form but rather by an analytic form headed by the auxiliary, as shown in Table 5.4.

Indicative	Subjunctive	Conditional
să lucrez		aș lucra
să lucrezi		ai lucra
lucrează	să lucreze	ar lucra
${f s}{f a}$ luc ${f r}{f a}{f m}$		am lucra
${ m s} reve{ m a}$	lucrați	ați lucra
lucrează	să lucreze	ar lucra

Table 5.4: Romanian *lucra* 'work' (Schifano 2018: 138).

Schifano (2018: 165–6) interprets $\pm PI$ in terms of interpretability of the TAM features: Assuming that v is always interpretable for T, A, and M, hence always [iT], [iA], and [iM], if the functional projection is +PI, she argues, it will bear [iT], [iA], and [iM] as well. Contrarily, if it is -PI, it will bear [uT], [uA], [uM]. Given that uninterpretable features must be deleted as soon as possible to be eligible in the interfaces (Chomsky 1995b: 219–348), the only way to delete [uT], [uA], and [uM] created by the probes T, A, or M is by a checking relation with the goal v via the operation Move. In this way, when the probes have corresponding interpretable features with v, this goal does not move: Movement, then, is only triggered in the case where M, T, or A bear an [uF], given that v is always [iF], as proposed by Schifano (2018: 156).

(283) a.
$$[\alpha]_{+PI} = [iF]$$
, hence no movement of $v_{[i\alpha]}$
b. $[\alpha]_{-PI} = [uF]$, hence movement of $v_{[i\alpha]}$

Now, consider again the typology proposed by the author concerning Mood in Italian and Romanian. In the former, Mood is +PI, then [iM], but both Tense and Aspect are -PI, that is, [uT] and [uA] (cf. Table 5.3). This means that the verb in Italian does not need to move to the Mood field but has to move to the Tense and Aspect fields to delete their

uninterpretable features. On the contrary, in Romanian, Mood (and also Aspect and Tense) is —PI (cf. Table 5.4), hence [uM], forcing the licensing of TAM syntactically: The verb has to move to the highest field.

Thus, Schifano's (2018) main point is that children have enough clues when their TAM is (un)interpretable via PI: If in their PLD (Primary Linguistic Data) there are significant unambiguous structures (+PI), they can assume the absence of verb movement by positing an interpretable feature. The PLD being primarily ambiguous (-PI), however, the only way to licence TAM features is by moving the verb to its semantically related position, positing an uninterpretable feature. In the author's words:

When the learner has to identify the value of formal features, i.e. uninterpretable or interpretable in our case, she associates interpretability with strong instantiation (hence salience) of the category in the verb paradigm. (Schifano 2018: 168)

That is, children will posit an (un)interpretable feature, consequently facing the presence/absence of verb movement, depending upon their PLD: They have evidence that the verb moves to some TAM-field if they are exposed to synthetic and non-syncretic paradigms. Children then decide whether their language is $\pm PI$ by comparing minimal pairs of the same category.

This pairing of presence/absence of feature with $\pm PI$ is quite in line with the idea that the saliency in the data leads the child to assign a parameter setting, which somehow recalls the notion of Trigger, and FF-expression, repeated below (cf. Section 1.3.2). Hence, in Schifano's (2018) approach, a learner will move the verb in their language because they will postulate the [i] feature for some TAM category by exposure to a +PI paradigm.

- i. FF-expression: A substring of the input text of the PLD S expresses FF_i just in case an FF_i must be present in order to assign a well-formed representation to S.
- ii. Trigger: A substring of the input text of the PLD S is a trigger for an optional FF_i if S expresses FF_i.

Elaborating on Schifano (2018), I propose that any syncretic paradigm must trigger verb movement, even in analytic constructions. More specifically, the hypothesis is that if children need to pair formal morphosyntactic features with functional heads, any substring of input that is ambiguous must be overtly moved to the semantically related position, regardless of whether it is analytic or not. In what follows, I revisit what has already been presented previously, that auxiliary verb constructions in BP are syncretic across Tense and Aspect: The exact analytic paradigm can work as a clue for children for both TA interpretations, leaving the movement of the verb as the only way to disambiguate this TA interpretation. Additionally, the non-movement of auxiliary verbs to a higher position is also accounted for because Mood is non-syncretic; that is, it has dedicated, unambiguous structures. Contrary to auxiliary verbs, as I showed, (synthetic) lexical verbs in BP are temporally inert, given that they no longer trigger temporal values but only

aspectual ones⁹⁵. Hence, since they lost a T feature but still have an A feature, they do not demand to move to T, but only to A. The hypothesis, then, is that the absence of temporal interpretation amounts to the absence of movement to the field that licenses temporal values, *viz.* T.

The claim advanced here is that, despite being analytic, the trigger of auxiliary verb movement, at least in BP, also relies on the idea that the interpretable versus uninterpretable features are salient in the presence of a non-syncretic paradigm. This amounts to saying that in BP, in which the analyticisation process is in a more advanced state, as I showed in Chapter 4, syncretism versus non-syncretism might determine where the auxiliary must move to, not whether the paradigm is synthetic or not – which clearly it is not, as I presented in Table 4.7, repeated below in Table 5.5. So much so that, if $\pm PI$ were analysed in terms of a paradigm being synthetic in a highly analytic language akin to BP, this would wrongly predict that Mood, Tense, and Aspect would be -PI, displaying high verb movement, as in Romanian⁹⁶ (contrary to the fact, as I suggested in Chapter 4, that auxiliaries only move $T_{Anterior}$, or, in Schifano's (2018) sense, T-field, but not higher).

Mode	Tense	Synthetic Form	Analytic Form
	Present	eu acordo	eu estou acordando eu tenho acordado
	$Past_{Perfect}$	eu acordei	('tinha acordado)
Indicative	$Past_{Imperfect}$	eu acordava	eu estava acordando
	$Past_{Plus-perfect}$	eu acordara	eu tinha acordado
	$Future_{Present}$	eu acordarei	eu vou acordar
	Conditional	eu acordaria	eu ia acordar
	Present	que eu acorde	que eu vá/vou acordar
Subjunctive	Past	se eu acordasse	se eu fosse acordar
v	Future	quando eu acordar	quando eu for acordar
Imperative	$Imperative_{A firmative}$	acorde!	vá/vai acordar! esteja acordado!
	$Imperative_{Negative}$	não acorde!	não vá/vai acordar!

Table 5.5: BP Verbal Paradigm.

In the rest of this section, I will argue that the BP verb paradigm is syncretic in Schifano's (2018) sense for it is highly analytic, but this property cannot be the whole story explaining the triggering or not verb movement; actually, this alone would wrongly

 $^{^{95}}$ It is worth noting that the ungrammaticality of *viajo ontem 'travel.PRS yesterday', *fizera amanhã 'do.PTCP tomorrow' and *quererei ontem 'want.FUT yesterday' might be accounted for in terms of the mismatch between the internal properties of time adverbs, in the vein of Demirdache & Uribe-Etxebarria (2004), and the verb morphology. Hence, although the morphology itself lost temporal interpretations, some matching between time adverbs and verb morphology must be met.

⁹⁶See Schifano's (2018) for Romanian.

predict verb height movement.

PI of Mood in a Highly Analytic Language

I start with Mood, by its chief values⁹⁷ of Indicative, Subjunctive, and Conditional. Albeit in theory, there would be a synthetic and non-syncretic paradigm, leading to +PI for Mood, as noted by Schifano (2018: 180) (cf. Table 5.6), she suggests that Mood in BP is actually -PI, considering that the indicative/subjunctive is being neutralised. Schifano's (2018) example in (284) shows this neutralisation, where the indicative forms have been replacing the subjunctive.

(284) (Schifano 2018: 181–2)

- a. A gente quer que vocês **vêm** jantar lá em casa amanhã. the people want that you come.IND dine there in house tomorrow 'We want you to come and have dinner at our place tomorrow.' (see standard venham 'you.come.SBJV')
- b. **Entrega** esse envelope para a secretária e depois give.IMP(IND) this envelope to the secretary and then **vem** aqui de novo que eu preciso falar com você. come.IMP(IND) here of again that I need speak with you 'Give this envelope to the secretary and then come back here for I need to talk to you.' (see standard entregue ... venha 'give.IMP(IND).2SG ... come.IMP(IND).2SG')

Indicative	Subjunctive	Conditional
falo	fale	falaria
fala	fale	falaria
falamos	falemos	falaríamos
falam	falem	$\operatorname{falariam}$

Table 5.6: BP PI of Mood: falar 'speak' (Schifano 2018: 180).

As discussed throughout this dissertation, however, BP is in a highly advanced state of making use of analytic structures, with auxiliary verbs, instead of their synthetic equivalents. Hence, contrasting those synthetic forms in Table 5.6 might be ineffective for a language like BP (contrarily, cf. Table 5.7). In this way, concerning Mood, the periphrasis headed by ir.SBJV + infinitive has gained ground to convey subjunctive, as the data below suggest (cf. also (170–172)), where the standard subjunctive venha 'come.SBJV' and consiga 'can.SBJV' is replaced by $v\acute{a}$ vir 'lit. go.SBJV come.INF' and $v\acute{a}$ conseguir 'lit. go.SBJV make.INF'.

⁹⁷These are the chief values for Mood because "the indicative and subjunctive codify the *realis-irrealis* distinction, while the conditional codifies the conditional modality" (Schifano 2018: 140).

(285) a. é, 365 dias de luta na esperança de que **vá** vir 365 dias be 365 days of fight in-the hope of that go.SBJV come.INF 365 days de glória, vem 2020.

of glory come 2020

'Yeah, 365 days of fighting, hoping that 365 days of glory will come, welcome 2020.'

(2019/21 - Twitter)

b. pensando aqui q talvez depois de tudo isso eu não **vá** conseguir thinking here that maybe after of all this I not go.SBJV make.INF me sentir confortável com alguém por um bom tempo outra vez. me feel comfortable with someone for a good time other time 'I am thinking here that maybe, after all of this, I will not be able to feel comfortable with someone else for a long time again.'

(2022/21 - Twitter)

Alongside the subjunctive, the synthetic conditional has also been replaced by an analytic construction headed by *ir*.IPFV + infinitive. In the following examples (cf. also (165)), *federia* 'smell.COND' and *ficariam* 'be.COND,' the standard conditional, have been losing ground to *ia feder* 'lit. go.PST.IPFV smell.INF' and *iam ficar* 'lit. go.PST.IPFV be.INF'.

- (286) a. Aquela maçã ia feder, se eu não tivesse jogado ela fora. that apple go.COND stink.INF if I not had thrown her away 'That apple would stink if I hadn't thrown it away.'
 - b. Se eu não fosse aceitar o emprego, meus pais **iam** ficar me if I not be accept the job my parents go.COND stay.INF me enchendo a paciência. filling the patience 'If I did not accept the job, my parents would keep badgering me.'

Observing the indicative, whose paradigms Schifano (2018: 140) considers the present, that is, "the case where the time points coincide", 98 I also showed that the synthetic present Tense, used in Table 5.6 as a matter of comparison, does not convey present Tense (e.g., *Chove. 'It rains'). Instead, the analytic construction headed by estar.PRS + gerund is the default to trigger present Tense interpretation (e.g. Está chovendo 'It is raining'). Thus, albeit analytic structures dominate, distinctions among different Mood interpretations are achieved non-syncrectically (cf. Table 5.7); that is, the contrast between realis/irrealis and declarative/conditional is not ambiguous – each subpart of Mood, although analytic, has its own dedicated paradigm, which makes it reasonable to claim that in BP Mood is somehow +PI as well.

⁹⁸The full passage: "I shall consider present paradigms only, following Cinque's (1999:81–3, 129) analysis of the markedness of tenses, whereby the case where the time points coincide, i.e. present, represents the default value and that where they do not, cf. past, future and anterior forms, the marked value" (Schifano 2018: 140).

Indicative	Subjunctive	Conditional
estou tocando	vá tocar	ia tocar
está tocando	vá tocar	ia tocar
estamos tocando	vamos tocar	íamos tocar
estão tocando	vão tocar	iam tocar

Table 5.7: BP PI of Mood: tocar 'play'.

PI of Tense in a Highly Analytic Language

As for Tense, represented by the chief values of present and past, Schifano (2018: 183) shows that this category in Brazilian Portuguese is *prima facie* syncretic because there would be a synthetic morphology dedicated to expressing both present and past Tense. However, she suggests that *ter* 'have' + participle has been replacing the synthetic form (287). About this, she claims that *ter*.PRS + participle in *tem visto* "seems to be gradually losing its marked aspectual value and gaining ground over the synthetic form (...) where no implication of durativity or repetition is required to elicit the compound forms" (Schifano 2018: 183). This leads her to say that Tense is —PI (cf. Table 5.8).

Present	Past simple
falo	falei (tem visto)
fala	falou (tem visto)
falam	os (tínhamos visto)
falam	falaram (tinham visto)

Table 5.8: BP falar 'speak' (adapted from Schifano 2018: 183).

(287) Tem visto Maria nestes últimos dias? you seen M. in.these last days 'Have you seen M. lately?'

(Kahane & Hurriet 1953: 20 apud Schifano 2018: 183)

Note that Schifano (2018: 183) bases her analysis on research conducted by Kahane & Hurriet (1953). Recent research has suggested, however, that ter.PRS + participle has not been losing ground over its durative aspectual value. Regarding the usage of ter.PRS + participle, Mendes (2005: 174), for instance, concludes that "ter + participle is more frequent in the composition of the iterative." This reading in present-day BP is also supported in Wachowicz (2006: 64), who recognises that three are the periphrases that convey duration and iterative interpretation, have.PRS included:

"The sentences in (1), repeated in (15), still keep the duration, homogeneity readings, but also have an iterative interpretation:

(15) a. Os policiais vêm enfrentando problemas no trânsito.

- b. Marta tem pagado contas em dia.
- c. A medicina está encontrando vírus diferentes todos os dias."99

(Wachowicz 2006: 64)

With this in mind, although in some varieties ter.PRS + participle might be still in the process of "gaining ground over the synthetic form" (Schifano 2018: 183), I argue instead that the existence of an analytic construction (that is not well established in the grammar) might not be enough to play a role in the strength of PI in a highly analytical language like BP.

As previously stated, an action simultaneous to the utterance, that is, where "the time points coincide" (Schifano 2018: 140), is no longer conveyed by the synthetic present Tense in BP; instead, the same idea is encoded in an analytic construction headed by the auxiliary estar 'be.PRS' + present gerund (cf. (288), but also Chapter 4). Then, Table 5.9 should replace Table 5.8. In this case, under Schifano's (2018) strict approach, Tense in BP would still be -PI, given the analytic paradigm of the present, and arguably of the past simple as well, as discussed in Section 3.1, in the case of ter.PST.IPFV + participle.

Present	Past simple
estou falando	falei (tinha falado)
está falando	falou (tinha falado)
estamos falando	falamos (tínhamos falado)
estão falando	falaram (tinham falado)

Table 5.9: Brazilian Portuguese falar 'speak'.

I suggest, on the contrary, that Tense in BP is indeed —PI, but for other reasons: The hypothesis is that structures dedicated to conveying Tense, that is, auxiliary constructions, are not devoted to the expression of Tense, because they trigger both Tense and Aspect, hence —PI for Tense (and even for Aspect); in this way, neither Tense nor Aspect has a dedicated structure to convey their main chief values. Movement, then, is required to disambiguate them. I now explore this idea, as I have already shown in Section 4.1 that exposure to the paradigm that triggers Tense is not enough for children to entertain features regarding this value because the same paradigm is committed to triggering other nuances: viz. Aspect.

The analytic present Tense conveys not only (present) Tense but also (habitual/durative) Aspect (288). Therefore, we see that the structure *estar*.PRS + gerund in the PLD is not enough to trigger neither Tense nor Aspect interpretation for the child since it is ambiguous and syncretic (cf. also (150), and Chapter 3).

⁹⁹ From the original "As sentenças em (1), repetidas em (15), ainda mantêm as leituras de duração e homogeneidade, mas têm também interpretação iterativa:

⁽¹⁵⁾ a. Os policiais vêm enfrentando problemas no trânsito.

b. Marta tem pagado contas em dia.

c. A medicina está encontrando vírus diferentes todos os dias".

(288) A Maria está indo dormir cedo. the M. be.PRS go.GER sleep.INF early 'M. is going to bed early.' 'M. has been going to bed early.'

As for the future Tense, the analytic ir.PRS + infinitive triggers future Tense but also a (prospective) Aspect interpretation, as in (289-b); that is, it also conveys an action that is about to happen immediately after speech (cf. also 3). In this sense, being exposed to ir.PRS + infinitive is not enough for children to straightforwardly pair the structure with a TA interpretation.

- (289) a. No próximo verão eu **vou** cozinhar muita comida fresca. in-the next summer I go.PRS cook.INF many food fresh 'Next summer, I will cook a lot of fresh food.'
 - b. Desculpa, eu **vou** espirrar. sorry I go.prs sneeze.inf 'Sorry, I will sneeze.'

The plus-perfect, conveyed by the analytic form ter.IPFV 'have.PST.IPFV' + participle, is another ambiguous paradigm. As I discussed in Section 4.1, this structure is primarily used to convey the aspectual idea of the plus-perfect (290-a) but can also convey past Tense (290-b)-(290-c). Then, it is reasonable to claim that ter.IPFV + participle is in a certain way ambiguous, triggering both temporal and aspectual interpretations.

- (290) a. Quando a mãe chegou, a gritaria já **tinha** acabado. when the mom arrived the shouting already have.IPFV end.PRT 'When mom arrived, the shouting had already stopped.'
 - b. Você **tinha** reparado que ela ficou te olhando torto? you have.IPFV notice.PRT that she stayed you looking crooked 'Did you notice that she was looking daggers at you?'
 - c. As desinformados, o Arthur **tinha** conversado ontem que to-the uninformed, the A. have.IPFV talk.PRT yesterday that não tinha interesse em atender o big fone. not had interest in answering the big phone 'To the uninformed, A. **said** yesterday that he had no interest in answering the big phone.'

