

Research Article

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The Perfect in (Brazilian) Portuguese: A Functional Discourse Grammar View

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Abstract: In most Germanic and Romance languages the present perfect has developed from a resultative meaning via an anterior into absolute past. In Functional Discourse Grammar terms this corresponds to the grammaticalization of a phasal aspectual operator at the layer of the Configurational Property, via a relative tense operator at the layer of the State-of-Affairs, into an absolute tense operator at the layer of the Episode. This is what happened in Romance languages, such as French and Italian, while Peninsular Spanish is developing in the same direction, without as yet having fully reached the absolute past stage. The Portuguese present perfect, however, is different as it does not express resultative aspect, relative past or absolute past meaning but rather the iteration or continuity of an event from some past moment onward until after the moment of speaking. A further idiosyncrasy of the perfect in Portuguese is that the auxiliary is based on Latin TENERE rather than HABERE, as is the case in the other Romance languages. This paper describes the semantic and the morphosyntactic aspects of the grammaticalization of the (Brazilian) Portuguese perfect in diachrony and synchrony. It turns out that (i) the medieval HABERE-based Portuguese present perfect becomes obsolete and the past perfect develops into a relative past, (ii) the post-medieval TENERE-based past perfect turns into a relative past as well, whereas (iii) the TENERE-based present perfect undergoes semantic specialization in the course of the 20th century. This paper shows how these facts can be accounted for within the Functional Discourse Grammar approach to the grammaticalization of aspect and tense.

Keywords: Perfect, grammaticalization, Brazilian Portuguese, Functional Discourse Grammar

1 Introduction

In his study of the grammaticalization of tense and aspect, Hengeveld (2011; 2017: 26–28) hypothesizes that phasal aspect develops first into relative tense and only after that into absolute tense. With relative tenses a state-of-affairs is viewed with respect to some reference time, and with absolute tenses a state-of-affairs is viewed with respect to the speech moment (Hengeveld 2011: 590). He illustrates this with the Spanish periphrastic construction *haber* ‘have’ + participle, showing that, in medieval Spanish, the construction had a resultative meaning, i.e. a state-of-affairs is evaluated in terms of its result, and that in modern Spanish, *haber* + participle has come to express relative past tense. He argues that its relative temporal character is proven through the possibility of its use in present, past and future tenses (Hengeveld 2011: 592; 2017: 27). The case of Spanish is neat and clear and can be viewed as a paradigm case of grammaticalization

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from aspect to relative past tense (see also e.g. Harris 1982; Schwenter 1994; Schwenter and Torres Cacoullos 2008).

The situation is much more complex in Portuguese, where the perfect periphrasis does not have a resultative meaning but expresses other aspectual meanings. An additional peculiarity of Portuguese is the fact that its perfect auxiliary is based on Latin *TENERE* rather than on *HABERE*, as is the case in the other Romance languages.

What the Portuguese perfect expresses is iteration or continuity of an event from some past moment onward until the moment of speaking, the event being expected to go on after that (Ilari 2001; Santos 2008). Thus (1a) is an appropriate use of the Portuguese perfect, whereas (1b) is ungrammatical:

(1) a. *A Maria tem escrito carta-s.*¹
 the Maria AUX.PRS.3SG write.PTCP letter-PL
 'Maria has been writing letters.' (Oliveira and Lopes 1995: 102)

b. **A Maria tem escrito uma carta.*
 the Maria AUX.PRS.3SG write.PTCP a letter
 'Maria has written a letter.'

(1b) shows that the Portuguese perfect does not express resultative aspect: its use is warranted only with an undergoer referent in the plural, which leads to an iterative reading. When the undergoer referent is in the singular, the perfective past must be used:

(1) c. *A Maria escreveu uma carta.*
 the Maria write.PST.PFV.3SG a letter
 'Maria has written / wrote a letter.' (Oliveira and Lopes 1995: 102)

Example (1c) has two possible readings: either a resultative one ('has written'), or a perfective one ('wrote'). This means that there seems to be no dedicated grammatical expression for resultativity in Portuguese. Santos (2008: 222) even claims that the very concept of grammatical resultativity is alien to Portuguese.²

When used in the imperfective past, the Portuguese perfect generally expresses relative tense:

(2) *ele tava muito bem só tinha... machucado*
 he COP-TEMP.IPFV.PST.3SG very well only AUX.IPFV.PST.3SG bruise.PTCP
a perna
 the leg
 'he was fine, he only had bruised his leg' (*Iboruna*, F1)³

When used in the infinitive in complex verbal expressions, relative past tense is the only possible reading of the perfect:

1 The glosses contain grammatical specifications whenever relevant. In the verbal complex, only tense and aspect are always specified, but not mood. The reason is that indicative is the default in main and relative clauses, which form the large majority of the examples. Subjunctive mood is always specified.

2 Indirect evidence for the correctness of this view is provided by Barbosa's (2014) diachronic study of the Brazilian Portuguese present perfect: the author does not even consider resultativity as a possible meaning of the present perfect in 16th century prose. Rather, in her view, any non-iterative and non-durative instance of the present perfect encodes perfective past, even when they occur contexts that make a resultative reading highly probable.

3 *Iboruna* is an oral corpus of the Northern São Paulo State area, compiled by Sebastião Carlos Leite Gonçalves at the beginning of the 21st century. In the original transcripts, the orthography reflects the informants' pronunciation. Given that this kind of detail is irrelevant for this study, the transcripts have been largely adapted to the written standard. Moreover, some of the pause indications have been simplified and/or substituted by punctuation. The capitals that follow the name of the corpus specify the educational level (F=primary; M=secondary; S=university) and the age group (1=26-35; 2=36-55; 3=56 and older).

(3) *Ele podia ter trazido a Joana*
 he can.PST.IPFV.3SG AUX.INF bring.PTCP the Joana
 'He could have brought Joana' (*Iboruna*, F2)

For Functional Discourse Grammar, the Portuguese situation is more difficult to account for than the grammaticalization of the resultative perfect to a relative and later absolute past tense, as found in other Romance languages (Squartini and Bertinetto 2000; Drinka 2017). How and why has the Portuguese perfect, which does not express resultative aspect, developed into a relative past tense?

The paper aims at providing an answer to these questions. First, how does the grammaticalization of the Portuguese perfect proceed in diachrony and synchrony? Is its specific meaning related to the idiosyncrasy of auxiliary *ter*? Second, how can we account for these facts within an FDG approach to grammaticalization? Are there any consequences of this account for the conceptualization of aspect and (relative) tense in FDG?

The paper is structured as follows. Section 2 will present a more detailed account of the restrictions on the use of the Portuguese perfect. Section 3 will provide an overview of the relevant developments in Portuguese texts from the 13th century onward. Section 4 will discuss the use of the perfect in spoken Brazilian Portuguese. Section 5 will discuss the results of Sections 3 and 4 and propose an FDG-account of the grammaticalization of the perfect in Portuguese. Section 6 will conclude.