(2022/21 - Twitter)

I conclude, then, that Tense in BP is not +PI, that is, it is not inherently licensed by the presence of a dedicated paradigm, because no structure that conveys Tense, the one headed by estar.PRS, ter.IPFV, and ir.PRS, is dedicated to conveying only Tense. This amounts to saying that their morphology is ambiguous for the child. Therefore, since the main point of language acquisition resides in the identification of formal features (cf. Biberauer et al. 2014b), in the present case [M], [A], and [T] (Schifano 2018: 156), the hypothesis is that BP learners will posit -PI for Tense, by being exposed to the opaque

paradigm of auxiliary constructions – the basis of their verb paradigm –, which not only triggers Tense but also Aspect.

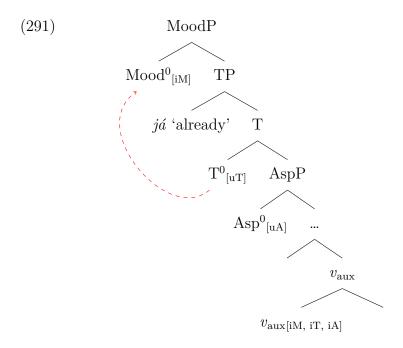
In Chapter 4, we saw that auxiliary verbs in PB must end up in T. Under the present approach, this naturally correlates to Tense being syncretic, [uT], because the paradigm that triggers Tense is not unambiguous to children, and hence the only way to license T_{Anterior} is via movement.

Adopting Schifano's (2018) idea that the verb moves to fields in TAM, not to any specific projection, we can understand why auxiliary verbs do not pass over $j\acute{a}$ 'already': Exposed to the paradigm in Table 5.7, a BP child has unmistakable evidence that those structures, although analytic, straightforwardly trigger a Mood interpretation, hence +PI, and consequently, an interpretable feature [iM]. Then, the typical pattern found, in which all auxiliary verbs move to T, amounts to saying that Tense in BP is -PI since the verbs that convey Tense do not directly trigger a Tense interpretation, hence the [uT]. Then, the only way to license Tense and disambiguate the dyad Tense/Aspect is via verb movement, a syntactic strategy.

PI of Aspect in a Highly Analytic Language

Given the Head Movement Constraint (Travis 1984), I am led to say that Aspect is also —PI in BP; that is, if auxiliaries that head analytic constructions move to T, they must also move to Asp. However, this is not merely a theory-internal consequence. We saw that the same paradigm triggers not only Tense but also Aspectual interpretation. Hence, since being exposed to analytic constructions does not directly trigger the presence of an Aspectual interpretation to BP children, but an ambiguous one — Aspect and Tense, a syncretic paradigm ([uA]) —, the hypothesis is that verb movement is also responsible for licensing Aspect. Thus, we have the following scenario in the Brazilian Portuguese clausal structure, where the red dashed represents the absence of movement 100:

 $^{^{100}}$ As I mentioned before, the movement represented by the red dashed might have occurred in the 17th and even in the 18th century, according to Corôa (2022: 327). Albeit in the 18th century the author attested auxiliaries preceding $j\acute{a}$, suggesting a higher movement, the author claims that this might be a case of grammar in competition, where the higher movement mimics the Classic Portuguese, at the same time that the pre-verbal position of $j\acute{a}$ in the 18th century already represents the BP grammar.



The analysis proposed naturally correlates with the fact that some adverbs cannot follow the non-finite verbs, viz. quase, as in (292-a), at the same time that certain adverbs must follow it, viz. \grave{a} toa, as in (237-b), repeated in (292-b). To be deleted, the [uA] of Aspect forces the movement of $v_{\rm aux}$ to the Asp-field.

(292)(*quase) tava depois de tanta pressão, o $r\acute{e}u$ (quase) after of many pressure the defendant be.PST.IPFV almost confessando (*quase) o crime.confess.GER the crime 'After so much pressure, the defendant was almost confessing the crime.' João (*à.toa) está (*à.toa) malhando (à.toa): ele não vai J. be.PRS work.GER.out (in.vain) he not go.PRS forte. ficar stay.INF strong 'J. is working out in vain. He will not become strong.'

Given that both the auxiliary and the non-finite verb must precede quase 'almost', for instance, it is not the auxiliary alone that moves to Asp, but $v_{\text{aux}} + V$. At a certain point in the derivation, thus, the hypothesis is that the non-finite verb is stranded in the Asp-field (arguably because non-finite verbs have no Tense feature), and the auxiliary solely moves to T to delete [uT] of Tense (293), a case of head-movement proper.

(293) [M-field[T-field já
$$[T_0 \ v \ aux_j]$$
[Asp-field quase $[t_j \ [Prog_0 \ v-V]]_i$ [à toa]] $[vP_{prog} \ t_i]$]]

In this respect, auxiliaries and the non-finite domain would not work as a single constituent, *i.e.*, their relationship would be loose: They start the derivation contiguous (and they might be spelt out contiguously, in the absence of adverbs or other elements),

but their internal structure is disjointed. This hypothesis straightforwardly accounts for the slot between Aux-V, psycholinguistically processed as not tight, where emphatic subjects, clitics, and a negation could be inserted, as discussed in Section 4.2.

Having discussed how the position of BP auxiliary is generated, the following sections explore a hypothesis that lexical verbs do not move because they are temporally inert.

Only Move to License, Otherwise...

Unlike auxiliaries, BP lexical verbs instantiate a case of very low movement; this low movement is unexpected under Schifano's (2018) proposal. This is so because in her analysis, Mood, Tense, and Aspect have a weak degree of PI, given that these categories in BP are not morphologically encoded in the verb (cf. Schifano 2018: 179–183). To account for this unexpected behaviour, the author proposes that the reorganisation of the pronominal system and the reduction of the person and number distinction in the verbal inflection, amply attested in the literature (cf. Schifano 2018: 184–6, and references therein), are somehow linked to BP verb movement.

The main limitation of this account, however, is that it correlates person/number marking to verb movement, a parallel for which there seem to be many counter-examples. One of them is the case of the French. Biberauer & Roberts (2010: 264–5) show that, though French is a language with poor agreement marking, not a null-subject language, it exhibits (high) verb movement, as shown by Schifano (2018). Additionally, this association between the verbal agreement to verb movement ends up missing "the potential relevance of another independently required property of T, namely its Tense features" (Biberauer & Roberts 2010: 265), weakening any TAM approach to verb movement, even the one envisaged by Schifano (2018).

Now, if verb movement in BP is naturally connected to licensing of temporal/aspectual values, as Cyrino (2013) suggests, then I could account for why lexical verbs in BP (now) stop movement at lower positions but used to move higher. The hypothesis is that they no longer move to T because the tense features were lost, *i.e.*, Tense became inert concerning lexical verbs¹⁰¹ (but crucially, not auxiliary verbs). The inertness of T regarding lexical verbs in BP can be entertained due to the absence of temporal interpretation in all synthetic verbs in children's PLD, which I revisit below.

In the previous sections, I showed that synthetic Tenses in BP lost temporal interpretation when I discussed plus-perfect past, imperfective past, future, and present Tense. The remnants of these synthetic verbs are either in some crystallised expressions or trigger only some aspectual flavours, and no longer express a temporal interpretation.

Absence of Simple Past Interpretation

Regarding synthetic Tenses in BP, Cyrino (2013: 311–3) argued that lexical verbs move only to some AspP, TP₂ drawing upon Giorgi & Pianesi (1997), but not to TP (Giorgi & Pianesi's 1997 TP₁). Amongst other pieces of evidence pointing to the position of the verb, the author shows that synthetic past Tense morphology lost its temporal interpretation

¹⁰¹On the inertness of T in the southern varieties of Romance, cf. Ledgeway (2020: 52–4).

because it now conveys only aspect: "in the case of pretérito perfeito, an original feature specification [+PAST, +PERFECTIVE ASPECT] is reduced to an [+PERFECTIVE] aspectual form", which amounts to saying that the synthetic past Tense "does not convey temporal, but aspectual reference" (Cyrino 2013: 314). In this sense, albeit *faltou* 'miss.PST' is morphologically in the past, the interpretation is not exclusively that of the past (294): The party might not be over, there is no beer, and that situation will not change.

(294) Só **faltou** cerveja nesta festa! only lack.PST beer in-this party 'Only beer was missing in this party.' 'Only beer is missing in this party.'

(Cyrino 2013: 313)

Another piece of evidence supporting the claim that synthetic past Tense lost temporal interpretation comes from (295). We see that BP speakers also use the synthetic past Tense to convey some sort of resultative aspect: The verbs in the synthetic Tense do not convey any past temporal interpretation. Additionally, I also found cases where the synthetic past Tense had an interpretation of plus-perfect (cf. Section 4.1), repeated here in (296). Combined, they suggest that the temporal interpretation of synthetic past verbs has been lost.

- (295) a. **Cansei!** tire.PST 'I'm tired'.
 - b. Caguei para você.
 shit.PST to you
 'I don't care about you.'
 - c. Não dá para fazer o molho, porque o tomate **estragou**. no give.PRS to do.INF the sauce because the tomato spoil.PST 'It is not possible to cook the sauce, because the tomatoes are spoiled.'
- (296) Gent meu pai cimentou aqui em frente a porta aí ele tinha guys my father cement.PST here in front the door then he have.PST.IPFV falado ontem q não era pra pisar.

 say.PTCP yesterday that no be.PST.IPFV to step.INF
 'Guys, my dad concreted here in front of the door, and he said yesterday that we weren't supposed to step on it.' (= ele falou ontem 'he say.PST yesterday')

 (2018/21 Twitter)

Absence of Past Imperfect Interpretation

We also see that the synthetic imperfect in BP does not necessarily trigger an imperfect interpretation. In (297-a), the person is still in the restaurant, and there *is* still pizza on the menu, although the lexical verb is in the imperfective morphology. The same thing happens in (297-b), where the cellphone still has the feature of taking screenshots, although the verb is used in the imperfective past Tense.

- (297) a. Tu viu que **tinha** pizza no menu? you see.PST that have.PST.IPFV pizza in-the menu 'Did you see that there is pizza in the menu?'
 - b. Nossa, não sabia que meu celular **tirava**wow, not know.PST.IPFV that my cellphone take.PST.IPFV
 print-screen.
 screen-shot
 'Wow, I didn't know my cellphone takes screenshots.'

Absence of Future Interpretation

As for lexical synthetic future verbs, I showed in Section 4.1 that they disappeared in BP at the end of the 19th century, and their remnants today do not convey futurity: They became crystallised in expressions such as *será* 'be.FUT' (298-a), and some fixed expressions (298-b), illustrated in (298-a) (Araújo-Adriano & Coelho 2022).

- (298) (Araújo-Adriano & Coelho 2022: 106)
 - a. **Será** o Benedito que está chovendo de novo!
 be.Fut the B. that be rain.GER again
 'Good heavens, it is raining again!' (cf. *Vai.PRS ser.INF o Benedito que está chovendo! lit. 'Will be the B. that it is raining')
 - b. Teu quarto está ao Deus dará!.
 your bedroom is to-the God give.FUT
 'Your bedroom is a mess!' (cf. *Teu quarto está ao Deus vai dar! lit. 'Your bedroom is to the God will give')

Absence of Plus-perfect Interpretation

The same loss is found with respect to the synthetic plus-perfect that used to trigger a temporal interpretation before the 19th century (Coan 2003: 138), but currently does not convey temporal-aspectual interpretation. The only remnants in present-day BP of this synthetic verb refer to some crystallised and fixed expressions (Araújo-Adriano & Coelho 2022). Although *dera* give.PLPF is in the plus-perfect morphology, it does not trigger a plus-perfect interpretation; the interpretation is that of 'I wish'.

- (299) (Araújo-Adriano & Coelho 2022: 100)
 - a. Quem (me) dera eu pudesse tirar férias logo.
 who me give.PLPF I could take vacation soon
 'I wish I could go on vacation soon.' (cf. *Quem me tinha.IPFV dado.PRT
 eu... 'Who me have.IPFV give.PRT I ...')
 - b. Tomara que eu consiga chegar cedo hoje!
 take that I could arrive early today!
 'I hope I can get there early today' (cf. *tinha.IPFV tomado.PTCP 'Too have.IPFV take.PRT'

Absence of Present Interpretation

I need not mention that this loss of temporal interpretation is also associated with the synthetic present, as previously discussed in Section 3.3. This Tense lost temporal interpretations with respect to the lexical verb (cf. Figure 3.4), and their remnants trigger durative, habitual, generic Aspects etc. (Section 3.1), but they do not convey Tense anymore.

Only Move to License, otherwise... Do Not Move

We have heretofore seen that synthetic lexical verbs licensed a temporal interpretation and also moved to a high position (arguably to the T-field) to surface before sempre 'always'. When they lost temporal properties - viz. at the end of the 19th century -, however, they also lost verb movement to a high position, no longer preceding the relatively medium-high adverbs such as quase 'almost'. Auxiliary verbs, to the contrary, which have always been part of the BP system, have also triggered Temporal interpretations. The crucial point is that exactly when lexical verbs stopped moving to a higher position, auxiliary usage abruptly increased.

Therefore, the loss of temporal interpretation in the synthetic past, future, plusperfect and present Tenses can be interpreted in the following way. Since BP lexical verbs used to trigger not only Tense but also Aspect before the 19th century, TA was also syncretic, hence [uT]: Consequently, lexical verbs moved to T to disambiguate the temporal interpretation that they also triggered. At the same period, auxiliary verbs were also syncretic between Tense and Aspect, thus [uT], which gave rise to their pattern of also moving to T. Combined, before the 19th century, T was [uT] with respect to all verb elements, both V and $v_{\rm aux}$, thus forcing the movement of any V to T. This mimics Period I.

Subsequently, after the end of the 19th century, lexical verbs lost their temporal interpretation: Thereafter, lexical V is no longer syncretic between Tense and Aspect, because it no longer has any temporal interpretation. Contrarily, auxiliary verbs maintained their temporal features and also their syncretism regarding Aspect, which amounts to saying that auxiliary verbs are still [uT]. Therefore, around the end of the 19th century, T restricted its [uT] feature to only $v_{\rm aux}$, no longer housing lexical verbs.

Our approach is in line with Cyrino (2013: 314), for whom "having periphrastic forms does not guarantee poorness of tense, since one can argue that the richness of tense could be coded in the auxiliary forms" and with Biberauer & Roberts (2012: 278), who claim that "a negative setting of the V-to-T parameter does not rule out the possibility of verbal elements appearing in T since auxiliaries (which I take to be first-merged in v) may constitute a class of verbal elements that move there." Hence, although lexical verbs lost temporal interpretation, structures already in the system also conveying this value kept triggering Tense (cf. Figure 5.1). In this way, from the moment that lexical verbs lost their interpretation, auxiliaries were promoted as the only structures that could value Tense, thus the abrupt rise of estar.PRS + gerund by the end of the 19th century, as we saw before, repeated below (cf. abrupt rise of other analytic constructions, shown in Section

4.3).

It is worth noting that this does not amount to saying that lexical verbs do not move in BP. They still do, but not as high as Aspect, as we saw (for a similar proposal for the synthetic past, cf. Cyrino 2013: 314). Aspect still has [uA] for all verb elements, for both v_{aux} and V. Evidence for this claim is the synthetic present lexical verbs: Albeit they do not convey Tense per se, they do convey different Aspect readings. Since morphology itself is not dedicated to conveying a specific Aspectual reading, this ambiguity (-PI) amounts to saying that Aspect for lexical verbs is indeed [uA], leading the syntactic movement to be the only resort to disambiguate the multiple Aspectual interpretations they trigger.

As for Mood, by losing temporal interpretation, some remnant synthetic lexical verbs such as the plus-perfect either became neutralised with respect to TAM interpretation, falling under our main Tense inertness hypothesis (as in the case of fixed expressions, cf. Araújo-Adriano & Coelho 2022), or became forms that convey conditional and modal values (Becker 2008). Therefore, although no plus-perfect synthetic form would trigger a Mood interpretation in the first case, as exhibited in Table 5.7, the morphology of the synthetic plus-perfect would arguably be devoted to triggering Mood interpretation in the vein of Becker (2008), making it reasonable to claim that Mood is non-syncretic; hence +PI and [iM], that is, no verb movement.

In light of our proposal of (non-)syncretism playing a role in verb movement in an analytic language like BP and the loss of temporal interpretation of synthetic verbs, the unexpected behaviour of lexical verb movement to TAM can now be accounted for quite simply, without appealing to an external explanation that might not be strictly linked to TAM properties, such as agreement markings. Now, the lower movement of BP lexical verbs can be understood as a consequence of the neutralisation of T regarding V, when they lost Temporal interpretation, viz. the end of the 19th century. Since they only trigger different Aspectual interpretations, they must move to only Asp-field, not higher. This leads us to the following diachronic scenario:

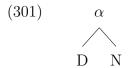
```
(300) \quad \text{a.} \quad \text{TAM system in BP prior to the 19th century:} \\ [Mood[iM][Tense[uT][Aspect[uA][v_{\text{aux}} - v - VP]]]] \\ \text{b.} \quad \text{TAM system in BP after the 19th century:} \\ [Mood[iM][Tense[iT][Aspect[uA][v - VP]]]] \\ [Mood[iM][Tense[uT][Aspect[uA][v_{\text{aux}}]]]] \\ \end{cases}
```

In this section, based on the diachronic results both from lexical and auxiliary verbs (cf. Chapter 3 and 4), I suggested that lexical verbs do not move to a higher position anymore in BP, for the synthetic lexical present, past, plus-perfect, imperfect, and future verbs lost temporal interpretation, triggering T to become temporally inert with respect to them. Since auxiliary verbs were always in the system, triggering temporal values, T kept its temporal feature regarding those. To formalise this hypothesis, I suggested that T restricted its [uT] features that triggered verb movement to only $v_{\rm aux}$. This account seems to be more elegant since it simply correlates the loss of verb movement to the TAM zone with the loss of TAM interpretation/licensing. Additionally, it highlights the predictive power of the TAM approach developed by Schifano (2018). In the following section, I

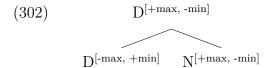
consider another proposal for verb movement that associates movement with a repairing strategy for unstable structures.