2 General properties of the perfect in Portuguese

As mentioned above, the Portuguese perfect expresses iteration or continuity of an event from some past moment onward until and after the moment of speaking. This holds both with dynamic *Aktionsart*, illustrated in (1) above, and with stative states-of-affairs:

(4) a. *A Maria tem confiado no Manuel.*
 the Maria AUX.PRS.3SG trust.PTCP in-the Manuel
 'Maria has trusted Manuel (and continues to do so).' (Oliveira and Lopes 1995: 102)

Example (4) implies that Maria has not stopped trusting in Manuel; if she had, the perfective past would have been used:

(4) b. *A Maria confiou no Manuel.*
 the Maria trust.PST.PFV.3SG in-the Manuel
 'Maria has trusted Manuel (until now).'

With respect to the possibility of the event to continue, Becker (2017: 28) is not sure whether it forms an integral part of the meaning of the perfect, or an implicature. The following example helps to solve this problem: (5a) contains a cardinal numeral to quantify the undergoer argument, which has a telicizing effect on the event, and thus excludes the possibility of the event to continue.

(5) a. **O surto de meningite tem matado 298 pessoas.*
 the outbreak of meningitis AUX.PRS.3SG kill.PCTC 298 persons
 'The outbreak of meningitis has killed 298 people.'

A reformulation of this example in non-cardinal terms does not have the effect of endpoint marking and is therefore grammatical:

(5) b. *O surto de meningite tem matado muita gente.*
 the outbreak of meningitis AUX.PRS.3SG kill.PCTC many people
 'The outbreak of meningitis has killed lots of people.' (Ilari 2001: 131)

The examples in (5) support the position taken by Cabredo et al. (2009: 72 *n*), who contend that the continuation of the event is an implication rather than an implicature.

At first sight, example (6) seems to be incompatible with a continuous or iterative reading, but is grammatical under a habitual reading:

(6) *Ele tem visitado a família por um mês.* (Ilari 2001: 141)
 he AUX.PRS.3SG visit.PTCP the family for one month
 'He usually visits his family for one month.'

When a habitual reading is available, even momentaneous states-of-affairs with cardinal frequency marking are possible:

(7) *O carteiro tem tocado duas vezes.* (Ilari 2001: 140)
 the postman AUX.PRS.3SG ring.PCTC two times
 'Each time the postman comes, he rings twice.'

Summing up, in its aspectual function, the Portuguese perfect expresses a specific case of what Comrie (1976: 60) named "the perfect of persistent situation" (cf. also Mattoso Câmara 1975: 170), called elsewhere "universal perfect" (e.g. Cabredo et al. 2009; Laca 2010; Dahl and Velupillai 2013; Becker 2017). It forms a specific case due to the implication that the event may continue to obtain after the moment of speaking. It thus shares only a small part of the meanings generally associated with the perfect, excluding not only the resultative but also the experiential (or existential) perfect and the perfect of recent past (or hot news perfect) (see Ritz 2012 for an overview). This motivates Dahl (1985: 171) to claim that Portuguese has no true perfect at all (see also Dahl and Velupillai 2013).

Because of its semantic specificity, the perfect occurs much less frequently than the perfective past in both European (EP) and Brazilian Portuguese (BP): Suter (1984: 15) shows that in oral Brazilian texts there is a mean relation in the indicative mood of approximately 7 perfect forms per 1000 finite verbs.⁴

Apart from its aspectual function, the perfect expresses relative tense, when used in the imperfective past. In this function, it competes with two other forms in written usage. In (8), relative past is expressed first with the dedicated relative past auxiliary *haver* with a participle and in all the other cases by means of the synthetic pluperfect, glossed here as "PLPF":

(8) *O caseiro me disse que um sujeito havia estado lá e revistara a casa toda e não achara nada e fora embora.*
 the tenant me say.PST.PFV.3SG that a individual AUX.PST.IPFV.3SG COP-TEMP.PTCP there and scrutinize.PLPF.3SG the house all and not find.PLPF.3SG nothing and go.PLPF.3SG away
 'The tenant told me that an individual had been there and had scrutinized the entire house and had not found anything and had gone away.' (Rubem Fonseca, *O seminarista*. 2009)

In oral usage, the synthetic pluperfect no longer occurs, and the relative past with *haver* is highly marked, both in European and Brazilian Portuguese.⁵

⁴ I compared the frequencies of the present perfect and the perfective past forms of 11 frequently occurring lexical verbs for 1sg, 2sg and 3sg in two small corpora of EP (27,634 words) and BP (22,571 words) speech. The relation between present perfect and perfective past for EP was 3/70 and that for BP an impressive 0/119.

⁵ A search (with the restrictions as mentioned in note 1) of the relative past in the comparative corpora yielded a total of 17 cases of relative past, 11 in EP and 6 BP, all with *ter*. An analogous search in *Iboruna*, a 407,269 words corpus of popular speech of the northern area of São Paulo State, yielded 82 tokens of relative past, 80 with *ter*, 2 with *haver* and no instances of the analytic pluperfect.

The situation in which there is competition between various expressions of the relative past is reminiscent of 17th–19th century Spanish, when the Spanish cognate of the synthetic pluperfect was still occasionally used in this function (Real Academia 2009: 1806). As there are various features in Portuguese that are reminiscent of older stages of Spanish,⁶ it is tempting to consider the aspectual use of the Portuguese perfect as a relatively early stage of grammaticalization of the perfect, as is done by Harris (1982: 51–52). Squartini and Bertinetto (2000), who study the grammaticalization of the Romance perfect from a typological point of view, however, wonder if the perfect in Portuguese is not just a deviant case, in which the perfective past seems to have retained the resultative meaning from Classical Latin (Squartini and Bertinetto 2000: 408–410). Suter (1984), Cabredo et al. (2009) and Laca (2010) take a different view in considering the Portuguese innovation of the perfect auxiliary: while the perfect auxiliary is based on Latin *HABERE* ‘have’ in all other major Romance languages, Portuguese substituted *haver* for *ter* (from Latin *TENERE* ‘hold’) in the course of the late Middle Ages.⁷ Cabredo et al. (2009: 96–97) and Laca (2010: 15) follow Suter’s (1984: 39–40) hypothesis that the Portuguese perfect may have lost an earlier resultative meaning in the course of this process. This hypothesis will be taken up again in Sections 3.2 and 3.3.

3 The perfect – diachrony

The above-mentioned substitution of auxiliary *haver* by means of *ter* took place in the late Middle Ages. More or less in parallel, *haver* became obsolete as a lexical verb of possession and came to be substituted by *ter*. The principal aim of this section is to find out how the perfect with the two auxiliaries developed, particularly with regard to the above-mentioned hypothesis, put forward by Cabredo et al. (2009) and Laca (2010), according to which the perfect with *haver* had a resultative reading that was gradually lost as a consequence of the introduction of auxiliary *ter*.

In this section, I will first discuss the aspectual and temporal functions of the perfect with *haver* (Section 3.1), and then turn to the introduction of *ter* both in its lexical and grammatical functions and its development until the first half of the 20th century (Section 3.2). In both cases the degrees of formal grammaticalization will be considered, too. Section 3.3 will present some conclusions on the basis of the findings of this section.

The discussion of these developments will be based on the *Corpus Diacrônico do Português* (CDP), covering the period between the 13th and the early 20th centuries.⁸ For this description, I have selected the perfects with indicative present and past tense as well as infinitival forms of the auxiliary.

3.1 The perfect with *haver* (13th–14th centuries)

In the 13th- and 14th-century texts written in the Portuguese vernacular, *haver* is the default lexical verb of possession. In addition, it functions as an existential verb, and it expresses a number of grammatical functions, one of which is expressing the perfect. Consider the following 13th-century example:

(9) *e ainda nom hei feito tanto como deseja meu coração*
 and yet not AUX.PRS.1SG do.PCTP so-much as desire.PRS.3SG my heart
 ‘and I have not yet done as my heart desires’ (CDP, *A demanda do Santo Graal*, 1220)

⁶ For instance, the placement of clitics in modern Portuguese is similar to that of Spanish until the 16th century (Nieuwenhuijsen 2006), and the future subjunctive, which is used frequently in both written and spoken Portuguese, has become less popular in Spanish from the 18th century onward (Penny 1991: 179) and has been relegated to use in very formal (juridical) texts in present day Spanish (Real Academia 2009: 1813).

⁷ Squartini & Bertinetto (2000: 428n) mention this as a possible explanation, but reject it due to the erroneous idea that the perfect in American Spanish behaves similarly (see Laca 2010 for a discussion).

⁸ The corpus consists of 1149 pages of historical and literary prose texts. Given the extensive annotations of these texts, word counting is not possible, which restricts the possibility of quantitative claims. Despite this restriction, I prefer this corpus to the fully automated but entirely unreliable diachronic section of the *Corpus do Português* (CP).

In (9) the phasal polar negation *ainda não* implies a resultative reading of the state-of-affairs; it is revealing that *ainda não* is no longer constructed with the perfect in modern Brazilian Portuguese (Cabredo et al. 2009: 74). The 13th-century data do not contain any case of the perfect with a quantificational reading.

The 14th-century data contain unequivocally resultative cases:

(10) [About the reconquest of Spain:

E hide lydar cõ el rey Bucar, ca certos sede que o vêceredes e desto nõ ajades duvida,

ca Deus mho ha outorgado.

for god me-it AUX.3SG give.PTCP

And go fight against King Bucar, for you may be sure that you will defeat him, have no doubt about this, for God has given it [the country] to me.'

(CDP, *Crónica Geral de Espanha*, 1340)

(11) *Repeendimēto tanto quer dizer como teer o homē*
 repentence so-much will.PRS.3SG say.INF like have.INF the man
por mal a causa que ha feyta ssem guisa
 for bad the thing.(F) which AUX.PRS.3SG do.PTCP.F without wisdom
e auer uoōtade de sse partir della.
 and have.INF wish of REFL.3 separate.INF of-it

'Repentence means that men consider evil the thing he has done mistakenly, and have the wish of distancing himself from it.' (CDP, *Primeyra Partida*, ca. 1320)

In both (10) and (11) the perfect with *haver* operates on transitive verbs with specific singular undergoer arguments, which triggers a resultative reading – a reading compatible with the possessive original meaning of *haver*.

As regards the lexical verbs with which the construction occurs, the collocation with verbs of saying is highly frequent:

(12) *Aquelle ano que Segonça foy destroyda,*
 that year which Sigüenza COP.PST.PFV.3SG destroy.PTCP
segundo desuso avemos contado, era consul em Roma
 conform above AUX.PRS.1PL tell.PTCP COP.PST.IPFV.3SG consul in Rome
huū que avya nome Cornel Cepion,
 one who have.PST.IPFV.3SG name Colonel Cepion
 'That year in which Sigüenza was destroyed, as we have told above, there was a consul in Rome named Colonel Cipio,' (CDP, *Primeyra Partida*, ca. 1320)

Out of the total of 30 present perfects, there are 11 tokens with the verbs *dizer* and *contar*.

So far, we have only considered those cases in which the auxiliary is in the present tense, which amount to a total of 17 cases in my 13th- and 14th-century corpus. The number of cases with the auxiliary in the imperfective past is larger, i.e. 26. It is not always clear how these should be interpreted. Some of them clearly express nothing but relative tense:

(13) *E o cavaleiro que o havia desfiado*
 and the man who him AUX.PST.IPFV.3SG defy.PTCP
leixou-se corre[r] a êle
 let.PST.PFV.3SG-REFL.3 run.INF to he
 'And the man who had challenged him started to run towards him'
 (CDP, *A demanda do Santo Graal*, 1220)

But some of them seem to be resultative perfects used in a past tense narrative, i.e. a combination of resultative aspect and absolute past. Example (14) is an instance of the latter type:

(14) *quando ouviu falar Galvam em esta guisa, conheceu que era companheiro da Mesa Redonda; mas [...] nom cuidou que era Galvam,*
polas armas que havia cambadas
 by-the arm.(F).PL which AUX.PST.IPFV.3SG change.PTCP.F.PL
 ‘when he heard Galvam speak in this way, he noted that he was a companion of the Round Table; but [...] he didn’t realize it was Galvam, due to the armour which he had changed’.
 (CDP, *A demanda do Santo Graal*, 1220)

In this example, it is the result of the changing of the armour that is relevant in the context rather than the event of changing the armour. In addition, the use of *haver* in this example is fully compatible with a possessive reading of *haver*. This makes an interpretation of the perfect as an expression or resultative aspect in the context of the past tense narrative plausible.

In addition to the imperfective past, the auxiliary can also take the perfective past form with the participle. The meaning of this construction is unambiguously that of recent past:

(15) *Pois houve êsto dito, esmoreceu com a grã coita que houve.*
 after AUX.PST.PFV.3SG this say.PTCP faint.PST.PFV.3SG with the great grief which have.PST.PFV.3SG
 ‘Having said this, he fainted from the great grief which he had.’
 (CDP, *A demanda do Santo Graal*, 1220)

(16) *E, despois que el rei esto ouve feito,*
 and after that the king this AUX.PST.PFV.3SG do.PTCP
tornou=sse pera Leon muy ledo e cõ grande prazer.
 return.PST.PFV.3SG=REFL.3 toward León very glad and with great pleasure
 ‘And, after the king had done this, he returned to Leon very glad and with great pleasure.’
 (CDP, *Crónica Geral de Espanha*, 1344)

The recent past occurs in subordinate temporal clauses, which express an immediate reaction to what has been described in the foregoing discourse, thus reinforcing the cohesion of the text. The immediacy of the recent past is expressed by means of the perfective past in the auxiliary, a strategy thus reserved for the periphrastic construction. The recent past construction with the perfect disappears in the 15th century, in parallel with the introduction of *ter* as a perfect auxiliary.

As regards the grammaticalization of the form of the medieval perfect, there are three relevant criteria, mainly based on Lehmann’s (1995 [1982]) seminal study of grammaticalization. The first one is the degree of fixation of the mutual order of the elements that form the construction, which Lehmann refers to as “syntactic variability” (1995: 158–160). The second one is the “bondedness” (Lehmann 1995: 147) of the elements of the construction, i.e. the possibility or impossibility to have other words in between the auxiliary and the main verb. The third one is the agreement of the participle with the undergoer constituent, which corresponds to the degree to which properties inherited from the possessive origin of the construction is reflected in the form of the construction (cf. Olbertz 1993: 250–251).