5.2.2 Triggering Verb Movement: Move to Repair

Another way of approaching syntactic movement is by considering interface conditions: Objects built from syntax must receive a label pointing to the nature of the object. As I presented in Chapter 1, under the Strong Minimalist Thesis (Chomsky 1995b), language is designed to satisfy interface conditions, viz. the Sensorimotor system for externalisation and the Conceptual-intentional system for thought. In this way, the structure generated by merging syntactic objects, a basic operation, must be well interpreted by both interface systems. For an object to be interpreted, it must shout out what kind of object it is, whether a verb, a determiner etc. Since only heads can undergo External Merge, it is not obvious that when D and N are merged, at the beginning of a derivation, the resulting structure should be a D or an N, for instance (301). In this case, Chomsky (2013: 43, 2015: 6) suggests that there is a Labelling Algorithm (LA) that identifies what kind of object the resulting merge has just built.

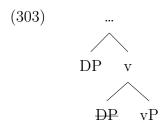


Depending on the object formed by the operation of Merge, three are the ways of labelling a syntactic object. If a Merge occurs between an [-min] element, viz. a head, and an [+max] element, viz. a phrase, (302), LA labels this object as the closest head. This means that the presence of a head suffices for LA to label the object with the head, given that it is the closest head visible. In the case of D and N presented before, if N is actually an NP, a [+max] element, the resulting structure will be labelled D, the head of the object (for the case of merging of two heads, cf. discussion below).



If there are, however, two complex [+max] objects, that is, XP and YP, LA labels the resulting merge either when this object is modified or when there are some features in common between both [+max] elements. Let us first consider the former case. When two [+max] elements are Merged, both their heads can be visible to label the object built. LA can identify the label of the structure by modifying it: In XP moving to a higher position, for instance, the only visible/closest head to label [XP YP] is the head of YP. This kind of labelling somehow forces the movement of an internal category to scan for a proper label (see also Moro & Roberts 2021). One clear example is the movement of the external argument (to Spec, T): DP must move not because there might be an EPP feature at T

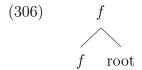
but due to the need to label the resulting structure built from the merging of DP with vP. When the DP moves, the closest head available for labelling the object is the head of vP, that is, v.



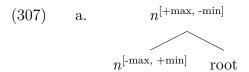
Whenever no element moves to a higher position, Chomsky (2013: 45, 2015: 8) suggests that the object's label will be determined by the most prominent communal features shared between both complex objects merged. This is the case of (304-a), where [which dog breed] is internally merged with a CP, both [+max] elements. Here, heads of both the wh and the C phrases are enabled to label the object; however, inasmuch as none of them moves further (305), LA seeks for the property both have in common, viz. an (interrogative) Q-feature, and labels α as Q (304-a).

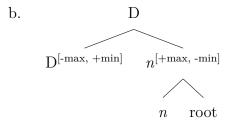
- (304) a. [they wondered [$_{\alpha}$ [wh which dog breed] [$_{C}$ I have __]] b. [they wondered [$_{Q}$ [wh which dog breed] [$_{C}$ I have __]]
 - *W/L:-L down loans down down I have
- (305) a. *Which dog breed do they wonder I have. b. *I have they wondered which dog breed.

So far, I have presented how LA works when objects formed by Merge are a head and a phrase (302), and two phrases (303)–(304-a). The merging of two heads remains to be discussed. Given that a derivation must start with two objects, *i.e.*, two heads, the resulting merge must be labelled. Chomsky (2013: 47, 2015: 7–8), based on Marantz (1997) and Borer (2005), suggests that the beginning of a derivation occurs between a $\sqrt{\text{ROOT}}$ and a functional element categoriser, dubbed as f. Hence, since roots do not have any syntactic property, they cannot label, and the structure label is given by f.



If we return to the structure in (301), considering that a noun phrase (NP) is, in fact, a root categorised by a nominal f, (307-b) should replace it. Now, given that the projected n is an [+max] element (YP), when D (X) is Externally Merged (viz. [X YP]) because it is a head, it will label the structure.





Having discussed the role of syntax in providing labels to the Interfaces, indicating which element was built by Merge, I now discuss another interface condition. Aside from being labelled, structures must be linearised in the sensorimotor system. One way to linearise is by the Linear Correspondence Axiom (LCA) proposed by Kayne (1994: 5–6). LCA states that element X precedes an element Y if and only if X asymmetrically c-commands Y. Under the bare phrase structure approach, Moro & Roberts (2021: 2) claim that Internal Merge, movement, is a repair strategy for unstable structures, that is, structures unlabellable or unlinearisable, an approach that I call here Move-to-Repair.

Albeit the unstable structure in (308) has a label v, it cannot be linearised inasmuch as both [+min] elements mutually asymmetrically c-command one another. Therefore, Moro & Roberts (2021: 8) suggest two strategies to repair the structure, viz. moving the Root or the categoriser/X^[-max, +min]. By moving the root (308-b)¹⁰³, the first strategy will feed the LCA to linearise the root as preceding the categoriser, given that the root asymmetrically c-commands v. This gives rise to a head-final configuration where the complement (the root) moved around its head (the v), a case of rollup (cf. also Biberauer et al. 2014a: 2008).



The other strategy generates the head-initial configuration. Being an $X^{[-max, +min]}$, the categoriser can move to linearise as preceding the root, a typical case of head movement. Both options are parametrised (Moro & Roberts 2021: 9): Languages can strategically repair an unstable structure either by rollup or head movement (309). Nevertheless, as noted by Moro & Roberts (2021: 10), the parameter options "can 'flip' at any stage of the

¹⁰²Moro & Roberts (2021: 8) adopt the c-command notion proposed by Reinhart (1983) as follows:

⁽i) α c-commands β if and only if the first branching node γ dominating α dominates β .

¹⁰³This is not a violation of anti-locality (Boskovic 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.

derivation", that is, not all structures in a given language must follow either (309-a) or (309-b): 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.

- (309) 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).

(Moro & Roberts 2021: 9)

Under this approach, Calabrese & Roberts (in prep) propose that verb movement is triggered by the necessity to repair unstable structures. Following Calabrese's (2015) work on Italian and Latin, they assume that French finite verbs have the Extended Projection of V in (310), formed by iterated head-rollup of Root through v, Asp, T, M, and Agr before the external merge (EM) of arguments. I will refer to these functional projections in the v complex as 'internal Asp', 'internal T', and so on. Albeit some nodes might be phonologically realised, whilst others will be realised as ϕ , they are always projected (Calabrese 2021). The exponents that will realise each node for the regular first conjugation in Modern French are given in Table 5.10.

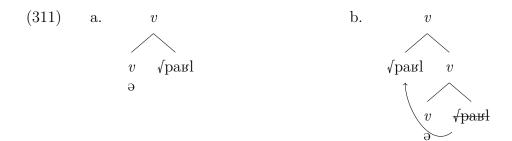
$[[[[[[Root]V^0]Asp^0]F^0]T^0]M^0]Agr^0]$

	Root	$\mathbf{v^0}$	\mathbf{TV}	Asp	T(fut)	T(past)	Mood	Agr	
[barl]	/parl/	Ø	-ə	Ø	ø	Ø	ø	/-z/	indicative present
[barle]	/parl/	Ø	- 0	Ø	Ø	3-	Ø	/-z/	indicative imperfect
[barləra]	/parl/	Ø	- 9	Ø	-RO	Ø	Ø	/-z/	indicative future
[barlere]	/parl/	Ø	- ə	Ø	-RO	3-	Ø	/-z/	indicative conditional
[barla]	/parl/	Ø	- ə	Ø	Ø	- α	Ø	/-z/	indicative past
[barl]	/parl/	Ø	- 9	Ø	Ø	Ø	-9	/-z/	subjunctive present
[barlas]	$/\mathrm{real}/$	Ø	- -	Ø	Ø	-as	- -	/-z/	subjunctive imperfect

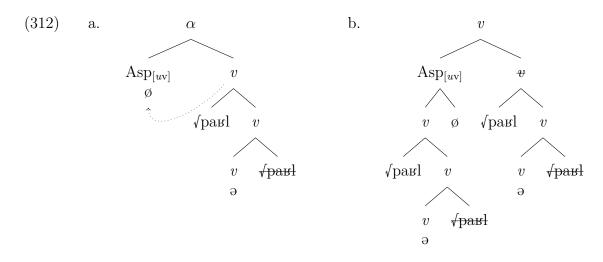
Table 5.10: Forms of a French Regular 1st Conjugation Verb (Adapted from Calabrese & Roberts in prep).

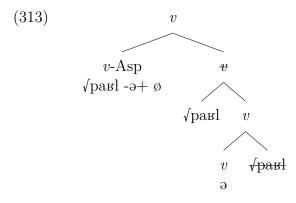
As mentioned above, the main idea proposed by Calabrese & Roberts (in prep) is that the verb is formed, like a complex verb, before the insertion of arguments (cf. also Calabrese 2021). Hence, the verb is formed cyclically bottom-up by external merge – movement (Bobaljik 2000: 1). Now, based on Calabrese & Roberts (in prep), let us explicitly derive the French verb parlerions /paʁləʁjõ/ 'we would speak'. First, as in (311-a), the root /paʁl/ and a verbaliser are merged, with the categorises labelling the object formed (Chomsky 2013: 47, 2015: 7–8). This structure is unstable because LCA cannot linearise it: The root can either follow or precede v. Hence, under the Move-to-Repair approach, $\sqrt{paʁ$ l is forced to internally merge with v (311-b), as a head-movement repair (309). Now, the root asymmetrically c-commands the verbaliser, and the former will be linearised as preceding

the latter. Inasmuch as roots do not label, the label of the new object is the closest head available, still v.



The following derivation step is the External Merge of internal Asp from the Numeration, introducing Aspectual affixes. Inflections are weak heads, and weak heads bear uninterpretable features, they cannot label α (cf. Oda 2021: 137). Under the Move-to-Repair approach, the only way to label α in (312-a) is via the Internal Merge of v, as in (312-b). Again, an unlabelled structure triggered a movement to repair its unstable status. In Chomsky's (2019) sense, the structure internally Merged is a Pair-Merge, giving rise to v-Asp (313), where v is $\sqrt{\text{pa}_B \cdot v}$.



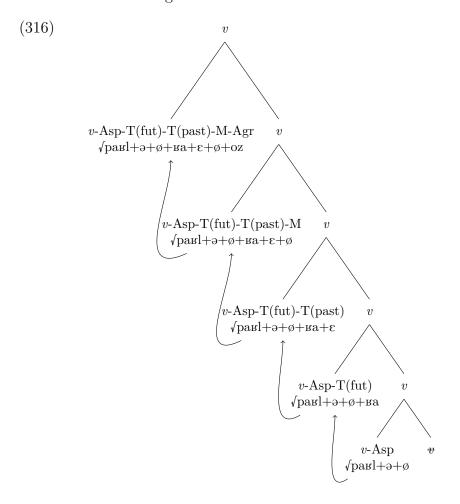


Cyclically, if a node bears a \emptyset -phantom exponent, the features of this node will be integrated into the higher node, with further pruning of the null node. Calabrese (2021: 13) called this operation Null-node Pruning (314), where \emptyset -phantom exponents always trigger a fusion of features. In (315), Φ are exponents, F and G are features, and Φ ₂ is a \emptyset -phantom exponent. Given that feature F realises a \emptyset -phantom exponent, Null-node Pruning triggers the pruning of this node, with the subsequent fusion of F with the following feature G.

(314) Null-node pruning: If X is a terminal node containing the feature [F] and the exponent of [F] is phonologically null, prune X and merge [F] with an adjacent higher terminal node, if there is one (Calabrese 2021: 13)

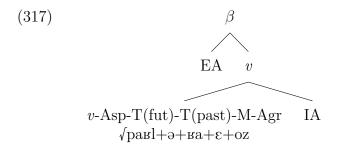
(315)
$$[[\Phi_1][\pm F \to \Phi_2 (=\emptyset)][\pm G]] \to [[\Phi_1][\pm F, \pm G]]$$

Following from (313), after the External Merge of internal T(Fut), T(Past), Mood and Agr, the complex verb is formed. Considering that those internal functional heads bear affixes that cannot label, due to their weakness (Oda 2021: 137), the whole structure is labelled v via the movement of the already formed v complex. The structure generated would be the following.

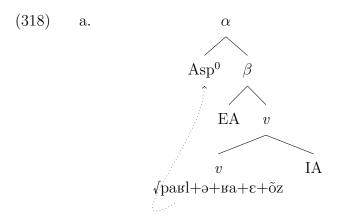


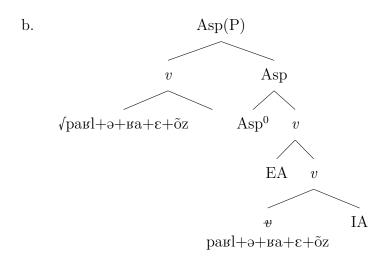
From there, and before the merge of both internal and external arguments, all null

exponents are cyclically pruned, giving rise to (317). Note that, since v is a [+max] category, the output formed by the merge of the external argument, also a [+max] category, is unlabelled, hence external arguments must eventually move to repair this unstable structure. In this case, the EPP feature that triggers the movement of the EA can be ruled out (Roberts 2022): The external argument moves to repair an unstable structure.



Now that the verb complex is formed, clausal functional structures are merged: Clausal Asp is inserted from the Numeration. Since it is affixal, as Roberts (2022) assumes based on Oda (2021), it is too weak to label (318-a), forcing the movement of v to it (since it is a complex v, this movement takes place to Spec, Asp, in the style of Matushansky 2006). Now, the external argument raises to Spec, Asp, repairing the unlabelled β as v. When clausal T, M(ood) merge into the structure, inasmuch as they are affixal or uninterpretable – incapable of labelling – they internally merge with v.





Under this Move-to-Repair approach, verb movement can be understood as an interface requirement to repair structures that are unstable. Movement, then, is triggered as a strategy to meet interface conditions stating that structures must have a label and be linearised. In the following section, I adopt this approach and formalise different verb movements in BP.

5.2.3 Formalising Different Verb Word-order in BP

Synthetic Verbs Movement under the Move-to-Repair Approach

Having presented the approach to verb movement as a repair strategy, I can now discuss the difference between lexical and auxiliary verb movement in BP, exemplifying it with the synthetic and analytic present Tense. Based on Calabrese (2015), Roberts (2022), Moro & Roberts (2021), I adopted the basic segmentation of Brazilian Portuguese verbal forms, represented by the first conjugation regular verb realizar 'realise', as given below in Table 5.11 (a segmentation that needs to be sharpened¹⁰⁴).

(319)
$$[[[[[Root]v^0]Asp^0]T-Fut^0]T-Past^0]M^0]Agr/\phi]$$

	Root	v^0	TV	Asp	T(fut)	T(past)	Mood	Agr	
[realiza]	/real/	-iz	-a	Ø	Ø	Ø	Ø	Ø	indicative present
[realizava]	$/\mathrm{real}/$	-iz	-a	Ø	Ø	-va	Ø	Ø	indicative imperfect
[realizará]	$/\mathrm{real}/$	-iz	-a	Ø	-r(a)	Ø	Ø	Ø	indicative future
[realizaria]	/real/	-iz	-a	Ø	-r(i)	-a	Ø	Ø	indicative conditional
[realize]	/real/	-iz	-a	Ø	Ø	Ø	-e	Ø	subjunctive present
[realizasse]	/real/	-iz	-a	Ø	Ø	-S	-e	Ø	subjunctive imperfect

Table 5.11: BP verbal segmentation.

Under the emergentist approach to language acquisition adopted, from the string /realiza- ϕ - ϕ - ϕ - ϕ - ϕ / 'realise.PRS.3SG' in the PLD, BP children have morphological evidence that this verb has the features [-PAST, -FUTURE]; that is, this verb is morphologically in the present. If any internal T head bore an affix, either [+PAST] or [+FUTURE], the present morphology would not be identified, given the exponent available to realise [+PAST] or [+FUTURE]: -va, -a, -u, -se for the former and -r(a), -r(i) for the latter, instead. In this case, internal functional heads bear binary features [\pm PERFECT]Asp⁰, [\pm FUTURE]Fut⁰, [\pm PAST]T⁰, [\pm IRREALIS]Mood⁰ (Roberts 2022, Calabrese & Roberts in prep).

(320)

¹⁰⁴Considering that functional heads require a thematic position (Oltra-Massuet 1999: 26), in the case of indicative future and indicative conditional, respectively, -a and -i can be taken as a theme vowel, in the spirit of Santana (2016: 52-4). The same applies to the exponent -a lexicalising T(past) in the indicative conditional.

		In	Subjunctive				
	present	imperfect	present	imperfect			
perfect	-	-	-	-	+	_	-
past	-	+	-	+	+	_	+
future	-	-	+	+	-	_	-
irrealis	-	-	-	-	-	+	+

These features are associated with the following exponents:

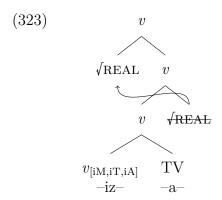
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(321) a. [+PAST] \leftrightarrow /-s-//\_[+IRREALIS]
b. [+PAST] \leftrightarrow /-va-//\_[-IRREALIS]
c. [+FUTURE] \leftrightarrow /-r-/
d. [+IRREALIS] \leftrightarrow /-e-/
e. All other nodes are assigned \emptyset
```

This approach, in which the complex verb is formed first, accounts for the fact that one still recognises some verbal forms morphologically, given the presence of the exponents realising a specific feature, albeit they have no intrinsic temporal interpretation, triggered further by the relation between v and clausal T.

In BP, for instance, albeit dirá 'say.FUT' has no temporal interpretation (322), it is still recognised as being morphologically in the future, given the presence of the exponent -rathat realises a [+FUTURE] morphology in internal T(Fut) (cf. (322-b)). Additionally, as it has been commonplace to say that the present Tense is somehow inert and non-marked (Mioto 1985: 16, Camara Júnior 1999: 100), this approach naturally accounts for that: Since the present is [-F] (cf. Table 5.11) with respect to every internal TAM category, there is no exponent to lexicalise present morphology, hence the non-markedness.