With respect to the first criterion, the mutual order of the auxiliary and the participle in the medieval perfect is such that the auxiliary precedes the participle, with two exceptions, one of which is (17):

(17) *Peedença he o terceiro sagramento[...] aiuda os dous*
 penitence COP.PRS.3SG the third sacrament help.PRS.3SG the two
que dito auemos
 which say.PTCP AUX.PRS.1PL
 'Penitence is the third sacrament [...] it helps the two which we have mentioned'
 (CDP, *Primeyra Partida*, ca. 1320)

As regards the second criterion, the bondedness of the auxiliary and the participle is relatively weak, since pronouns can be placed between the auxiliary and the participle. An example is (15) above, where the pronoun *êsto* 'this', referring to the undergoer, is placed in between the auxiliary and the participle.

The third criterion, finally, shows that there is still a strong relation between the originally possessive meaning of *haver* and its auxiliary function. In general, the participle agrees in gender and number with the undergoer referent. This can be seen clearly in examples (11) and (14) above. A similar case is (18):

(18) *os erros que am feitos*
 the.M.PL error(M).PL which AUX.PRS.3PL do.PTCP.M.PL
 'the errors which they have committed' (CDP, *Primeyra Partida*, ca. 1320)

The participle *feitos* 'done' (the citation form is *feito*) agrees with the undergoer referent *os erros* 'the errors' in gender and number, which is characteristic of a low degree of grammaticalization, because it looks as if the verb is possessive, with *os erros* functioning as possessee and *feitos* as a resultative secondary predication. But, obviously, in the perfect periphrasis, the agreement is just a remnant of a secondary predication construction that probably existed in an earlier stage.

On the other hand, there are counter-examples to participle-agreement: in (17) above, the participle *dito* 'said' in the relative clause does not agree in number with its referent *dous [sagramentos]* 'two [sacraments]' in the main clause. In addition, *haver* occasionally occurs in intransitive predication, such as (19) below, where there is no undergoer to agree with:

(19) *elle meesmo pidyo perdom e de grado*
 he self ask.PST.PFV.3SG forgiveness and PREP pleasure
perdoou a aquelle que lhe auia errado
 forgive.PST.PFV.3SG to the-one who him.DAT AUX.PST.IPFV.3SG fail.PTCP
 'he himself asked for forgiveness and gladly forgave the one who had failed him'
 (CDP, *Orto do Esposo*, 1390–1417)

However, as a general rule the perfect of intransitive verbs is formed with the auxiliarized copula *ser*:

(20) *Laban era aaquela sazom hidoo a trosquiar as ouvelhas*
 Laban COP.PST.IPFV.3SG in-that season go.PTCP to shear.INF the sheep
a outra parte
 to other place
 'Laban had by that time gone to shear the sheep elsewhere'
 (CDP, *Biblia medieval portuguesa*, 1321–1350)

Summing up, in regard to its form, the perfect with *haver* is not yet highly auxiliarized: it occurs almost exclusively with transitive verbs, the participle of which tends to agree in number and gender with the undergoer referent. Functionally, the perfect has a primarily resultative reading, and, occasionally, it is also used for the expression of recent past.

Interestingly, the Portuguese perfect shares all these formal and functional properties with the Spanish perfect of the same period, which was virtually restricted to transitive verbs, the agreement of the participle with the undergoer argument still being common (e.g. Yllera 1980: 282; Olbertz 1993: 250–252). Functionally,

the Spanish perfect was predominantly resultative by that time, but there was also an expression of recent past analogous to that illustrated in (15) and (16) (see e.g. Yllera 1980: 276–278).⁹

There is, however, an important difference between the role of the perfect in Spanish and Portuguese during this period, which is frequency. In Spanish the perfect is reasonably frequent in relation to the perfective past in the 13th and 14th century,¹⁰ the Portuguese perfect, however, remains extremely infrequent throughout this period: whereas the 13th and 14th century Portuguese corpus yields a total of 57 cases of the perfect in all person – number forms (18 present perfect, 26 past perfect, 11 perfect of recent past and two infinitival constructions), there is an impressive number of 2,532 cases of the 3rd person singular indicative perfective past of regular verbs.

3.2 The perfect with *ter* and *haver* (15th–20th centuries)

As a lexical verb, *ter* occurs in the earliest text, albeit much less frequently than *haver*. It expresses a more specific meaning than *haver*, i.e. that of ‘hold’, ‘keep’ or similar:

(21) *E esta é a nossa fe catholica que firmemente temos e cremos.*
 and this COP.PRS.3SG the our faith catholic which firmly hold.PRS.1PL and believe.PRS.1PL
 ‘And this is our catholic faith, which we firmly hold and believe.’
 (CDP, *Foro Real de Afonso X*, 1273–1282)

In (22), *ter* is used in this specific lexical meaning, in a construction with the resultative secondary predication *cercados* ‘enclosed’:

(22) *E teve=os assy cercados Anybal oyto meses*
 and hold.PST.PFV.3SG=them.M so enclose.PTCP.M.PL Hannibal eight months
 ‘And so Hannibal held them under siege for eight months’
 (CDP, *Crónica Geral de Espanha*, 1344)

This example, which cannot but have a lexical interpretation due to the perfective past form of *ter*, may nevertheless be related to the aspectual use of the periphrasis which *ter* is going to express, because there is a durative state-of-affairs involved. This construction type, in which *ter* is a possessive verb and the participle modifies a secondary predication, continues to exist (albeit rarely) in modern Portuguese (cf. Section 6 below).

In the 15th century, *ter* begins to occur as an expression of unmarked possession, thus competing with *haver* as a lexical verb. *Haver* becomes marginal in the 16th century and is definitively obsolete from the 17th century onward.¹¹

In parallel with its lexical development, *ter* begins to substitute *haver* in the perfect periphrasis. My 15th–20th-century data contain a total of 66 perfects with *haver* against 457 cases with *ter*. In what follows, I will first discuss the use of auxiliary *ter* (3.2.1.) and then turn to auxiliary *haver* (3.2.2.).

⁹ For a more detailed analysis of the Spanish perfect cf. García Martín (2001: 78–90).

¹⁰ I searched 13th and 14th century texts of the *Corpus Diacrónico del Español* (CORDE) of the Royal Spanish Academy for the third person singular of the present perfect *ha ganado* ‘he/she has won’ and the corresponding form *ganó* ‘he/she won’ of the perfective past. The 13th century texts yielded 5 present perfect forms against 131 of the perfective past, but the 14th century texts yielded 29 present perfects forms against 79 of the perfective past.

¹¹ My 16th-century data contain 10 possessive tokens of *haver* against 185 of *ter*, and in the 17th-century data possessive *haver* occurs only three times. After that, I have not found any possessive cases of *haver*.

Finally, it should be noted that my 19th–20th-century data are from Brazilian Portuguese. Therefore, the claims about recent developments concern this very variety only.

3.2.1 *Ter*

The data from the 15th century onward contain 457 cases of the perfect with auxiliary *ter*, 287 with the auxiliary in the present tense, 109 with the auxiliary in the imperfective past, and 61 cases of *ter* in the infinitive. I will first discuss the finite cases, beginning with the present perfect (i), then turning to the past perfect (ii), and ending with the non-finite cases (iii). Finally, I will briefly consider the grammaticalization of the form of *ter* + participle (iv).

(i) *Present perfect*. The introduction of the new auxiliary does not immediately occasion a change of meaning of the perfect. The resultative meaning continues to be present in a number of instances. Example (23) is a final remark about a lengthy quote that precedes.

(23) *E isto que teemos dicto seja assaz da primeira fonte donde procede ho oficio.*
 and this what AUX.PRS.1PL say.PTCP COP.PRS.SUBJ.3SG enough of-the first source from-where proceed.PRS.3SG the official-text
 'And this what we have said be enough of the first source of this holy text.'
 (CDP, *Livro de Ofícios*, 1433–1438)

In this example, the undergoer referent *isto* 'this' anaphorically refers to the extended quote which has just ended, and which the reader is supposed to have read by then. A further clearly resultative case is the following one from the 16th century:

(24) *huma fortaleza, que os brancos tem feita pera resguardado das povoações dos brancos*
 a fortress.(F) which the whites AUX.PRS.3PL do.PTCP.F for protection of-the villages of-the whites
 'a fortress, which the whites have made for the protection of the villages of the whites'
 (CDP, *Colóquios dos simples e drogas e cousas medicinais da Índia*. 1563)

In this example, again, there is a singular undergoer referring to a concrete entity, which triggers the resultative meaning as the only possible interpretation. Albeit rarely, resultatives continue to occur until way into the 18th century:

(25) *Para cujo emprego [de Thesoureiro geral do Commercio dos Indios], [...] tenho nomeado interimamente o Sargento mór Antonio Rodrigues Martins*
 AUX.PRS.1SG appoint.PTCP provisionally the sergeant major Antonio Rodrigues Martins
 'For the function of which [of General Treasurer of the Commerce with the Indians] [...] I have appointed ad interim Sergeant Major Antonio Rodrigues Martins'
 (CDP, *Directório, que se deve observar nas Povoações dos Índios*, 1758)

More numerous are those uses that allow for either a resultative or a quantificational interpretation. This occurs most frequently with verbs of saying:

(26) *Lançarote, aquelle cavalleiro de que já teemos fallado*
 Lancelot that gentlemen of whom already AUX.PRS.1PL speak.PTCP
 'Lancelot, that gentlemen who we have already talked about'
 (CDP, *Crónica dos feitos de Guiné*, 1463–1467)

(27) *dō Aluaro coutinho q morreo no cōbaate de Baltanas e Castella,
quomo tenho dito na Chronica do Príncepe dō Ioāo
as AUX.PRS.1SG say.PTCP in-the narrative of-the Lord Dom João
'Dom Alvaro Coutinho who died in the battle of Baltanas and Castille as I have said in the *Crónica do Príncipe Dom João*.' (CDP, *Crónica do Felicíssimo Rei Dom Manuel*, 1566)*

(28) *Estes Santos (e entre elles principalmente a Virgem Maria
como ja temos dito a_riba são invocados dos
as already aux.PRS.1PL say.PTCP above COP.PRS.3PL invoke.PTCP by-the
da ditta Igreja como Intercessores
of-the said church as mediators
'These Saints (among whom above all Virgin Mary as we have already said above) are invoked by those
of the above mentioned Church as mediators'
(CDP, *Necessário aviso acerca da Igreja e Doutrina dos Papas em Roma*, 1785)*

On the one hand, the acts of communication described in these examples may be internally complex, and they may be repetitive. On the other hand, reference is made to a past event, the result of which is relevant for the context.

From the 16th century onward there are clearly innovative cases, in which the perfect expresses iterativity or continuity of an event. In the following two examples from the 16th and 17th centuries, evidence of the new quantificational meaning is the adverbial expression of time *haa tantos annos* 'for so many years' in (29) and the multiple undergoer referent in (30):

(29) *Traz huma india da terra que tinha por molher com duas filhas. A este presente ainda não está confessado
por não saber
o grande erro que tem feito haa tantos annos.
the great sin which AUX.PRS.3SG do.PTCP for so-many years
'He brought an Indian woman from the land whom he held as his wife with two daughters. Presently
he has not yet confessed for being unaware of the great sin he has committed for so many years.'
(CDP, *Cartas dos primeiros jesuítas do Brasil*, 1538–1553)*

(30) *as maravilhas de valor & santidade que Deos [...] nos tem dado
the wonders of value & holiness which God us.DAT AUX.PRS.3SG give.PTCP
'the wonders of value and holiness which God has given us'
(CDP, Frei Luis de Sousa, *Obras selecionadas*, 1619)*

Despite the presence of a definite article in the undergoer argument in (30), the events that it refers to are not individualizable, because it is doubtful that either the speaker or the addressee can exactly pinpoint individual cases of *maravilhas* 'wonders'. Cases like (29) and (30) represent the majority of present perfects from the 17th century onward. The multiplicity of the events becomes ever clearer:

(31) [about banning the use of indigenous languages from rural schools]
*que Sua Magestade tem recomendado em repetidas Ordens
which her majesty AUX.PRS.3SG recommend.PTCP in repeated orders
'which His Majesty has recommended in repeated Orders'
(CDP, *Directório, que se deve observar nas Povoações dos Índios*, 1758)*

(32) Tem-se *trabalhado constantemente na conservação e melhoramento das estradas*
 AUX.PRS.3SG-REFL.3 work.PTCP constantly in-the maintenance and improvement of-the main-streets
 'Constant work has been done on the maintenance and the improvement of the main streets'
 (CPD, *Discurso recitado pelo Exmo Presidente Miguel de Souza Mello e Alvim*, 1848)

In (31) it is the quantifying adverbial *em repetidas Ordens* 'in repeated Orders' that indicates the multiplicity of the events, and in (32) this effect is achieved by means of the adverb *constantemente* 'constantly'.

In regards to the implication of the continuation of the event after the moment of speaking, which has been mentioned in Section 2 as one of the essential properties of the Portuguese perfect, continuation is not excluded in most cases of iterative or continuative perfects, but it is not necessarily implied either. Evidence are those cases in which such continuation is made explicit (see also Becker 2017: 32). My data contain four such cases, one of which is (33):

(33) *E assi se tem visto e vem cada dia muitas experiencias neste particular.*
 and so REFL.3 AUX.PRS.3PL see.PTCP e see.PRS.3PL every day many experiences in-this respect
 'And so one has seen and sees every day many experiences with respect to this.'
 (CDP, *Livro Primeiro do Governo do Brasil*, 1607–1633)

If the perfect really implied continuation, the additional specification *ver* 'see' in the present tense would be redundant.

Furthermore, throughout the historical corpus we find cases of the combination of the present perfect with adverbial markers indicating that the moment of speaking is the endpoint of the event. This is the case in (34) and (35), where the perfect is licensed by the plurality of the first arguments in the states-of-affairs described.