```
(322) a. quem dirá eu. who say I 
 'Let alone me.' (cf. *que vai dizer eu lit. 'who go.PRS say.INF I') 
 b. ([[[[[/\di] v^0 \@] Asp^0 \@] T(Fut)^0 -ra] T(Past)^0 \@] M^0 \@] Agr/\phi\@])
```

The derivation starts with the merge of the root $\sqrt{\text{REAL}}$ and the verbaliser, the latter bearing [iM], [iT], [iA], in line with Schifano (2018: 165–6). Since roots cannot label (Chomsky 2013: 47, 2015: 7–8), the output of the Merge($v,\sqrt{\text{REAL}}$) is labelled as v. The object just formed, however, cannot be linearised: Both v and $\sqrt{\text{REAL}}$ c-command each other. To repair this (cf. (309)), a roll-up must be applied, giving rise to a disharmonic head-final order (Moro & Roberts 2021: 10):

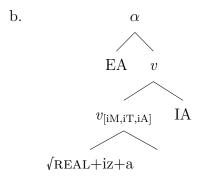


This rollup strategy to repair the faulty structure product of $Merge(v\sqrt{X})$ seems to be a pattern in Romance languages: Whereas the verbal complement must follow the verbal head (e.g. PT Maria come carne, SP Ella come carne, IT Lei mangia carne, FR Elle mange de la viande, RM Ea mănâncă carne 'She eats meat'), the root must precede the verbaliser. This precedence can be clearly seen in the case of the projection of a thematic vowel and/or the exponent of a verbaliser. Given that the verbal thematic vowel is an ornamental element with no syntactic-semantic function, it is projected by the verbaliser, as suggested by Oltra-Massuet & Arregi (2005). Thus, assuming verbalisers always project a theme vowel, we see that the verbaliser must follow the roots, a case of head-final. As a matter of illustration, consider the precedence of the root concerning the verbalisers \emptyset in Italian and -ec-/-ic- elsewhere, as well as concerning the theme vowel, -i- in Italian and French, and -e- in Portuguese and Spanish. In all of them, we have the order root > v > TV Hence, the head-initial versus head-final pattern concerning the position of the verbs and their internal arguments, and the verbaliser and the root gives rise to a disharmonic head-final parameter for the Romance languages.

(324) a.
$$[\sqrt{\text{NOIR}} \ [v \text{ ic } [\text{TV i } [(\text{Inf}) \ r]]]$$
 (FR)
b. $[\sqrt{\text{ESCUR}} \ [v \text{ ec } [\text{TV e } [(\text{Inf}) \ r]]]$ (PT)
c. $[\sqrt{\text{OSCUR}} \ [v \text{ ec } [\text{TV e } [(\text{Inf}) \ r]]]$ (SP)
d. $[\sqrt{\text{SCUR}} \ [v \text{ \emptyset} \ [\text{TV i } [(\text{Inf}) \ r]]]$ (IT)

Turning back to BP derivation, after movement of the root to repair the unstable structure in (323), internal affixal functional heads – [-PERFECT]Asp⁰, [-FUTURE]Fut⁰, [-PAST]T⁰, [-IRREALIS]Mood⁰ –, unlabelable, are merged, raising v. By moving v, the structure is repaired in both ways: A label is now provided, and linearisation is structurally derived (verbal root precedes the verbaliser and every affix). In each merge, a null node is cyclically pruned. Hence, the complex verb, along with the External Merge of lexical Internal and External Arguments, has the the following configuration.

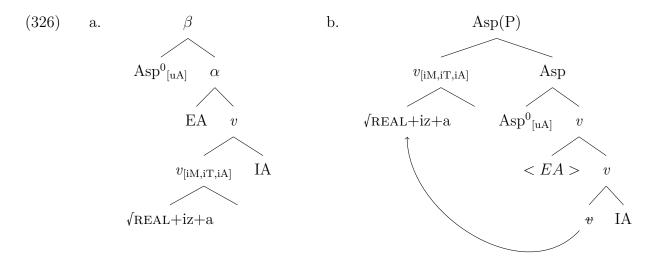
(325) a.
$$[[[[[\sqrt{\text{REAL}}]v^0\text{-iz-(-a-)}]\text{Asp}^0\emptyset]\text{T-Fut}^0\emptyset]\text{T-Past}^0\emptyset]\text{M}^0\emptyset]\text{Agr}/\Phi\emptyset]$$



Once the synthetic present verb realiza 'realises' is precociously formed in BP, BP children recognise v as morphologically in the present, as opposed to realizava 'realised', given the \emptyset exponents after the root (325-a). Whether this verb will have a temporal interpretation depends upon the functional category with which it will further establish some relation. At this moment, the syntactic component only morphologically derived a verb.

As I mentioned, Schifano (2018) fruitfully showed a connection between syncretic categories and verb movement, suggesting that syncretic, ambiguous, +PI category triggers verb movement to disambiguate their multiple interpretations. I advance here the Moveto-Repair approach (Moro 2000, Calabrese & Roberts) by claiming that not only affixes (Oda 2021), but also syncretic and ambiguous categories, are too weak to label.

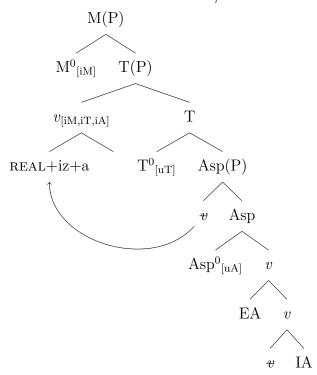
Under this approach, from (325-a), the following item to be merged is clausal Asp⁰. Given that Asp in BP is -PI because it is syncretic, as argued before, it bears [uA], a weak category to label, hence β in (326-a). The only way to repair this structure is by Internal Merge of v (326-b). In Asp, synthetic present verbs license their aspectual features (habitual, generic, retrospective, etc.). For instance, in $Voc\hat{e}$ vem sempre aqui? 'Do you always come here?', the frequentative aspectual interpretation triggered by the present morphology is licensed in Asp. Note that the Merge output (EA,v) is now labelled as v since EA moved to Spec, AspP (this step is not represented). Thereafter, T is merged.



In the 18th and 19th centuries, as our diachronic data suggested, lexical verbs triggered not only aspectual but also temporal interpretations. They were syncretic and hence bore [uT] concerning lexical verbs. By being syncretic, T could not label the resulting Merge(T, Asp). Then, movement of v was triggered as a repair strategy. Their position with respect to higher verbs was then derived, and their relationship with T accounted for their capacity to trigger temporal values.

In the case of present the Tense, we saw that Tense was also syncretic with Aspect because, throughout BP history, synthetic present verbs triggered not only (present) Tense but also (durative, habitual, generic, etc.) Aspect. Hence, as argued before, T^0 bore [uT], triggering v movement as the only way to label the object formed after T^0 was merged. The verbal structure of BP in the 18th/19th century is the following:

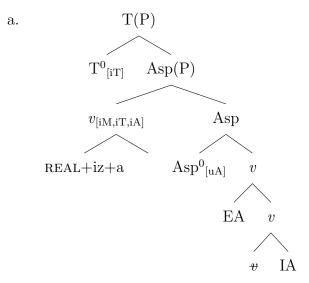
(327) BP TAM structure in the 18th/19th centuries

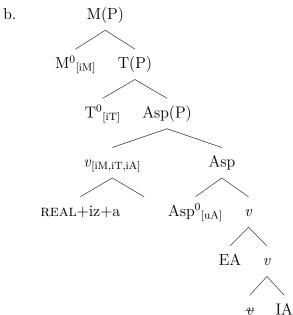


After the 19th century, we saw in the preceding chapters, BP lexical verbs lost their temporal interpretation, which amounts to saying that the feature [uT] in T is no longer available. Since T^0 with respect to lexical verbs became inert, either by language contact or feature economy, when T is inserted, its $[iT]^{105}$ feature can label because it does not trigger any value, hence not syncretic. Consequently, movement of v is not licensed (328-a). Afterwards, M^0 bearing [iM] is inserted, being able to label without raising v (328-b).

¹⁰⁵Claiming this is not equivalent to saying that every functional head bearing [iF] is inert. One could argue that the presence of this [iT] in BP is just there to signalise finiteness, for example, while in other languages and even other categories, [iF] means something else.

(328) BP TAM structure in the 20th/21tst centuries





Auxiliary Verb Movement under the Move-to-Repair Approach

The derivations I just depicted regard lexical verbs, both for BP before and after the 19th century. As I argued, when synthetic lexical verbs lost their temporal interpretation, BP speakers did not have evidence for a Tense value. Given that auxiliary verbs were already in the system to convey Tense, being a structural representation simpler than that with lexical verbs, speakers started using auxiliaries as the only way to value temporal interpretation. In the following, I derive these structures conveying Tense in present-day BP.

I follow Roberts (2022), for whom auxiliaries are built before merging into the clausal

structure. Thus, they are precociously formed before being merged with their internal arguments, as well as lexical verbs. The morphophonological content that will realise the internal Tense, Aspect, and Mood of *estar* 'be' is the following, being similar to exponents available for lexical verbs:

	Root	v^0	\mathbf{TV}	Asp	T(fut)	T(past)	Mood	Agr	
[está]	/est/	Ø	-a	Ø	Ø	Ø	Ø	Ø	indicative present
[estava]	$/\mathrm{est}/$	Ø	-a	Ø	Ø	-va	Ø	Ø	indicative imperfect
[estará]	$/\mathrm{est}/$	Ø	-a	Ø	-r(a)	Ø	Ø	Ø	indicative future
[estaria]	$/\mathrm{est}/$	Ø	-a	Ø	-r(i)	-a	Ø	Ø	indicative conditional

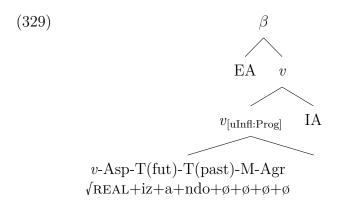
Table 5.12: BP verbal segmentation.

In addition to the auxiliary estar 'be', BP's present analytic Tense also has a non-finite verb: a gerund verb. Thus, the gerund form of BP would have the exponents in Table 5.13: Given that non-finite forms have no Tense, its exponent is \emptyset ; at the same time, gerunds trigger no Mood interpretation, thus \emptyset . To derive a gerund verbal form ending in -ndo, I take this exponent to lexicalise the intraverbal Asp. Finally, Agr in BP gerunds is \emptyset . ¹⁰⁶

	Root	v^0	\mathbf{TV}	Asp	T(fut)	T(past)	Mood	Agr	
[real]	/real/	-iz	-a	-ndo	Ø	Ø	Ø	Ø	gerund

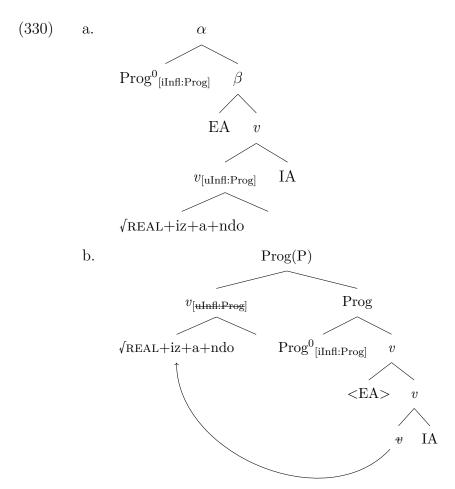
Table 5.13: BP verbal segmentation.

The derivation of an analytic construction in BP takes the following steps. Before the external merge of arguments, the verbal complex is formed in the same fashion presented for lexical verbs: The root moves to be linearised as preceding the verbaliser. In line with Harwood (2013), I assume that the verbaliser of auxiliaries bears an inflectional [uInfl: α] feature, in our case, [uInfl:Prog] (cf. also § Word-order 4.2). After iterated movement with exponents, followed by pruning of \emptyset forms, in the sense of Calabrese (2021: 13), the gerund is formed.



¹⁰⁶As pointed out by Lobo (2003: 374), gerunds can exhibit agreement marking in some dialects of European Portuguese (vindo-ø/vindo-s/vindo-ø/vindo-mos/vindo)-eis/vindo)-em 'coming').

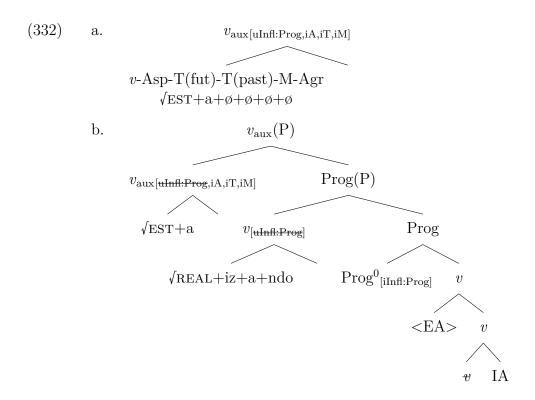
Thereafter, $Prog^0$ with [iInfl:Prog] is inserted. Since its affixal, it is morphophonologically dependent in Oda's (2021) sense; it cannot label α , as in (330-a). Hence, the movement of v is triggered as the only option to repair this unstable structure (330-a).



Note that if Prog^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 progressive particle yn in Welsh: The lexical verb does not move past v, and yn is base-merged in Prog^0 , not triggering the movement of the verb (331).

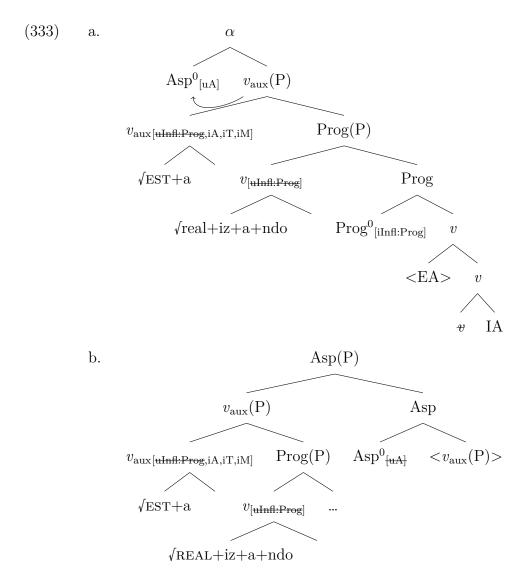
(331) Mar 'r plant i gyd wedi bod **yn** canu be.3sg.pres children all perf be prog sing 'The children all have been singing.' (Roberts 2022)

In parallel, the auxiliary is formed after iterated movement through intraverbal Asp^0 , $T(Fut)^0$, $T(Past)^0$, $Mood^0$, and Agr^0 (332-a). Since *estar* bears an [uInfl:Prog], the only way to delete its uninterpretable feature is by merging it with the $Prog^0$ that bears [iInfl:Prog] (332-b). The object formed by $Merge(v_{aux}, Prog)$ here equates to Harwood's Harwood's (2015) vP-shell, viz vP_{Prog} and ProgP.

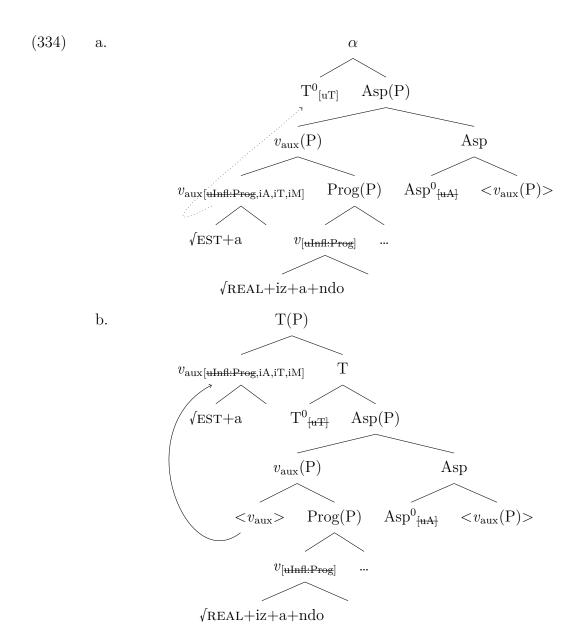


Afterwards, clausal Asp^0 is merged with $v_{aux}(P)$. Given that Asp in BP is syncretic, hence uninterpretable, it is incapable of labelling α in (333-a): Any object must move to repair this unstable structure. There are two candidates (cf. strategies to repair unstable structures (309)): Either v_{aux} or $v_{aux}(P)$. I propose that what moves to Asp is the latter, via rollup of $v_{aux}P$. What triggers the Aspectual interpretation is not the auxiliary alone but the set auxiliary + non-finite domain. For instance, the durative interpretation of estou malhando 'I've been working out' is not licensed only by the auxiliary nor only by the gerund; it is the whole structure ($viz.\ v_{aux}(P)$). I then hypothesise that the aspectual feature, e.g., [+DURATIVE], is borne by the lexical verb; however, when it is merged elements: The auxiliary verb and Prog⁰. In this sense, the output of Merge(v_{aux} , Prog(P)) has [iA,iT,iM,+DURATIVE], and the manner to repair the unstable structure generated by the merge of syncretic Asp^0 is via roll-up of $v_{aux}(P)$:

 $^{^{107}}$ Merge is being taken as originally proposed by Chomsky (2008: 138): "Merge of X and Y leaves the two SOs unchanged. If so, then the 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".



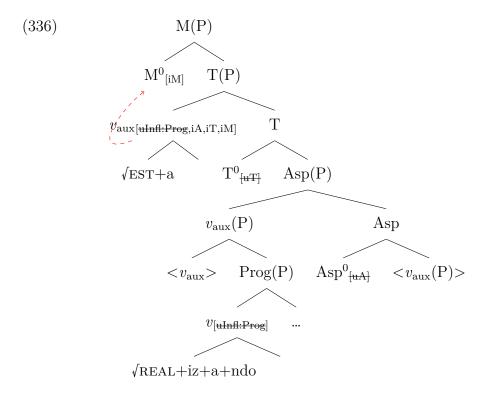
In the next step, T^0 , which is also [uT] with respect to auxiliary verbs, merges with Asp(P). The structure is unstable, given that it has no label and, again, there are two options to repair it: Head-movement (= v_{aux}) or roll-up (= $v_{aux}(P)$). Since the repairing is parametrically set (Moro & Roberts 2021: 9), I hypothesise that BP repairs the unstable output of Merge(T,Asp(P)) via head-movement of v_{aux} . This amounts to saying that BP auxiliaries and their non-finite verb move to Asp, but the former leaves the latter there, moving on their own to repair T. This gap that the divorcement between auxiliary and non-finite verbs in Asp creates also has empirical grounds.



I take the results of the psychologic tests, the intervening position for emphatic subjects, negation, and clitics (cf. Section 4.2) as evidence of the head-movement strategy of v_{aux} alone to repair the merge between T, Asp(P), after leaving the non-finite verb in Asp. If the strategy to repair the Merge between T, Asp(P) was by roll-up, moving v_{aux} P instead of only v_{aux} , we would expect to find evidence of complex predicate, psycholinguistic processing of one single unit, and not find intervening emphatic subjects and negation, contrary to fact. This might be the case in Romanian, where the verb moves to a very high field and interpolation is not allowed, as in HAVE + participle. In the Romanian case, since Asp, T, and M are syncretic (Schifano 2018), that is, weak to label, the Romanian strategy to repair these unstable functional structures is by roll-up until Mood(P), not accepting intervenience of certain adverbs.

(335) Am (*adesea) vazut adesea filme bune (Romenian)
I.have often seen often movies good
'I have often seen good movies.' (Schifano 2018: 76, footnote 23)

Continuing from (334-b), since Mood is non-syncretic, when it is merged, it can label its structure without internally merging any object already formed; given the presence of its [iM], movement of v_{aux} is not licensed.



This section has attempted to provide a formal account for the different positions of auxiliary and lexical verbs in BP in the vein of Calabrese (2015), Schifano (2018), Moro & Roberts (2021), Roberts (2022). I suggested that syncretic categories are unstable elements and, therefore, must attract an element to label their unstable object. Hence, to repair this unstable element, movement is triggered. The derivations proposed naturally account for auxiliary and lexical verb placement with respect to adverbs in Spec,M/Spec,T/Spec,A, as exposed in Sections 3.2 and 4.2. I showed that before the 19th century, BP's T had temporal interpretation with respect to not only auxiliary verbs but also lexical verbs. Considering that both verb elements also triggered an Aspectual interpretation, T and Asp were syncretic, hence T[uT]. Consequently, some verbal elements had to move to T and Asp to repair their unstable structure.

This arrangement, however, changed at the end of the 19th century. Given that not only auxiliary constructions but also lexical verbs could have some temporal relation to T, the licensing of T was ambiguous. Hence, either triggered by language contact or by economic principles, BP speakers started to prefer a simpler structure – the analytic construction – over a more complex – lexical verbs – to convey the same thing. The

consequence was the loss of verb movement since there no longer is any relation between V and temporal values in T, and loss of temporal interpretation regarding lexical verbs. In terms of features, I hypothesised that after the 19th century, this loss of temporal values caused a loss of temporal features in lexical verbs, but crucially not with respect to auxiliary verbs. Hence, T maintained its relationship, keeping its [uT] feature with respect to only auxiliary, but not lexical verbs. As suggested before, these two periods can be schematised in the following.

```
(337) \quad \text{a.} \quad \text{TAM system in BP prior to the 19th century:} \\ [Mood[iM][Tense[uT][Aspect[uA][v_{\text{aux}} - v - VP]]]] \\ \text{b.} \quad \text{TAM system in BP after the 19th century:} \\ [Mood[iM][Tense[iT][Aspect[uA][v - VP]]]] \\ [Mood[iM][Tense[uT][Aspect[uA][v_{\text{aux}}]]]] \\ \end{cases}
```

Under an emergentist approach for language change, viz. Parameter Hierarchy, in the following section, I will propose that the change that happened between the 18th (328-b) and 21st centuries (334-b), when BP stopped mimicking a synthetic tendency towards an analytic one, was a change from meso- to microparameter, which restricted the goal elements that T probed over time.

5.3 From Synthetic to Analytic

As a way to achieve explanatory adequacy, Chomsky (2005: 6) suggested that language acquisition involves the conjugation of three factors: Biologically pre-determined factors (UG), linguistic intake (PLD), and principles of data analysis (computational efficiency). Therefore, within the Minimalist view of language, explanatory adequacy is only achieved if UG is the poorest possible:

(338)
$$\begin{array}{ccc} \text{UG} + & \text{PLD} + & \text{Computational Efficiency} \rightarrow \text{Language} \\ \text{Factor 1} & \text{Factor 2} & \text{Factor 3} \end{array}$$

Given the poorness of UG, the diachronic field meets explanatory adequacy by assuming an approach that does not take variation as being genetically encoded, under the Parameter Hierarchy approach (Roberts 2012, Biberauer & Roberts 2012, 2015b, Biberauer & Walkden 2015, Biberauer 2017, Roberts 2019a). The basic premise of this approach is that variation "arises from underspecified aspects of UG and is structured by third-factor properties arising largely from the need for efficient learning" (Roberts 2012: 321). Hence, parameters are not in UG but are determined by learning strategies during language acquisition, *i.e.*, an emergent property of the interaction between the three factors (cf. also §1.3.2).

The main hypothesis the Parameter Hierarchy approach avails is that parametric variation is not extended to all lexical items but restricted to only functional ones. Consequently, parametrisation arises when children entertain different features of functional heads in the lexicon, as stated in the Borer-Chomsky Conjecture, repeated in the following.

(339) The Borer-Chomsky Conjecture (Baker 2008: 353)
All parameters of variation are attributable to differences in the features of particular items (e.g., the functional heads) in the lexicon.

In this view, differences amongst languages are a corollary of aggregates of parameter hierarchies, going from a feature that is maximally spread throughout functional heads, to features that are restricted to not all, but some functional heads. (Biberauer & Roberts 2015b, 2012, 2016, Biberauer 2017, Roberts 2019a).

(340) Types of parameters

For a given value v_i of a parametrically variant feature F:

- a. Macroparameters: All heads of the relevant type, e.g. all probes, all phase heads, etc., share v_i ;
- b. Mesoparameters: All heads of a given natural class, e.g. [+V] or a core functional category, share v_i ;
- c. Microparameters: A small, lexically definable subclass of functional heads (e.g. modal auxiliaries, subject clitics) share v_i ;
- d. Nanoparameters: One or more individual lexical items is/are specified for v_i .

To acquire their target language, children go through a parameter hierarchy based on Factor 3, that is, based on computational efficiency strategies. They are two, Feature Economy and Input Generalisation. In this way, language acquisition is a "minimax search/optimisation algorithm" that guides children within a path that first considers the absence of a feature, minimising them, thereafter, once the feature is perceived, it is generalised as a way of maximal optimisation. Finally, the presence of this feature is attributed to only some heads, not all of them. This learning path has the format of NO > ALL > SOME.

- (341) Feature Economy (Roberts & Roussou 2003: 201) Given a pair of adequate structural representations R, R_0 for a substring of input text of the PLD S, choose R iff R has n distinct FFs and R_0 has m > n distinct FFs.
- (342) Input Generalisation (Roberts 2007: 272) If a functional head H_i of class C is assigned FF_i , assign FF_i to all functional heads $H_1 \dots H_n$ in C.

Having reviewed the Parameter Hierarchy approach (cf. also Chapter 1), I am in a position to present our proposal regarding the change from a synthetic to an analytic verbal tendency system, evidenced in BP diachrony.

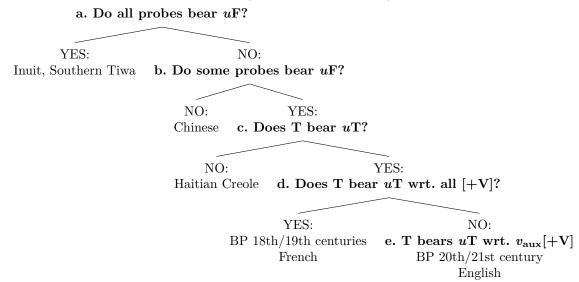
As I hypothesised, the change from synthetic to analytic in BP can be attributed to the presence/absence of the formal feature (F) that the functional head T bore, viz. [uT] (cf. Schifano 2018: 155–64 for general evidence that TMA features are formal features). Based on the diachronic results, I have evidenced two periods, one where T bore [uT] with respect to all verb elements, including not only lexical verbs V, but also auxiliary verbs

 v_{aux} , and another period where T limited its [uT] to only v_{aux} , giving rise to the pattern I attested in this dissertation concerning a period before and after the 19th century.

- (343) a. BP prior to the 19th century
 - $T \rightarrow [uT]$ associated with V: YES
 - \rightarrow [uT] associated with v_{aux} : YES
 - b. BP after the 19th century
 - $T \rightarrow [uT]$ associated with V: NO
 - \rightarrow [uT] associated with v_{aux} : YES

Considering that, in what follows, I propose a Parameter Hierarchy to account for the change that has taken place in BP.

(344) The analyticisation process in BP (Preliminary Version)



In the language acquisition path, the abundance of sentences with a conglomerate of morphemes, as (345), is the manifestation (FF-expression) that the target language is set YES to (a) in (344). This set gives rise to a polysynthetic language such as Inuit or Southern Tiwa. With the absence of evidence in the BP PLD that all probes bear [uF] (N does not incorporate into T, for instance), both 18th/19th- and 20th/21st-century children have set NO to (a) in (344). But their path is not over.

- (345) Do all probes bear uF? < YES (Inuit, Southern Tiwa)
 - a. illu-juaq-aluk-mut-uq-lauq-sima-nngit-nama-li-ttauq house-big-.EMPH-all-.SG-go-.PAST-PERF-neg-.CTG.1sS-but-also 'But also, because I never went to the really big house.' (Dorais 1998: 8)
 - b. ti-seuan-mU-ban. 1SG:A-man-see-.PAST

'I saw the man.' (Baker 1996: 327)

Probes' not bearing [uF] is the instantiation of a fully analytic language where all

of its morphemes are stranded – TAM morphemes included; this is the intake Chinese children have, leading them to assign NO to (b) in (344). Since BP children never had any sort of FF-expression of everything being stranded, the language acquisition procedure does not halt.

```
(346) Do some probes bear uF? < NO (Chinese)

a. Z. da-le dianhua.

Zhangsan hit-.Perf telephone

'Z. telephoned.' (Huang, 2014: 4) (Huang 2015: 4)

b. ben shu.

CL book

'book' (Huang 2015: 8)
```

Later, in the BP acquisition path, the child decides whether in their language T bears [uT]. Being exposed to a language that is only temporally analytic, having its TAM morphemes stranded (347), maybe with those morphemes directly base-merged in T but not adjoined into a verb, a child is led to answer NO to (c) in (344). This is the case of Haitian Creole, a language without features that attract V (Roberts 2017a: 333), where TMA markers, combined with a lexical verb, trigger a temporal interpretation (McCloskey 2017). In the history of Portuguese, however, Brazilian children have by no means had in their PLD strings akin to Haitian children's PLD, which triggered the latter to always assign NO to (c) in (344).

```
(347) Does T bear uT? < NO (Haitian Creole)

a. Mwen pa kwè pèsonn ap vini.

1SG NEG believe nobody FUT come
'I don't believe that anybody will come.' (Roberts 2017a: 330)

b. Jan te toujours te ap rakonte yon istwa.