(34) *as grandes Nações da Europa tem sido atéqui mutuamente equilibradas*
 the great nations of-the Europe AUX.PRS.3PL COP.PTCP so-far mutually balanced
 'the great Nations of Europe have been mutually balanced up to now'
 (CDP, *Reflexoens sobre a questão entre os Estados Unidos, e a França*, 1798)

(35) *a firmeza que as novas instituições têm ganho nesses dezoito annos que medeiram de então até hoje*
 the firmness which the new institutions AUX.PRS.3PL win.PTCP in-these eighteen years which pass.PST.PFV.3PL from then until today
 'the firmness the new institutions have gained in these eighteen years that have passed from then until today' (CDP, *Mensagem ao Congresso Nacional*, 1910)

Example (34), *atéqui* 'so far' is the endpoint marker and in (35) the delimitation of the events is even more explicit: *de então até hoje* 'from then until today'.

It is only in the 20th-century data that we have unambiguous cases of the iterative (or continuous) perfect, in which the event is implied to persist. In (36) the continuation of the event is unequivocally indicated in the context:

(36) *Communica-nos o sr. maj. Manoel José da Costa Mattos, proprietario da linha de trolys que tem feito o serviço de Ibarra para esta cidade, que dentro_de poucos dias os fará correr diariamente entre aquellas localidades daily between those places e tambem d'aqui para a estação de "Ignacio Uchôa".*

'We were infomed by Mr. Manoel José da Costa Mattos, owner of the trolley line that has been operating a service between Ibarra and this city, that within a couple of days he will make them run daily between these places and also from here to the "Ignacio Uchôa" station.'

(CDP, *O Poder Moderador* [local newspaper], 1911)

In the following example, it is clear that the problems mentioned have not been solved, so that the event marked in the perfect will go on:

(37) *Espero que possam ser resolvidas agora as pequenas hope.PRS.1SG that can.SUBJ.PRS.3PL COP.INF resolve.PTCP now the little questões de forma que têm retardado a assinatura de problems of form which AUX.PRS.3PL delay.PTCP the signing of uma Acta declaratoria da demarcação de fronteiras entre o Brasil e a Republica Argentina.*
 'I hope that it will be possible to solve the tiny problems of form that have been delaying the signing of a Declaration of the demarcation of the borders between Brazil and the Republic of Argentina.'

(CDP, *Mensagem ao Congresso Nacional*, 1910)

After having considered the development of the present perfect, I will now turn to that of the past perfect.

(ii) *Past perfect.* Until way into the 17th century the past perfect generally has the same functions as the present perfect, the only difference being the temporal context, i.e. the absolute tense, which is present in the case of the present perfect and past in the context of the past perfect. The following examples illustrate successively a resultative past perfect (38), the iterative past perfect (39), and the ambiguity between resultativity and iterativity (40).

(38) *E entre as razões que ouvi dizer que o Iffante dissera a aquele seu filho, ao tempo que se delle partiu, foie que lhe encomendava que se nembrasse da Ordem de cavallaria, que tinhia recibida*
 'Among the things I heard the Infante tell his son when he left him, was that he recommended that he remember the Order of the Cavalry which he had received'
 (CDP, *Crónica dos Feitos de Guiné*, 1463–1473)

The *Ordem de Cavalaria* may be considered to be only one entity, so that a resultative meaning of (38) is the most plausible one.

(39) *E era também naquella capitania, Alvaro de Freitas, comendador d'Aljazur, que he da ordem de Santiago, também homem fidaldo, e que tinhia feitas mui grandes prêses nos*
 'and who AUX.PST.IPF.3SG do.PTCP.F.PL very numerous capture.(f).M in-the

Mouros de Graada e de Bellamarim;

Moors of Granada and of Benemerin

‘And to this commando also belonged Alvaro de Freitas, commander of Aljazur, which belongs to the order of Santiago, also a nobleman, who had been making very considerable capturings among the Moors of Granada and Benemerin;’ (CDP, *Crónica dos feitos de Guiné*, 1463–1467)

In (39) the multiplicity of the undergoer referent *mui grandes prèsas* triggers an iterative reading of the perfect.

(40) *Da bem queremça e amores que el Rei Dom Fernando tomou em Lixboa com Dona Lionor Téllez, como ja dissemos, foi loguo fama per todo o reino, afirmamdo que era sua molher, com que ja dormira, e que a tiinha recebida a furto.*

and that her AUX.PST.IPFV.3SG receive.PTCP.F secretly

‘About the affection and love that King Dom Fernando took in Lisbon for Dona Lionor Téllez, as we already told, there was immediately gossip in the entire kingdom, claiming that she was his woman, with whom he had already slept and that he had been receiving / had received her secretly.’

(CDP, *Crónica D. Fernando*, 1443)

Example (40) may mean that the King had been receiving Dona Lionor habitually. But it may also be that he had received her secretly only once, after which she stayed with him. The former interpretation would correspond to the iterative perfect and the latter one to the resultative perfect.

In analogy with what happens with the present perfect, the iterative readings of the past perfect become more stable in the 17th century. However, from the 18th century onward, the past perfect gradually loses its aspectual function and turns into a relative past tense. The following 18th-century example combines the expression of anteriority with the notion of iterativity:

(41) *O Governo Francez realizou emfim as ameaças, the government French achieve.PST.PFV.3SG finally the menace.PL que os seus Ministros tinham anteriamente feito, which the its minister AUX.PST.IPFV.3PL before do.PTCP ‘The French Government finally carried out the acts of menace, which its Ministers had made earlier’ (CDP, *Reflexoens sobre a questão entre os Estados Unidos, e a França*, 1798)*

In this example and in the remaining data from the 18th–20th centuries, the anteriority meaning of the past perfect is predominant. The following case, which is representative of the past perfect of this period, contains no notion whatsoever of iterativity:

(42) *Passamos uma noite horrivel sobre o sólo, cujo pasto pass.PST.PFV.1PL a night horrible on the ground whose grass tinha sido queimado.* (19RV)
AUX.PST.IPV.3SG COP.PTCP burn.PTCP ‘We passed a horrible night [sleeping] on the ground, the grass of which had been burnt.’ (CDP, *Relatório de viagem*, 1885)

Having shown the development of the past perfect from aspect to relative tense, let us now consider the use of the non-finite forms.