J. PAST always ANT PROG tell a story
'J. had always been telling a story.' (Cinque 1999: 63)
```

Having enough evidence of temporal interpretation encoded on verbs, both lexical and auxiliaries, e.g., comerei 'eat.FUT.1SG', como 'eat.PRS1SG', comera 'eat.PLPF', estou 'BE.PRS.1SG', and that both types of verbs triggered a temporal value by being around (348), 18th- and 19th-century children noticed that their language had TAM features activated in the verb. Lexical verbs being syncretic between Asp and Tense led children to entertain that T had a [uT] concerning Vs. Additionally, the existence of auxiliary verbs in the system triggering both Asp and Tense interpretations was evidence that T bore [uT] with respect to $v_{\rm aux}$. Looking for maximisation of features, meeting Input Generalisation, BP children entertained that T bore [uT] regarding all [+V] elements. This seems to be the same analysis a French child does nowadays: Lexical and auxiliary French verbs trigger a temporal interpretation, as well as they both move to T, given their position concerning high adverbs such as probablement 'probably' (349). In other words, all (finite) verbs are probed by T via [uT] (and further, as attested elsewhere Schifano

2018, Pollock 1989, Emonds 1978), just like 18th- and 19th-century BP¹⁰⁸.

- (348) Does T have [uT] wrt. all [+V]? < YES (French, 18th/19th century Brazilian Portuguese)
 - a. Ouves o que diz o sobrinho?
 listen.PRS what say.PRS the nephew
 'Are you listening to what the nephew is saying?'

(1845/19 - ON)

b. O que estás dizendo? what be.PRS say.GER 'What are you saying?'

(1883/19 - OJPR)

(349) a. Antoine ha probablement étudié plus de sujets.

A. have.PRS probably study.PLPF more of subjects

'A. has probably studied more than one subject'

(Adapted from Schifano 2018: 75)

b. Antoine confond probablement le poéme avec une autre.

A. confuse.PRS probably the poem with an other 'A. is probably confusing the poem with another.'

(Adapted from Schifano 2018: 63)

The central element that triggered the change in BP, I hypothesise, was Brazilian children reanalyse (d) in (344). Until the end of the 18th and 19th centuries, the child had a stable grammar, its PLD pointing towards a YES answer to d. in (344) and featuring not only auxiliaries but also lexical verbs valuing temporal interpretation, and preceding certain adverbs. Some external factors, either a principle of economy or language contact (cf. Section 5.1), however, caused BP lexical verbs to lose their temporal interpretation and started triggering only Aspect. Consequently, children lost evidence of [uT] with respect to V. This amounts to saying that whilst Tense and Aspect were syncretic before T became inert, both categories were no longer ambiguous (but only Asp). Hence, with an unstable grammar (viz. YES to d.), children at the end of the 19th century had to reanalyse their data and drift downwards (cf. also Ledgeway 2020: 39), as opposed to from a drift upwards proposed by Biberauer & Roberts (2012: 271), in the hierarchy to find the best solution regarding the PLD. Consequently, the PLD no longer conform with a YES answer to d., and the child restricted the elements probed by T to only auxiliaries, stabilising its grammar with the NO answer. Present-day English children also seem to apply NO to d., given that lexical verbs not only cannot be attracted to T but also do not have a temporal interpretation, differently from auxiliary verbs.

¹⁰⁸During this period, it is possible that BP lexical verbs fitted into Schifano's (2018: 177) PH, for they had temporal interpretations

- (350) Does T bear [uT] wrt. all [+V]? < NO (English, 20th/21st century Brazilian Portuguese)
 - T bears [uT] wrt. v_{aux} .
 - a. *Chove.
 rain.PRS
 'It is raining.'
 - b. Está chovendo.be.PRS rain.GER'It is raining'
- (351) It (*rains) is raining.

The change from synthetic to analytic in BP can be understood as a change from a meso- to a microparameter. In the 18th and 19th centuries BP, T bore an [uT] feature concerning ALL verb heads (mesoparameter), given that those elements that triggered Tense were syncretic with other categories. From the end of the 19th century, when lexical verbs lost temporal interpretation, making T inert, and hence no longer syncretic between T and Asp, only a small class of the larger verb class (viz. auxiliaries) has been probed by T, a case of a microparametric setting, where a certain feature is restricted to only SOME.

A consequence of our proposal is that 18th- and 19th-century BP is akin to Modern French, where both systems exhibit verb movement to T (cf. (349-a)-(349-b)); and as far as the present Tense is concerned, both systems convey present Tense via auxiliary and, most importantly, with a high tendency to convey it via synthetic lexical verbs (cf. discussion on (74)-(78) on the variation between synthetic and analytic present Tense in Modern French). Furthermore, they also display their auxiliary in a high position, as suggested by (352), where the auxiliary etre 'be' in etre en train de present analytic construction precedes high adverbs viz. probably, obligatorily passing by TP.

- (352)Mon chat est ce matin, il estpas rentré probablement **en** a. my cat be.PRS not enter.PTCP this morning it be.PRS probably in dans un endroit au frais mais il fait train de dormir chier train of sleep.INF in a place to.the cold but it make.PRS shit 'My cat did not come back this morning, it probably is sleeping in a cooler place, but it sucks anyway.'
 - (2022/21 Twitter)
 - b. Nous sommes probablement en train de regarder l'une de we be.PRS probably in train of watch.INF the.one of meilleure performance de Neymar. Profitons.

 best performance of N. enjoy.IMP

 'We're probably watching one of N.'s best performances. Let's enjoy.'

 (2020/21 Twitter)

At the same time that the 18th- and 19th-century BP are akin to Modern French, our proposal also correlates the 20th- and 21st-century BP to Modern English. In both systems, there is a wide difference between lexical and auxiliary verbs, not only regarding

verb movement but also temporal nuances. While a present Tense interpretation can be triggered by the analytic construction *it is raining*, it cannot by its synthetic counterpart **it rains*. Additionally, the synthetic counterpart triggers only some aspectual interpretation, akin to Portuguese. If this prediction is correct, this only reinforces the parallelism between Modern English and BP recently proposed in the literature (Roberts 2019b).

Finally, from our proposal in (344), it is tempting to assume that every verbal construction in BP that triggers Tense does so *via* an analytic form, that is, *via* an auxiliary construction. However, this is not entirely true.

Performative Verbs and Present Tense Interpretation: A nanoparametric variation

In Section 3.1, we saw a small set of lexical verbs -viz. performative verb - that seems to be the only kind of synthetic verb that does convey present Tense in contemporary BP, given that the action they convey is simultaneous with speech; that is, the verb is the performance that one does as they speak. To derive this performative flavour, some authors propose that syntax codifies the speaker's intention in functional projections placed above the entire sentence, viz. CP, or in the highest functional projection available - viz. SpeechAct - given that the speaker's intention scopes over the whole sentence. The latter is the position of Cinque (1999: 84), who argues that in languages where illocutionary force is lexicalised via suffixes, these morphemes are the outermost, what is evidence to the author that SpeechAct lexicalises "the highest head of the IP space". Different proposals show that utterance-oriented elements are above IP and even CP. For instance, Corr (2022: 23) shows that utterance-oriented elements such as the vocative Aimamá 'Arghh mum' in (353) precede que 'that' that lexicalises the highest projection of CP¹⁰⁹ viz. Force/Decl. Hence, she argues that one can do things with utterances by licensing elements in a projection she names Utterance Phrase, above CP, "to build a bridge between our inner world and the external one" (Corr 2022: 135).

(353) Ai mamá que me leva el demo! (Asturian dialect of Spain) intj mum that me=take.3sg the devil 'Arghh mum, the devil is taking me away!'

(Corr 2022: 23)

Alternatively, Speas & Tenny (2003: 317) propose the existence of a projection named SpeechAct Phrase dominating CP, hence higher than IP, and which codifies different infor-

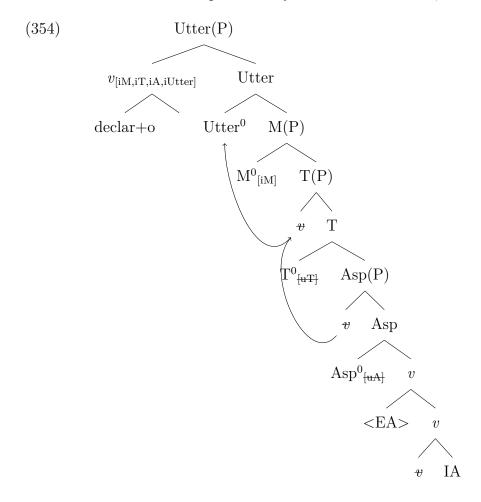
¹⁰⁹After Rizzi's (1997) split CP in (i), other authors proposed a more articulated area, such as Ledgeway (2012: 179) in (ii). Hence, under Corr's (2022) proposal, Utterance Phrase must be above CP in either proposal.

⁽i) [Force [Topic [Focus [Topic [Fin [IP ...]]]]]]

mation regarding the speaker, utterance content, and the hearer. Under other conditions, Puglielli & Frascarelli (2011: 281–2) argue that there should be "an area dedicated to illocutionary force (*i.e.* to the speaker's communicative intention), and that this area is not included in the CP but dominates the whole sentential structure [...] in a node which we will call IFP (Illocutionary Force Phrase)".

Given that performative verbs eminently trigger a speech act interpretation, I adopt the view that they must move to some position to license it, whether it be Speas & Tenny's (2003) Speech Act, Puglielli & Frascarelli's (2011) Illocutionary Force Phrase, or Corr's (2022) Utterance Phrase. Assuming that these positions precede – c-command – the Tense Phrase, it is reasonable to claim that performative verbs' present Tense interpretation is achieved by their movement to the Tense field. If that is true, these verbs behave very differently from 'normal' lexical verbs in contemporary BP, given that in present-day BP, these ordinary lexical verbs move to a low position in the structure (cf. Section 3.2, Figure 3.2).

In this sense, I hypothesise that they are an instance of a nanoparameter for our proposed Parameter Hierarchy: Performative verbs are a small set of lexical verbs that still must move to T to license their present temporal interpretation. Additionally, to license their performative reading, they must move¹¹⁰ to Utterance Phrase (Corr 2022, 2016), for example. A derivation of performative verbs, e.g., declaro 'declare' in Eu vos declaro marido e mulher 'I pronounce you husband and wife', would be like the following:



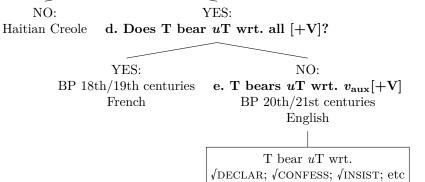
 $^{^{110}}$ This movement, skipping over M (given its [iM] feature), is not a locality violation: Mood clearly intervenes between Utter and v; however, no feature of Mood matches those of Utter's. Following Featural Relativised Minimality (FRM) (Rizzi 2004, Villata et al. 2016: 78), the relation between Utter and v is not prohibited.

Note that in the 18th and 19th centuries, since lexical verbs, in general, moved to T, they did not behave distinctly with respect to performative verbs, *i.e.*, performative verbs were not a case of a nanoparameter during this period because they conformed with the main pattern of the language: Move every verb element to T. Only after T restricted its probing elements to auxiliaries only is that performative verbs, a fossil of the old system, became the exception of the current pattern. Therefore, 20th- and 21st-century BP children convey present temporal interpretation *via* auxiliary verbs (NO answer to d. in (344)) but have stored in their lexicon the small set of lexical items, only 4.8% in our diachronic *corpus* (cf. discussion on (135)), that deviate from the main pattern – performative verbs, hence the following Parameter Hierarchy for the analyticisation process in BP.

(355) The analyticisation process in BP (Final Version) a. Do all probes bear uF? YES: NO: Inuit, Sourthern Tiwa b. Do some probes bear uF? NO: YES:

Chinese

c. Does T bear uT?



Past Tense Interpretation: A Variation?

How categorically do Brazilian children set NO to d. in (344)? I showed that BP has a drastically analytic verb paradigm, with one-to-one equivalents to any Tense. Yet, this property is not spread into others categories. In BP, number (criança-s 'child-PL'), gender (amig-o/-a 'friend-M.SG/-F.SG'), and person and number (come-mos 'eat-1.PL.PRS.IND') markings, for instance, are still analytic. Even Tense is sort of synthetic in the sense that temporal markings appear attached to (auxiliary) verbs. Thus, despite a clear case of analyticisation demonstrated in the previous chapters, it would be empirically inaccurate to claim that BP is categorically analytic.

Discussing the claim that from Latin to Romance there was a shift from a synthetic to an analytic system, Ledgeway (2017) also shows that even Latin, a very synthetic language,

displayed some analytic structures, *viz.* analytic verb forms, independent negative particles, and subjunctive complementisers, to cite a few. The following examples illustrate that.

(356) a. Arma **sunt** humi **inuenta**weapons.NOM.NEUT.PL be.PRS.PL ground.LOC found.NOM.NEUT.PL
'The weapons have been found on the ground.'

(Adapted from Ledgeway 2017: 859)

b. Quem **non** amat, **non** amat whom not she.love.PRS not she.love.PRS 'Those whom she doesn't love she doesn't love.'

(Adapted from Ledgeway 2017: 859)

c. Pompeius suis paredixerat **ut** Caesarus impetum
P.NOM his.man.dat.pl have.pst.forthold that C..gen charge.acc
exiperent
they.receive.sbjv

'P. had subjugated his men so they could escape from C.'s attack.'

(Adapted from Ledgeway 2017: 859)

The same *contra* evidence regarding the categorical shift from synthetic o analytic is present in the Romance Languages. Ledgeway (2012: 12–21, 2017: 858–64) presents various structures that are synthetic in the Romance languages, despite their tendency to analyticity. Thus Ledgeway (2012, 2017) reinforces that analyticity *versus* syntheticity is just a tendency, and cannot be regarded as a *tout court* property. This trendy flavour of analyticity *versus* syntheticity was already attested in Sapir (1921: 135–6) when the author admitted an inclination flavour on this matter in his definition of synthetic languages: "In a synthetic language (Latin, Arabic, Finnish), the concepts cluster more thickly, the words are more richly chambered, but there is a *tendency*, on the whole, to keep the range of concrete significance in the single word down to a moderate compass." (emphasis added).

In light of this, it would be wrong to claim that Brazilian children categorically set NO to d. in (344). As we saw previously, the past Tense interpretation can be triggered by the analytic plus-perfect form but not in all contexts. Whilst for Cyrino (2013: 302) the past Tense cannot be conveyed by an analytic counterpart at all, clearly stated in "the synthetic form marked for past cannot be replaced by a periphrastic form"; in our judgments, however, this replacement is possible: Sentence 1 is interpreted as necessarily happening after and only after sentence 2. In other words, the action of looking daggers at can only have happened in the first place, then someone noticed it or not.

(357) [Você tinha reparado]₁ que [a Maria ficou te olhando torto]₂? you have.PST.IPFV notice.PTCP that the M. stay CL look.GER crooked 'Did you notice that M. was looking daggers at you?'

Combined with the fact that BP past Tense lost temporal interpretation (Cyrino 2013), I hypothesise that this might be a generational matter of variation: In their acquisitional path, (i) some speakers might answer NO to (344), conveying past Tense, among other Tenses, via analytic constructions, whilst (ii) others answer YES to (344) regarding only

T[+PAST], but NO elsewhere, a matter of grammar competition, in the sense of Kroch (1989).

To not extend this interesting variation, I consider another acquisition path that would also assign NO to (344) but sometimes YES. In BP, the language children are taught at schools is very distinct from the language they come equipped with after language acquisition, which is often referred to as a case of diglossia/L2 (Kato 1999, 2013, Mattos e Silva 2006). This is so because Brazilian schools institutionally sanction "certain grammar fossils of previous diachronic stages" as "grammatical" (Kato et al. 2009: §6). Hence, the literate BP speaker often "code-switches between the forms licensed in his/her core grammar and those learned at school" (Kato et al. 2009: §6). In the case of our Parameter Hierarchy in (344), if synthetic Tenses are a grammatical fossil dated from the 18th and 19th centuries, as I suggested, the hypothesis is that schools would validate these constructions, giving rise to a system that reflects the natural acquisition path – NO to (344) –, and another built under stylistic rules via schooling – YES to (344). Evidence of the synthetic future Tense points to that direction (Araújo-Adriano 2020), where BP children naturally acquire an analytic form to convey this Tense, but the higher the level of education, the higher the number of occurrences of the grammatical fossil (only) in written domains. Not to exhaust the subject, the burden of the proof for (355) lies in language acquisition.

5.4 Summary of the Chapter

This chapter presented an explanatory hypothesis for the analyticisation process that BP underwent regarding the present Tense. Drawing on different proposals that correlate analyticisation as loss of movement and that verbs move to license TAM interpretation and repair unstable structures, I suggested that the 18th- and 19th-century BP Tense head had [uT] features regarding all types of verbs. This accounted for why they behaved alike, not only in terms of verb movement but also in terms of being syncretic between Tense and Aspect. After that period, I conjecture that language contact and/or principles of economy led BP children to select a simpler structure to convey Tense, given that in their input, Tense licensing was ambiguous, achieved either by auxiliaries or lexical verbs. Such forcing acts guided children to lose T's [uT] features regarding lexical verbs, a more complex structure feature-wise, restricting T's [uT] to only auxiliary verbs. The consequence of that was that lexical verbs in BP no longer license temporal interpretation, but only auxiliary constructions do. This change was also formalised in terms of the Parameter Hierarchy approach. I suggested that the shift from a synthetic trending system to an analytic trending one took place by a meso- to a microparametric change.

6 Conclusions

This dissertation discussed the analyticisation process that took place in Brazilian Portuguese by the end of the 19th century. More specifically, under the most recent developments of Generative Grammar, I investigated how BP became a language with tendencies towards an analytic present Tense system. In terms of empirical clipping, I analysed BP comedy plays written from the 18th to the 21st centuries.

I split this dissertation into three parts. In the first one, I showed that one satisfactory way for diachronists to achieve adequacy in linguistic theory is by meeting explanatory and methodological adequacy. More specifically, Chapter 1 defended that diachronists can only meet explanatory adequacy if a Parameter Hierarchy approach is adopted (Roberts 2012), where language variation is not part of Universal Grammar, but is the interaction among the three factors of language design, UG itself, linguistic data, and principles of computational efficiency. Under the diachronic discipline, these three factors are formal feature specifications, triggers, and Input Generalisation/Feature Economy. In Chapter 2, I also discussed adequacies within the diachronist field, but I touched on methodological adequacy. I suggested that one fruitful practice to access former generations' grammatical knowledge indirectly lies in investigating (comedy) plays because these are the diachronic documents where authors are most worried about mimicking their generation's language. This is also connected with our claim that the periodisation regarding past language periods seems more accurately represented by the publication date instead of the birth date, at least when comedy plays are the investigation material. Finally, I also claimed that reproducibility assurance is a must regarding the diachronist task, and to achieve that for BP, I made a morphologically annotated corpus of BP from the 18th to the 21st century digitally available on the Tycho Brahe platform.

In the second part of this dissertation, I went through the empirical clipping. Chapter 3 was devoted to exploring some of the properties of the synthetic present in both BP synchrony and diachrony. I showed that whilst in present-day BP the synthetic present only triggers Aspectual interpretations, in the past, the synthetic present also triggered present Tense, that is, an eventuality simultaneous to speech. The only exception to this loss was performative verbs. Furthermore, I also showed that this loss of temporal values is not restricted to the synthetic present but seems to be overspread in contemporary BP. Regarding the main (syntactic) property I addressed, I claimed that these synthetic present verbs moved to a higher position in the clausal structure compared to the present-day BP. In Chapter 4, I investigated the analytic (present) form in BP synchrony and diachrony. The main pattern I found was that this structure has not changed over time: It still triggers temporal in addition to aspectual interpretations, and they also moved to a high position in the clausal structure. The central difference regarded frequency in use. Before the 19th century, whilst auxiliary constructions were part of the BP system, they were barely used. Only by the end of the 19th century was that I attested to an abrupt

rise of the analytic structure to convey temporal nuances.

Finally, in Chapter 5, I presented a proposal to derive both present synthetic verbs and analytic constructions. I adopted two proposals, one where verbs move to license TAM depending upon dedicated paradigms and another where movement is a strategy to repair unstable structures that cannot be either labelled or linearised. In either of them, I attributed the difference in the behaviour of lexical and auxiliary verbs over time to the presence of T's [uT] feature regarding these verbs. I suggested that before the 19th century, T had a relationship with lexical and auxiliary verbs because both triggered, inter alia, temporal interpretation. After that period, however, some forcing acts, either some principles of economy or language contact or even both, as I suggested, made children reanalyse the representational structures that derived temporal sentences. As a consequence, they chose the simpler analytic over the synthetic construction to convey Tense, which turned Tense inert regarding lexical verbs. Thenceforth, T restricted its [uT] feature with respect to synthetic verbs but crucially kept it only for auxiliary verbs. The consequence of that gives rise to BP present-day grammar: Lexical verbs are inert Tense-wise, different from auxiliary verbs that are in a structure that is the pattern to convev.

In a nutshell, this dissertation intended to contribute to the advancement of the description and explanation of linguistic phenomena, in light of the phenomenon of an analytic tendency that arose in BP. In broadening the empirical coverage of an analytic tendency system, this study intended to improve the quality and depth of the descriptions of analytic and synthetic constructions. This study's theoretical foundations study seem to support that the analyticisation process not only triggers loss of (verb) movement but also can induce loss of grammatical features, *viz.* temporal ones.

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A Appendix

Distribution over time of durative interpretation triggered by the BP synthetic present morphology and examples

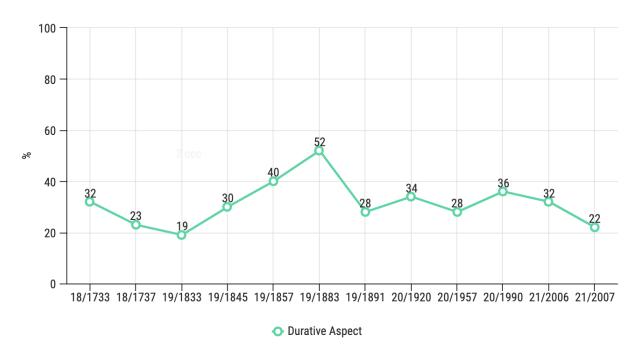


Figure 6.1: Reading of durative Aspect triggered by the synthetic present in BP over time.

- (358) a. Seu tio está outra vez doudo; ainda **crê**, que há your uncle be.PRS other turn mad still believe.PRS that have.PRS no mundo cavaleiros andantes!
 in.the world knights walking
 'Your uncle is once again mad; he still believes that there are walking knights in the world!

 (1733/18 DQSP)
 - b. E aonde **mora** vossa mercê? and to-where live.PRS your grace 'And where do you live?'

(1737/18 - GAM)

c. Ilustríssimo Senhor Muito me alegro de dizer a Vossa most illustrious lord much me rejoice.PRS of say.INF to your

Senhoria que a minha ao fazer d'esta é boa, e que a lordship that the mine to.the do.INF of-this be.PRS good and that the mesma desejo para Vossa Senhoria pelos circunlóquios com que lhe same desire to your lordship by-the circumlocutions with that CL venero.

venerate.PRS

'Most illustrious Lord, I much rejoice in saying to Your Lordship that mine in doing this is good, and that the same I desire to Your Lordship by the circumlocutions with which I venerate you.'

(1833/19 - OJPR)

d. Pobre Carlos, também te **perseguem**.
poor C. also CL chase.PRS
'Poor C., you are also being followed.'

(1845/19 - ON)

e. Na rua do Ouvidor não se **fala** de outra cousa. in the street of the O. not CL speak.PRS of other thing 'One talks about no other subject in O. street.'

(1857/19 - ODF)

f. Como te amo!

how CL love.PRS
'How I love you!'

(1883/19 - CM)

g. Ninguém os respeita! nobody CL respect.PRS 'Nobody respects them!'

(1891/19 - OT)

h. Gosto muito do meu país e detesto as pessoas que like.PRS much of-the my country and hate.PRS the.PL people that falam mal dele!

speak.PRS bad of.it

'I really like my country and I hate people who badmouth it!'

(1920/20 - OCS)

i. **Conheço** o Otávio, ele vai te mandar embora! know.PRS the O. he go.PRS CL send.INF away 'I know O., he is going to fire you!'

(1957/20 - ENUBT)

j. Pois está, Paris atravessa um inverno gelado, cinzento, mas a so be.PRS Paris cross.PRS a winter cold grey but the gente sempre espera confiante a chegada da primavera. people always wait.PRS confident the arrival of-the spring 'So it is, Paris goes through a cold, gray winter, but the people always confidently wait for the arrival of spring.'

(1990/20 - AP)

k. As pessoas que **trabalham** na informática fazem programa. the people that work.PRS in-the informatics make.PRS program 'People who work in IT make programs.'

(2006/21 - MMEUP)

Eu já ando apavorada!
 I already walk.PRS terrified
 'I've already been terrified!'

(2007/21 - FSB)

Distribution over time of generic interpretation triggered by the BP synthetic present morphology and examples

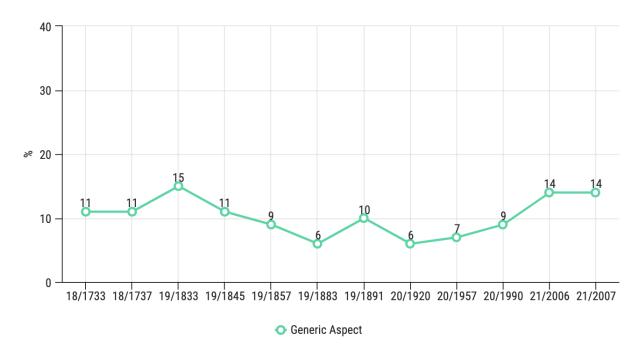


Figure 6.2: Reading of generic Aspect triggered by the synthetic present in BP over time

(359) a. E o meu burro só tem asas nos pés para fugir. and the my donkey only have.PRS wings in-the feet to flee.INF 'And my donkey only has wings in its feet in order to flee.'

(1733/17 - DQSP)

b. porque o que não **mata**, engorda. because the that not kill.PRS fatten.PRS 'Because that which does not kill us makes us fatter.'

(1737/17 - GAM)

c. Eu, Ilustríssimo Senhor juiz de paz, sou senhor de um sítio I most illustrious lord judge of peace be.PRS lord of a farm que está na beira do rio, aonde dá muito boas that be.PRS in-the edge of-the river to-where give.PRS many good

bananas e laranjas.

bananas and oranges

'I, Most Illustrious Sir justice of the peace, am the lord of a farm which is by the river, where a number of good bananas and oranges grow.'

(1883/19 - OJPR)

d. No convento não se **demoram** mulheres. in-the convent not CL take.long.PRS women 'The women do not take long in the convent.'

(1845/19 - ON)

e. Sem isto não se **namora**. without this not CL date.PRS 'Without this, one cannot date.'

(1857/19 - ODF)

f. Aquilo é que os alemães **chamam** "ein Schafskopf!" that-one be.PRS that the german call.PRS ein Schafskopf 'That is what the German call "ein Schafskopf!"

(1883/19 - CM)

g. O mundo dá tantas voltas! the world give.PRS so-many turns 'What goes around comes around.'

(1891/19 - OT)

h. O amor **faz** milagres! the love make.PRS miracles 'Love makes miracles.'

(1920/20 - OCS)

i. Tu mente muito.you lie.PRS much'You lie a lot.'

(1957/20 - ENUBT)

- j. Quando a luz vermelha **acende**, sua função é when the light red turn.on.PRS your function be.PRS examinar toda a bagagem.
 examine.INF all the baggage
 'When the red light turns on, you have to examine all the baggage.'

 (1990/20 AP)
- k. Porque mãe sempre **dá** um jeito. because mother always give.PRS a way 'Because mother always finds a way.'

(2006/21 - MMEUP)

l. E como é que ele se chama? and how be.PRS that he CL call.PRS 'And what is his name?'

(2007/21 - FSB)

Distribution over time of habitual interpretation triggered by the BP synthetic present morphology and examples

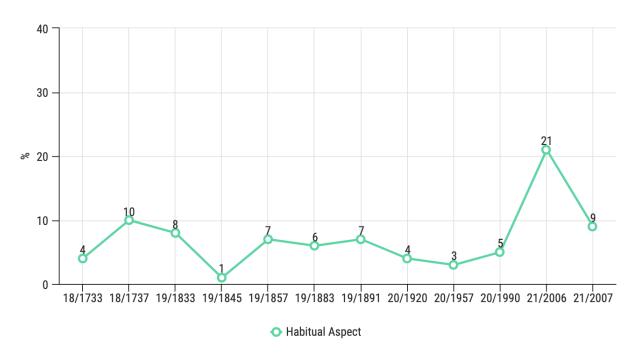


Figure 6.3: Reading of habitual Aspect triggered by the synthetic present in BP over time

- (360) a. Dizei-me por vida vossa, que **dizem** de mim por esta terra? say.IMP=CL by life your that say.PRS of me by this earth 'Tell me swearing on your life, what do they say about me in this land?' (1733/18 DQSP)
 - b. Pois acaso ele dorme na capoeira?
 because chance he sleep.PRS in-the hen.house
 'Then does he sleep in the hen house by any chance?'

(1737/18 - GAM)

- c. De vez em quando **temos** nossos presentes de galinhas, bananas, of turn in when have.PRS our present of chickens bananas ovos, etc., etc. eggs etc. etc.
 - 'From time to time we have our gifts of chickens, bananas, eggs, etc. etc.' (1833/19 OJPR)
- d. ninguém vai aoteatro, à exceção and of there nobody go.PRS to-the theatre to-the exception of friar Mauricio, que **frequenta** a plateia de casaca e cabeleira para Μ. that frequent.PRS the audience of coat and wig to esconder a coroa. hide.INF the crown

'And no one there goes to the theater, except for friar M., who attends the

theater wearing a coat and a wig to hide the crown.'

(1845/19 - ON)

e. **Fala** mal de todo o mundo. speak.PRS bad of all the world 'Badmouths everyone.'

(1857/19 - ODF)

f. E a mãe cada vez se **veste** pior. and the mother each turn CL dress.PRS worse 'And mother is dressing worse each time.'

(1883/19 - CM)

g. **Diz** que é o melhor colégio do Rio de Janeiro. say.PRS that be.PRS the best college in.the R. of J. 'They say it is the best high school in R. de J.'

(1891/19 - OT)

h. *Ele vem* sempre aqui ... he come.PRS always here 'He always comes here...'

(1920/20 - OCS)

i. Está com os pulmão arrebentando mas bebe bem. be.PRS with the.PL lung burst but drink.PRS well 'His lungs are bursting but he drinks well.'

(1957/20 - ENUBT)

j. Ela **toma** diet coke como quem bebe água! she take.PRS diet coke like who drink.PRS water 'She drinks diet coke as if it were water!'

(1990/20 - AP)

k. A pessoa que **corre** está apressando a morte, está correndo the person that run.PRS be.PRS hurry.GER the death be.PRS run.GER para chegar na cova mais cedo.

to arrive.INF in.the grave more early 'The person who runs is hurrying death, is running to get to the grave earlier.'

(2006/21 - MMEUP)

l. Mas, eu **chamo** ele de Leno! but I call.PRS he of L. 'But I call him L.'

(2007/21 - FSB)

Distribution over time of prospective interpretation triggered by the BP synthetic present morphology and examples

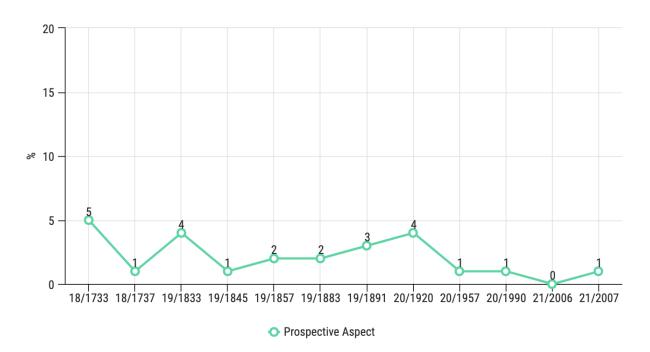


Figure 6.4: Reading of prospective Aspect triggered by the synthetic present in BP over time

(361) a. **Pergunto** mais, a quanto está a canada de vinho? ask.PRS more the how-much be.PRS the canada of wine 'How much is the wine canada (= around two litters)?'

$$(1733/18 - DQSP)$$

b. Nize cruel, eu me **escondo** na capoeira, que só o lugar das N. cruel I CL hide.PRS in-the hen.house that only the place of-the penas é o centro de um amante infeliz. (Mete-se na feathers be.PRS the center of a lover unhappy go.PRS to.the capoeira).

hen.house

'Cruel N., I will hide in the hen house, for only the place of feathers is the center for an unhappy lover. (Goes into the hen house)'

$$(1737/18 - GAM)$$

c. Para Vossa Senhoria não pensar que minto, lhe **conto** uma to your lordship not think.INF that lie.PRS CL count.PRS a história.

story

'So Your Lordship does not think that I lie, I will tell you a story.'

(1833/19 - OJPR)

- d. E eu para mostrar o meu desinteresse rasgo esta escritura.
 and I to show.INF the my disinterest rip.PRS this deed (Rasga e à parte).
 rip.PRS and to-the part
 'And to show my disinterest, I will rip apart this deed. (Rip it and aside)' (1845/19 ON)
- e. Eu te suplico! Não lhe digas nada.

 I CL supplicate.PRS not CL say.IMP anything 'I beg of you! Do not tell them anything.'

(1857/19 - ODF)

- f. Pois bem, minha filha, tenhaou não razão, só te querbecause well my daughter whether have.SBJV or not reason only CL igual pedido á facotua $m\tilde{a}e$. uma cousa. e ask. PRS a thing and do.PRS equal request to-the your mother not exijamde mim impossíveis. demand.IMP of me impossible 'Well my daughter, whether you are right or not, I only ask you one thing and ask the same of your mother. Do not demand from me what is impossible.' (1883/19 - CM)
- g. Vossa senhoria não sabe quem eu sou, mas eu le **digo**. Sinhô, your lordship not know.prs who I be.prs but I CL tell.prs sir eu sou fazendeiro De São João do Sabará.

 I be.prs farmer from S. J. of.the S.

 'Your Lordship, you do not know who I am, but I will tell you. Sir, I am a farmer from S. J. do S.'

(1891/19 - OT)

h. Que faz Senhor aqui?/ Eu explico, minha senhora. È explain.PRS my what do.PRS the sir here I lady be.PRS que eu queria falar com oagente antes de ir that I want.IPFV speak.INF with the agent before of go.INF to ele precisar de alguma coisa... circo. Pode circus can.PRS he need.INF of some 'What do you do here, sir? / I will explain, my lady. I wanted to talk to the agent before going to the circus. He might need some thing.

- j. Eu te **dou** um Lexamil francês. (As duas tomam suas bolas com I CL give.PRS a L. french the two take.PRS their balls with café.) coffee

'I will give you a French L. (Both of them take the pills with coffee.)' (1990/20-AP)

k. Aí eu me **pergunto**, tem mãe um sujeito desse? there I CL ask.PRS have.PRS mother a individual of-this 'Then I ask, does an individual like this have a mother?'

(2006/21 - MMEUP)

1. Já vou! Que saco! (Fulana [a personagem] joga a already go.PRS what bag F. the character throw.PRS the vassoura no chão e sai para atender).

broom on-the floor and leave.PRS to answer
'I'm coming already! What a bore! (F. throws the broom on the floor and leaves to answer the door.)'

(2007/21 - FSB)

Distribution over time of imperative interpretation triggered by the BP synthetic present morphology and examples

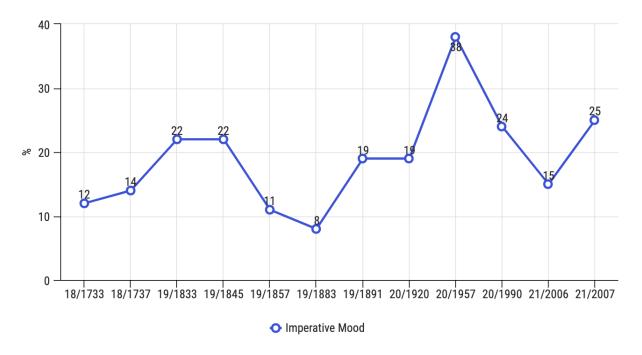


Figure 6.5: Reading of imperative Mood triggered by the synthetic present in BP over time

(362) a. **Espera**, cerdoso bruto, que te farei humilhar aos pés wait.PRS bristly brute that CL make.FUT humiliate.INF to-the feet desta deidade.

of-this goddess
'Just you wait, you bristly brute, that I will make you humiliate yourself

under the feet of this goddess." (cf. espere 'wait.IMP')

(1733/18 - DQSP)

b. **Vai** buscar o meu capote, e cobre-o, que está go.PRS search.INF the my overcoat and cover.PRS=CL that be.PRS tremendo o miserável.

shake.GER the miserable

'Go fetch my overcoat and cover him, for this miserable being is shivering.' (cf. $v\acute{a}$ 'go.IMP')

(1737/18 - GAM)

Olá, Agostinho, **leva** c. estas enxadas lá para dentro, e vaihello A. take.PRS these hoes there to inside and go.PRS botareste café nosol.put.INF this coffee in-the sun 'Hello A., take these hoes inside and go place the coffee under the sun.' (cf. leve 'take.IMP')

(1833/19 - OJPR)

- d. Juca, toma sentido;
 - J. take.PRS sense

'J. get yourself together.' (cf. tome 'take.IMP')

(1845/19 - ON)

e. **Chega** aqui, Pedro!

arrive.PRS here P.

'Come here, P.!' (cf. cheque 'arrive.IMP')

(1857/19 - ODF)

f. **Traz** a carta do Doutor Seabra. bring.PRS the letter of the doctor S.

'Bring Doctor S.'s letter.' (cf. traga 'bring.IMP')

(1883/19 - CM)

- g. **Vem**, vem, não chora, dá cá a mão!
 come.PRS come.PRS not cry.PRS give.PRS here the hand
 'Come, come, do not cry, give me your hand!' (cf. venha 'come.IMP')
 - (1891/19 OT)
- h. **Faz** favor de me dar as laranjas ... do.PRS favor of CL give.INF the oranges

'Do me a favor and give me the oranges.' (cf. faça 'do.IMP')

(1920/20 - OCS)

i. Tu toma cuidado por aí. (Saem) you take.PRS care by there 'You be careful out there.' (cf. tome 'take.IMP')

(1957/20 - ENUBT)

j. Você **vê** como fala, hein? you see.PRS how speak.PRS huh 'Mind your language, ok?' (cf. veja 'see.IMP')

(1990/20 - AP)

k. **Acompanha** comigo. accompany.PRS with.me 'Follow me.' (cf. acompanhe 'accompany.IMP')

(2006/21 - MMEUP)

l. E avisa para o outro lá, que vai ter o troco! and warn.PRS to the other there that go.PRS have.INF the change 'And tell the them that there will be revenge!' (cf. avise 'warn.IMP') (2007/21 – FSB)

Distribution over time of subjunctive interpretation triggered by the BP synthetic present morphology and examples

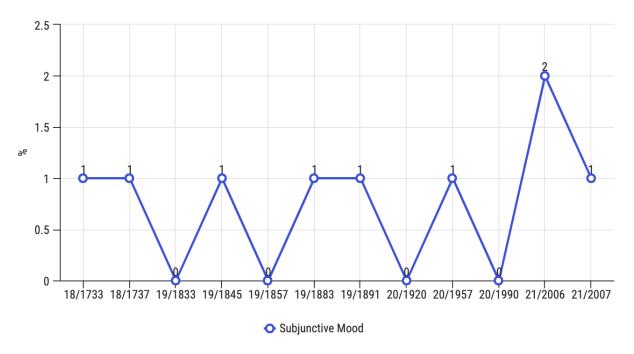


Figure 6.6: Reading of subjunctive Mood triggered by the synthetic present in BP over time

(363) a. Eu não nego, que há deidades, a quem se deve I not deny.PRS that have.PRS deities to who CL must.PRS render tributo no templo da formosura.