(iii) *Non-finite auxiliary ter.* In my corpus, non-finite clauses with auxiliary *ter* occur from the 15th century onward. In such cases the perfect fits neither of the two categories (resultative or iterative) because it expresses relative past tense. Consider the following examples:

(43) *E depois logo aacerca, disse huum dia a huum de seu conselho, como se reprendia de teer casado com ella.*
 how REFL.3 reprimand.PST.IPFV.3SG of AUX.INF marry.PTCP with her
 'And soon after that he said one day to one of his advisors how sorry he was to have married her.'
 (CDP, *Crónica D. Fernando*, 1438)

(44) *Hos senhores, & fidalgos q se acharã em Aluor acôpanharam ho corpo delRei atte a çidade de Sylues, one ho enterraram na Sé,*
pelo elle assi ter mâdado,
 for-it he so AUX.INF order.PTCP
 'The gentlemen and noblemen who were in Alvor accompanied the body of the King to the city of Sylves, where they buried him in the Cathedral, for his having so required,'
 (CDP, *Crónica do Felicíssimo Rei Dom Manuel*, 1566)

Rather than expressing an aspectual meaning, in these non-finite subordinate clauses the infinitival perfect serves to locate the state-of-affairs in time in an anteriority relation to the state-of-affairs described in the main clause. Such constructions are relatively infrequent until the 19th century.¹² From the 19th century onward the infinitival perfect comes to be used in complex (modal) verb constructions, such as already mentioned in Section 1 (example [3]).

(45) *Só hoje, pelo Paulo, soube que tens estado doente,*
ainda que a falta de carta tua m' o deveira ter feito suppôr.
 although the absence of letter yours me.DAT it should.3SG AUX.INF do.PTCP suppose.INF
 'Only today, from Paulo, I heard the you have been ill, although the absence of any letter from you should have made me suppose so.' (CDP, *Cartas de Antero de Quental*, 1865–1887)

In the period from the 19th to the first half of the 20th century, the relative frequency of the infinitival perfect increases in relation to the other perfect constructions, constituting 19% of the total in the 19th century and 35% of the total in the first half of the 20th century. This may indicate that the perfect is on its way to becoming a relative tense in the context of complex constructions.

(iv) *Grammaticalization of form.* The grammaticalization of the form of the construction with *ter* will again be considered in the light of the criteria applied to assess the grammaticalization of the *haver* construction: (i) bondedness, (ii) syntactic variability and (iii) the degree to which the auxiliary retains properties related to its lexical origin.

The degree of bondedness of the *ter* construction is equally low as that of the *haver* construction. Consider (46), in which the dative clitic follows the auxiliary:

(46) *Temos=he escrito que se venha logo pera nos consolarmos in Domino.*
 AUX.PRS.1PL=you.FORM.DAT write.PTCP that REFL.2SG.FORM come.SBJV.PRS.2SG.FORM immediately to REFL.1PL comfort.SBJV.FUT.1PL in Lord
 'We have been writing you that you come as soon as possible so that we can comfort ourselves in the Lord.' (CDP, *Cartas dos primeiros jesuítas do Brasil*, 1538–1553)

¹² My data from the period between the 15th and the 18th centuries contain 17 cases of infinitival perfects, against 143 present perfects and 80 past perfects.

This property continues to be characteristic of Portuguese until the present. The separation of the auxiliary from the participle in the perfect periphrasis by pronouns, clitics or adverbs occurs in written Portuguese (Suter 1984: 43–47); and even in present-day spoken Brazilian Portuguese, the separation of the two components of the perfect construction by means of clitics still is the default (e.g. example [55] below).

There is no syntagmatic variability left, i.e. the auxiliary always precedes the participle. In fact there is only one early instance in my corpus in which, for stylistic reasons, the participle precedes the auxiliary.

As regards the remnants of lexical properties of *ter*, agreement of the participle with the undergoer argument, whenever present, is the default until the beginning of the 16th century, when agreement persists only in about half of the cases. In the 17th century agreement is less frequent, and it is definitively lost in the 18th century.¹³ From that very period onward, the perfect comes to be used systematically with intransitive and reflexive verbs as well, thus ousting *ser* as an perfect auxiliary:

(47) [about Indians fleeing from the brutality of the colonists]
como repetidas vezes tem sucedido
 as repeated times AUX.PRS.3SG happen.PTCP
 ‘as has been happening repeatedly’
 (CDP, *Directório, que se deve observar nas Povoações dos Índios*, 1758)

In the following example, *ter* is used in a non-verbal predication, with the copula as the participle:

(48) *o seu descuido, tem sido a causa do abatimento,*
 the their negligence AUX.PRS.3SG COP.PTCP the cause of-the decay
e pobreza, a que se achaõ reduzidos;
 and poverty the which REFL.3 find.PRS.3PL reduce.PTCP
 ‘their [the responsible staff’s] negligence has been the cause of the decay and the poverty, to which they see themselves reduced;’ (CDP, *Directório, que se deve observar nas Povoações dos Índios*, 1758)

With the exception of the criterion of bondedness, the application of the criteria prove the form *ter* + participle to be highly grammaticalized from the 18th century onward.

3.2.2 *Haver*

As I mentioned earlier, *haver* occurs only very incidentally in its auxiliary function between the 15th and 20th centuries. Of the six cases in my 15th-century data, there is only one in the present perfect, three in the past perfect and 2 in the perfective past perfect. These are the continuation of what I described in Section 3.1 for the early medieval use: the only present perfect has a resultative meaning, in analogy with the examples in (9)–(11), and two cases with the auxiliary in the perfective past express recent past, similar to (15) and (16). The three past perfects express the new iterative or continuous meaning, illustrated in (49):

(49) *Corremo estas moedas que teemdes ouvido, e posto el Rei em paz como dissemos, agravarom-se os pobos a elle dizendo,*
que per aazo das muitas moedas de desvairadas
 that for reason of-the many coin.(F).PL of diverse

¹³ Obviously, whenever the undergoer argument has a masculine singular or clausal referent, the (regular) participle has its default form ending in *-o*, and thus provides no clue with regards to agreement. For the 15th century, my corpus yields 19 cases in which the participle agrees in gender and number with the undergoer argument against 2 cases where there is no such agreement. The 16th century data contain 8 cases of agreement against 7 of non-agreement, and in the 17th century data there are 8 cases of agreement against 14 of non-agreement. I have not found any agreeing participles in the perfect construction after that.

leis e preços, que em sua terra avia feitas
 laws and values which in his country AUX.PST.IPFV.3SG do.PTCP.F.PL

'Given that there were these coins circulating, as you have heard earlier, and the King having been in peace, as we mentioned, the people complained to him asking for the reason of the many coins of diverse juridical entities and values, which he had been issuing in his country,
 (CDP, *Crónica D. Fernando*, 1443)

In the 16th century, we find only two cases of the perfect with *haver* in the infinitive, which, as such, have a relative past tense reading:

(50) RUANO: *E que vos parece disso, he verisimile?*

ORTA: *Nã: porque ja ho pergútey, e*
núca me disserā hauer=lo visto algúia pessoa.
 never me.DAT say.PST.PFV.3PL AUX.INF=him.ACC see.PTCP some person

'RUANO: And what do you think, is it likely?