yield.INF tribute in-the temple of-the beauty
'And I do not deny that there are deities to whom one must pay tribute in the temple of beauty.' (cf. haja 'have.SBJV')

(1733/18 - DQSP)

b. Ai de mim, que se Dom Fuas **vê** a Dom Gilvaz, fará o seu alas of me that if Don F. see.PRS to Don G. do.FUT the your

ciúme verdadeiro! jealousy true

'Alas, if Don F. sees Don G., he will render his jealousy true!' (cf. vir 'see.SBJV')

(1737/18 - GAM)

c. E desgraçada de vós se não me **obedeceis**, a more! and disgrace of you if not CL obey.PRS the death 'And if you do not obey me, you will be disgraced by death!' (cf. obedecer 'obey.SBJV')

(1845/19 - ON)

- d. Permita que **cumprimento** sua irmã.

 permit.IMP that greet.PRS your sister

 'Allow me to greet your sister.' (cf. cumprimente 'greet.SBJV')

 (1857/19 ODF)
- Se o pretendente é doMaranhão, a mulher do e. if the suitor be.PRS from-the M. the woman of-the ministro não passa semlencode labirinto/ E se é minister not pass.PRS without handkerchief of labyrinth and if be.PRS as quartinhas, o azeite de cheiro e Bahia. lá from-the B. there come.PRS the jugs the oil of smell and os saquis.

the marmosets

'If the suitor is from M., the minister's woman will not pass without a Hardanger embroidery handkerchief/ And if he is from B., there comes the jugs, the palm oil and the marmosets.' (cf. for 'be.SBJV')

(1883/19 - CM)

- f. Se diz mais uma palavra, apito!

 if say.PRS more one word whistle.PRS

 'I will whistle if you speak another word!' (cf. disser 'say.SBJV')

 (1891/19 OT)
- g. $H\acute{a}$ de ser bonito se eles não $v\^{e}m$ nesse trem ... have.PRS of be.INF pretty if they not come.PRS in-this train 'They will see what I will do, if they do not arrive in this train.' (cf. vierem 'come.SBJV')

- h. Se eu **perco** meu emprego como é que eu fico? if I lose.PRS my job how be.PRS that I stay.PRS 'If I lose my job, how will I be?' (cf. perder 'lose.SBJV') (1957/20 – ENUBT)
- i. Pouca gente gosta, se isso te **serve** de consolo.

 few people like.PRS if this CL serve.PRS of consolation

 'Few people like it, if this serves as consolation.' (cf. servir 'serve.SBJV')

 (1990/20 AP)

j. Porque se eu **vejo** na hora eu ia tirar satisfações com because if I see.PRS in-the hour I go.IPFV take.INF satisfactions with a mocinha que me entregou. the little.girl that CL deliver.PST 'Because if I had noticed at that moment, I'd have had a talk to the girl who snitched on me.' (cf. visse 'see.SBJV')

(2006/21 - MMEUP)

k. Olha Beltrana, se você quer continuar com ele, vou te look.PRS B. if you want.INF continue.INF with he go.PRS CL dar umas dicas!
give.INF some tips
'Look B., if you want to stay with him I will give you some tips.' (cf. quiser 'want.SBJV')

(2007/21 - FSB)

Distribution over time of future interpretation triggered by the BP synthetic present morphology and examples

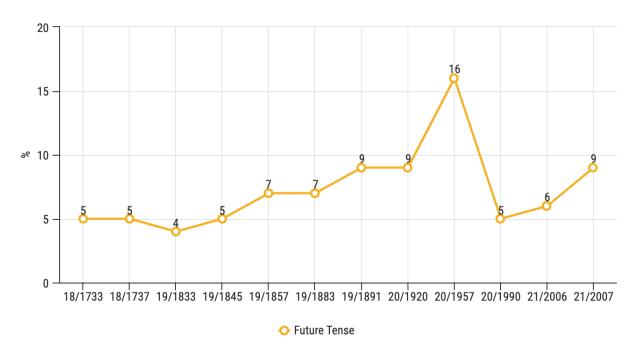


Figure 6.7: Reading of future Mood triggered by the synthetic present in BP over time

(364) a. Pois já que te **ausentas**, ó meu amado Sancho, because since that CL absent.PRS oh my loved S. despeçamo-nos cantando.

say.goodbye.IMP=CL sing.GER

'For since you are going away, o my loved S., let us say goodbye singing.'

(cf. vais te ausentar 'go.PRS CL absent.INF')

(1733/18 - DQSP)

b. Vereis vós, tramposinha, que fim **leva** o Alecrim. see.FUT you dirty.little that end take.PRS the A. 'You will see, you little dirty thing, what end A. will have.' (cf. vai levar 'go.PRS take.INF')

(1737/18 - GAM)

c. Vossa Senhoria **vai** amanhã à cidade? you lordship go.PRS tomorrow to-the city 'Is Your Lordship going into town tomorrow?' (cf. vai ir 'go.PRS take.INF'/irá 'go.FUT')

(1833/19 - OJPR)

d. Em breve matam-lhe a inteligência, e fazem do homem in brief kill.PRS=CL the intelligence and make.PRS of-the man pensante, máquina estúpida... thinking machine stupid 'Soon they will put out his intelligence and make of the thinking man a stupid machine.' (cf. vão matar 'go.PRS kill.INF')

(1845/19 - ON)

- e. Decididamente **volto** a Paris, meus senhores!
 decidedly return.PRS to Paris my sirs
 'I will decidedly return to Paris, my lords!' (cf. vou voltar 'go.PRS return.INF')
 (1857/19 ODF)
- f. E porque não se **casa** com ela?

 and because not CL marry.PRS with her

 'And why won't you marry her?' (cf. vai se casar 'go.PRS CL marry.INF')

 (1883/19 CM)
- g. Olha que tu **apanha** aqui mesmo!
 look.PRS that you catch.PRS here even
 'Look, I will beat you up right here!' (cf. vai apanhar 'go.PRS beat.INF')
 (1891/19 OT)
- h. Daqui a pouco **passa** outro trem para a cidade. from here to little pass.PRS other train to the city 'Another train bound to the city will pass soon.' (cf. vai passar 'go.PRS pass.INF')

- i. Tião **fura** a greve nada!

 T. pierce.PRS the strike nothing

 'T. won't break the strike.' (cf. vai furar 'go.PRS break.INF')

 (1957/20 ENUBT)
- j. *Mil*, *duzentos e cinquenta para cada uma*, *o resto ele* thousand two.hundred and fifty to each one the rest he

paqa semana que vem.

pay.PRS week that come.PRS

'A thousand two hundred and fifty to each of you. He will pay the rest next week.' (cf. vai pagar 'go.PRS pay.INF')

(1990/20 - AP)

- k. Daqui a pouco começa a enceradeira!
 from-here to little start.PRS the polisher
 'The floor polisher will start soon!' (cf. vai começar 'go.PRS start.INF')
 (2006/21 MMEUP)
- 1. Amanhã eu passo no hospital!
 tomorrow I pass.PRS in-the hospital
 'I will go to the hospital tomorrow.' (cf. vou passar 'go.PRS pass.INF')
 (2007/21 FSB)

BP diachronic data of activity predicates with temporal interpretation triggered by synthetic present morphology after the 19th century

- (365) a. se eu passasse alguns anos em Paris, talvez também fizesse if I pass.COND some years in Paris maybe also make.COND do meu país o mau juízo que o Senhor faz. of-the my country the bad judgment that you sir make.PRS 'if I spent some years in Paris, maybe I would also make the same bad judgment of my country as you do.' (cf. está fazendo 'be.PRS make.GER') (1920/20 OCS)
 - b. A Marcelina **vem** aí ...
 the M. come.PRS there
 'There comes M....' (cf. está vindo 'be.PRS come.GER')

 (1920/20 OCS)
 - c. A porcaria deste colarinho é que me **atrasa**! the junk of-this collar be.PRS that CL delay.PRS 'This shitty collar is what is making me late!' (cf. está me atrasando 'be.PRS CL delay.GER')

- d. Aí vem a patroa! there come.PRS the boss 'There comes the mistress!' (cf. está vindo 'be.PRS come.GER') (1920/20 – OCS)
- e. Aqui onde me vês.
 here where CL see.PRS
 'Here where you can see me.' (cf. está me vendo 'be.PRS CL see.GER')
 (1920/20 OCS)
- f. Como Marcelina **demora** a passar o meu vestido! how M. take.long.PRS to pass.INF the my dress 'M. is too slow at ironing my dress!' (cf. está demorando 'be.PRS take.long.GER')

(1920/20 - OCS)

g. Como **vê**, meu sogro, não posso acompanhá-lo. how see.PRS my father.in.law not can.PRS accompany.INF=CL 'As you can see, my father-in-law, I cannot accompany you.' (cf. está vendo 'be.PRS see.GER')

(1920/20 - OCS)

- h. $m{D\tilde{a}o}$ cada soco um no outro ... give.PRS each punch one in-the other 'They throw such punches at each other...' (cf. estão dando 'be.PRS give.GER') (1920/20 OCS)
- i. \acute{E} o Ernani, que **regressa** vitorioso. be.PRS the E. that return.PRS victorious 'It is E., who returns victorious.' (cf. está regressando 'be.PRS return.GER') (1920/20 – OCS)
- j. Ele aí **vem** carregado de triunfo ... he there come.PRS carried of triumph 'There he comes, full of triumphs...' (cf. está vindo 'be.PRS come.GER') (1920/20 – OCS)
- k. Ele **vai** que nem um raio. he go.PRS that and-not a lightning.bolt 'He goes like lightning.' (cf. está indo 'be.PRS go.GER') (1920/20 – OCS)
- l. Está vendo como ela **funciona** agora bem?

 be.PRS see.GER as she function.PRS now well

 'Can you see how it is working fine now?' (cf. está funcionando 'be.PRS work.GER')

(1920/20 - OCS)

m. Estou lendo nos seus olhos o mal estar que lhe **causa** a be.PRS read.GER in-the your eyes the bad being that CL cause.PRS the minha presença.

my presence

'I can read in your eyes the uneasiness my presence causes in you.' (cf. est'a lhe causando 'be.PRS CL cause.GER')

(1920/20 - OCS)

n. Eu sei o que **faço** ...
I know.prs the what do.prs
'I know what I do.' (cf. estou fazendo 'be.prs make.ger')

(1920/20 - OCS)

o. $\it Exagera$.

exaggerate.PRS

'You are exaggerating.' (cf. $est\'{a}$ exagerando 'be.PRS exaggerate.GER') (1920/20 – OCS)

p. $Isso\ \acute{e}$ o que $voc\^{e}\ \emph{diz}$. that be.PRS the what you say.PRS

'That is what you are saying.' (cf. está dizendo 'be.PRS say.GER')
(1920/20 – OCS)

q. Lá **vem** o trem!

there come. PRS the train

'There comes the train!' (cf. está vindo 'be.PRS come.GER')

(1920/20 - OCS)

r. **Leva** aí tudo?

take.PRS there everything

'Are you taking everything?' (cf. está levando 'be.PRS take.GER')

(1920/20 - OCS)

s. *Não me reconhece?*

not CL recognise.PRS

'Can't you recognise me?' (cf. está me reconhecendo 'be.PRS CL recognise.GER')

(1920/20 - OCS)

t. Não posso acreditar na sinceridade de quem assim **fala**.

not can.PRS believe.INF in-the sincerity of who thus speak.PRS
'I cannot believe in the sincerity of one who speaks this way.' (cf. está falando 'be.PRS speak.GER')

(1920/20 - OCS)

u. Não sei de que se **queixa** Ritinha! not know.PRS of what CL complain.PRS R.

'I don't understand what you are complaining about, R.!' (cf. está se queixando 'be.PRS CL complain.GER')

(1920/20 - OCS)

v. Não sou eu quem o **chama** aqui.

not be.PRS I who CL call.PRS here

'I am not the one who summoned you here.' (cf. está chamando 'be.PRS call.GER')

(1920/20 - OCS)

w. Não **vê**!

not see.PRS

'Can't you see it?' (cf. está vendo 'be.PRS see.GER')

(1920/20 - OCS)

x. Por que choras, minha filha?

by that cry.PRS my daughter

'Why are you crying, my daughter?' (cf. está chorando 'be.PRS cry.GER')

(1920/20 - OCS)

y. Que **faz** então que não se vai aprontar? what do.PRS so that not CL go.PRS get.ready.INF 'So what are you doing? Why aren't you getting ready?' (cf. está fazendo 'be.PRS make.GER')

Que fazeste vestido aqui? $\mathbf{z}.$ what do.PRS this dress here 'What is this dress doing here?' (cf. está fazendo 'be.PRS make.GER') (1920/20 - OCS)(366)Continuation Porque me despreza, Ernani? because CL despise.PRS E. 'Why are you despising me, E.?' (cf. está fazendo 'be.PRS make.GER') (1920/20 - OCS)b. Senhor aqui? Que faz0 what do.PRS the sir here? 'What are you doing here, sir?' (cf. está fazendo 'be.PRS make.GER') (1920/20 - OCS)Que fazo senhor! c. what do.PRS the sir 'You are doing what?' (cf. está fazendo 'be.PRS make.GER') (1920/20 - OCS)Que faz d. por aqui? what do.PRS by here 'What are you doing around here?' (cf. está fazendo 'be.PRS make.GER') (1920/20 - OCS)Que **fazes** no jardim a esta hora, minha filha? e. what do.PRS in-the garden to this hour my daughter 'What are you doing in the garden at this hour, my daughter?' (cf. está fazendo 'be.PRS make.GER') (1920/20 - OCS)f. Que mais **espera**? what more expect.PRS 'What else are you expecting?' (cf. está esperando 'be.PRS expect.GER') (1920/20 - OCS)Que ouço? g. what hear.PRS 'What do I hear?' (cf. estou ouvindo 'be.PRS hear.GER') (1920/20 - OCS)h. Quem é que me **amarrota**? who be.PRS that CL wrinkle.PRS 'Who is wrinkling me?' (cf. está me amarrotando 'be.PRS CL wrinkle.GER') (1920/20 - OCS)por causa doutro dia? i. Vocês **falam** you speak.PRS by cause of-other day

'Are you saying that because of the other day?' (cf. estão falando 'be.PRS

(1920/20 - OCS)

say.GER')

j. Tu diz que é meu amigo e **fala** assim? Está bom. you say.PRS that be.PRS my friend and speak.PRS thus be.PRS good 'You say that you are my friend and are speaking this way? Ok.' (cf. está falando 'be.PRS speak.GER')

(1957/20 - ODF)

k. Lá **vem** o outro dizendo que quer bem! there come.PRS the other say.GER that want.INF good 'There comes the other one saying that he means well.' (cf. está vindo 'be.PRS come.GER')

(1957/20 - ODF)

l. Lá vem o $Juv\hat{e}ncio~(20/1957)$ there come.PRS the J. 'There comes J.' (cf. $est\acute{a}~vindo$ 'be.PRS come.GER')

(1957/20 - ODF)

m. Eu olho para você e não consigo ver aquelas mulheres que I look.PRS to you and not can.PRS see.INF those women that foram tão importantes para mim, numa época da minha vida. be.PST so important to me in-a time of-the my life 'I look at you and cannot see the women who were so important to me, at a time of my life.' (cf. estou olhando 'be.PRS look.GER')

(1990/20 - AP)

B Appendix

BP diachronic data of present Tense interpretation triggered by analytic present morphology over time (by play).

(367) estar.PRS + gerund

a. A Senhora Dona Nize **está zombando**, e aquilo nela é the lady misses N. be.PRS mock.GER and that.one in-her be.PRS galantaria. gallantry

'Lady N. is mocking and that is her gallantry.'

(1737/18 - GAM)

b. Sinto em mim vários efeitos/ Há bem pouco para cá,/ E o feel.PRS in me various effects have.PRS well little to here and the meu coração no peito está fazendo ta, ta, ta.

my heart in-the chest be.PRS do.GER ta ta ta
'I feel in me several effects/ In a little while/ And my heart in the chest is going ta, ta, ta...

(1798/18 - VL)

c. Pensava que já não podia falar co'o Senhor José, think.IPFV that already not can.IPFV speak.INF with-the sir J. que está esperando-me debaixo dos cafezeiros. that be.PRS wait.GER=CL under the coffee.trees 'I thought I could no longer speak to Mr. J., who is waiting for me under the coffee trees.

(1833/19 - OJPR)

d. Parece-me que **estou vendo** o Dom Abbade horrorisado. seem.PRS=CL that be.PRS see.GER the don A. horrified 'It seems to me that I can see a horrified Don A.'

(1845/19 - ON)

e. Dona Maria, sabe, sua filha **está zombando**misses M. know.PRS your daughter be.PRS mock.GER
desapiedadamente de mim.
without.pity of me
'Misses M., you know, your daughter is mocking me without any pity.'
(1857/19 – ODF)

f. O que estás dizendo? the what be.PRS say.GER

'What are you saying?'

(1883/19 - CM)

g. Pois se eu lhe **estou dizendo** que sou um maluco de muito because if I CL be.PRS say.GER that be a madman of much juizo! judgment

'I am telling you, I am a very reasonable madman.'

(1891/19 - OT)

h. Que tem Nair que está chorando? what have N. that be.PRS cry.GER 'Why is N. crying?'

(1920/20 - OCS)

i. Ei, Tião, está me ouvindo? hey T. be.PRS CL hear.GER 'Hey T., can you hear me?'

(1957/20 - ENUBT)

j. Sabe que eu **estou** até te **estranhando**, Selma ... know.prs that I be.prs until CL strange.GER S. 'You know, I am even feeling something weird about you, S.'

(1990/20 - AP)

k. **Está insinuando** alguma coisa, sua palhaça? be.PRS insinuate.GER some thing your clown 'Are you insinuating anything, you clown?'

(2006/21 - MMEUP)

1. Você está falando isso de despeito! you be.PRS speak.GER that of spite 'You are saying that out of spite!'

(2007/21 - FSB)

BP diachronic data of present Tense interpretation triggered by analytic present morphology and (non-)realisation of subjects over time (by play).

(368) Subjects of estar.GER + gerund

a. **pro** estou ardendo com zelos!

be.PRS burn.GER with zeal

'I am burning with zeal.'

(1737/18 - GAM)

b. sabe o que **pro** está dizendo?! know.PRS the what be.PRS say.GER 'Do you know what you are saying?'

(1845/19 - ON)

c. **pro** já está deitando o chapéu.
already be.PRS lay.GER the hat
'He is already laying the hat.'

(1857/19 - ODF)

d. O que **pro** estás dizendo? the what be.PRS say.GER 'What are you saying?'

(1883/19 - CM)

e. **pro** estás manquejando? be.PRS limp.GER 'Are you limping?'

(1891/19 - OT)

f. Se soubesse como **pro** está sendo cruel! if know.COND how be.PRS be.GER cruel 'If only you knew how cruel you are being!'

(1920/20 - OCS)

g. **pro** está me entendendo? be.PRS CL understand.GER 'Do you understand me?'

(1957/20 - ENUBT)

h. **pro** estão rindo de quem? be.PRS laugh.GER of who 'Who are you laughing at?'

(1990/20 - AP)

i. Agora pro está implicando com a quantidade de banho que eu now be.PRS implicate.GER with the quantity of bath that I tomo, é?
 take.PRS be.PRS
 'Now you are taking a dislike to the amount of showers I take, is that it?' (2006/21 – MMEUP)

j. **pro** estou te falando como amiga, mas, se você não quiser be.PRS CL speak.GER how friend but if you not want.FUT.SBJV ouvir!

hear.INF

'I am speaking as a friend but if you don't want to listen to me!'

(2007/21 - FSB)

BP diachronic data of present Tense interpretation triggered by analytic present morphology and the semantic role of subjects over time (by play).

- (369) estar.PRS + gerund and [+ANIMATE; +HUMAN] subjects
 - a. **A Senhora Dona Nize** está zombando, e aquilo nela é the lady misses N. be.PRS mock.GER and that-one in-her be.PRS galantaria.

'Lady N. is mocking and that is her gallantry.'

(1737/18 - GAM)

b. Pensava que já não podia falar co'o **Senhor José**, think.IPFV that already not can.IPFV speak.INF with-the sir J. que está esperando-me debaixo dos cafezeiros. that be.PRS wait.GER=CL under the coffee.trees 'I thought I could no longer speak to Mr. J., who is waiting for me under the coffee trees.'

(1833/19 - OJPR)

c. Sabe o que (tu/você) está dizendo?! know.prs the what you be.prs say.ger 'Do you know what you are saying?'

(1845/19 - ON)

d. Mana Carlotinha, **Henriqueta** está lhe chamando para dizer-lhe sister C. H. be.PRS CL call.GER to say.INF=CL adeus. goodbye

'Sister C., H. is summoning you to say goodbye.'

(1857/19 - ODM)

e. Venha, **mamãe** está nos esperando. come.IMP mom be.PRS CL wait.GER 'Come, mom is waiting for us.'

(1883/19 - CM)

f. \acute{E} verdade que (eu) estou suando em bica! be.PRS true that I be.PRS sweat.GER in tap 'I is true that I am sweating a lot!'

(1891/19 - OT)

g. **Quem** lhe está perguntando alguma coisa? who CL be.PRS ask.GER some thing 'Who is asking you anything?'

(1920/20 - OCS)

h. **A senhora** está sentindo alguma coisa? the lady be.PRS feel.GER some thing 'Are you feeling anything, lady?'

(1957/20 - ENUBT)

i. **Vocês** estão delirando. you be.PRS rave.GER 'You are raving.'

(1990/20 - AP)

j. E para provar que (eu) não estou mentindo, o livro tem and to prove.INF that I not be.PRS lie.GER the book have.PRS pedaço de jornal, e-mail, foto, bilhete e tudo o mais. piece of newspaper e-mail photo note and all the more 'And to prove that I am not lying, the book has newspaper clips, e=mails, photos, notes, and everything else.'

(2006/21 - MMEUP)

k. Pois eu não estou contando para vocês que agora ele está me because I not be.PRS count.GER to you that now he be.PRS CL seguindo para realizar sua fantasia de transar comigo? follow.GER to realize.INF his fantasy of have.sex.INF with.me 'I am not about to tell you that he is now following me to fulfill his fantasy of having sex with me.'

(2007/21 - FSB)