ORTA: No: I have already asked, and never did anybody tell me that they had seen him.'
 (CDP, *Colóquios dos simples e drogas e cousas medicinais da Índia*. 1563)

There are no cases of the perfect with *haver* in the 17th century corpus. In the 18th century, *haver* occurs with a certain frequency (12 past perfects and two infinitive constructions), but then its function is exclusively that of relative past, both in its finite (51) and non-finite (52) usage:

(51) *perguntando a os examinadores o que haviam feito*
 asking PREP the examinators the what AUX.PST.IPF.3PL do.PTCP

com Isaac Newton, lhe responderam, que o
 with Isaac Newton him.DAT answer.PST.PFV.3PL that him.ACC

haviam mandado a estudar de_novo, por nao acha=lo
 AUX.PST.IPFV.3PL order.PTCP to study.INF anew for not find.INF=him.ACC
bastantemente qualificado;

sufficientlyqualified

'when he asked the examinators what they had done to Isaac Newton, they answered that they had ordered him to study anew because they thought he was not sufficiently qualified;'

(CDP, *Theorica verdadeira das Mares*, 1737)

(52) *E Hey outrosim por bem, que este Alvará se registe com o mesmo Regimento nos livros das Camaras, onde pertencer,*

depois de haver sido publicado por Editaes
 after AUX.INF COP.PTCP PUBLISH.PTCP through public-notices

'I also agree that this Rule be registered according to the same Rules in the books of the Chambers, wherever they belong, after having been published in public notices'

(CDP, *Directório, que se deve observar nas Povoações dos Índios*, 1758)

What the perfect expresses here is the temporal anteriority of the state-of-affairs in question with respect to the past events that are being narrated. Anterior past perfects and infinitive perfects are the default in the remainder of my data, with the exception, however, of a 19th text that contains three present perfects with *haver*. The text is a political speech, *Relatório da Repartição dos Negócios da Guerra* 'Account of the Repartition of the Dealings of the War', held in parliament in 1843, which describes in detail the achievements of the government. The document is particularly rich in present perfects, and the three present perfects with *haver* can probably be explained as an way of achieving stylistic variation.

In regards to the grammaticalization of the form *haver* + participle, I have shown in Section 3.1 that it was not yet advanced in medieval times. Let us see what happened in the post-medieval period,

starting again with syntactic variability. This is truly non-existent, because from the 15th century onward the auxiliary always precedes the participle. With regard to bondedness, the situation is identical to the case of the *ter* construction: it is always possible to have at least a clitic between *haver* and the participle. Concerning the possible lexical properties retained by *haver*, the first and most important point is that *haver* has already lost its lexical meaning in the 15th century. Nevertheless, the participle continues to agree with the undergoer argument in gender and number in half of the six 15th-century cases. In the two 16th-century tokens, there is no agreement and I did not come across any case of agreement after that. This may also be due to the fact that *haver* occurs with verbs that take events as undergoer arguments, as in (51) above. From the 18th century onward *haver* appears with intransitive verbs, with copulas and in passive constructions (as is the case in (52) above), all of which are incompatible with a potential lexical reading of the formerly possessive *haver*. This means that by this time the relation to the original possessive meaning of *haver* has been completely lost, and, despite its low frequency, the form *haver* + participle is highly grammaticalized.

3.3 Intermediate conclusion

I have shown the semantic development of the Portuguese perfect with *haver* from an expression of resultativity in the Early Middle Ages to relative tense in the 18th century. In parallel with this functional change, the form of the *haver* construction has further grammaticalized. The new auxiliary *ter* comes up in the 15th century and rapidly ousts *haver* as the auxiliary of the present perfect. In combination with the new auxiliary, the perfect rapidly acquires a new quantificational function: it expresses that some state-of-affairs has begun to occur in the past and continues at least until the moment of speaking, in other words, it becomes a universal perfect or perfect of persistent situation. It is only in the first half of the 20th century that we encounter unequivocal cases in which the (iteration of the) event is implied to continue. When used in the infinitive, the perfect with *ter* expresses relative past, too. In the process of its semantic development between the 15th and 20th centuries, the form of the perfect with *ter* becomes highly grammaticalized as well.

As regards the hypothesis advanced by Suter (1984: 39–40), Cabredo et al. (2009) and Laca (2010) that the quantificational meaning of the modern perfect is related to the introduction of *ter* as an auxiliary, my data indicate that such a relation may indeed exist, but that it is much less direct than might have been expected. In fact, Cabredo et al. (2009: 96–97) and Laca (2010: 15) do not claim that there is a direct relation between these two facts but point to the resultative construction with *ter* as a lexical verb, illustrated in (22) above, which they suppose to have developed parallel to the introduction of *ter* as an auxiliary. This construction is claimed to have occasioned a split between the grammatical perfect and the (lexical) resultative. I will return to this point in Section 6.

4 The perfect in Brazilian Portuguese – synchrony

In this section I will discuss the way in which the perfect with both *ter* and *haver* is used in present-day spoken Brazilian Portuguese. My analysis is based on a 171.948 words corpus selected from *Iboruna*, a large corpus of informal sociolinguistic interviews of popular Brazilian Portuguese spoken in the northern region of São Paulo State. My corpus yields a total of 202 cases of the perfect with *ter* and 11 with *haver*. As was to be expected, the latter expresses relative tense only, the reduced number indicating its marginal status in spoken Brazilian Portuguese, as has been mentioned in Section 2. Therefore, this section will be exclusively concerned with the perfect with auxiliary *ter*.

Of the 202 tokens of the perfect with *ter*, there are 150 finite cases and 52 non-finite ones. The latter express relative past, as we have already seen in Section 3.2.1 above. The use of the *ter* perfect in complex modal constructions of the type illustrated in example (45) above makes up about 44% of the total of the 52 infinitive constructions. This and the fact that the infinitive construction is about a quarter of the total perfect constructions confirms the general tendency of *ter* to develop into an expression of anteriority, i.e. a

relative past tense. Of the 150 finite occurrences, there are 126 cases in the imperfective past, which, as was to be expected, exclusively express relative past:

(53) *Doc.: ele tava armado? Inf.: tava com uma faca né?*
 o que ele tinha colocado nas minhas costas
 the what he AUX.PST.IPFV.3SG place.PTCP in-the my back
 foi uma faca né?
 COP.PST.PFV.3SG a knife not-COP.PRS.3
 'Doc.: Was he armed? Inf.: He had a knife, didn't he? What he had placed in my back was a knife, wasn't it?' (*Iboruna*, M1)

(54) *ela tinha acabado de casar na igreja... e assim meu avô num foi nem minha avó mãe do meu pai... e ela falou que ela ficou tão triste que*
 ela nunca tinha bebido, ela bebeu que ela
 she never AUX.PST.IPFV.3SG drink.PTCP she drink.PST.PFV.3SG that she
 ficou bêbada na festa
 get.PST.PFV.3SG drunk in-the party
 'she had just married in the church ... and so my grandfather hadn't come nor my grandmother, mother of my father ... and she said that she was so sad that – she had never drunk – she drank [so much] that she got drunk at the party' (*Iboruna*, M1)

With respect to example (54) one might be inclined to believe that the perfect were triggered by *nunca* 'never', thus expressing an experiential perfect. However, it turns out that *nunca* occurs much more frequently with the perfective past than with the past perfect: in my corpus there are 11 hits with the past perfect against 55 with the perfective past, which means that we can be certain that (54) is just an instance of relative past.

The remaining 24 tokens of the perfect are in the present and all have an iterative reading. Example (55), which contains an unusually high concentration of perfects, illustrates the relevance of adverbial marking to clarify the multiplicity of events:

(55) *olha eu gosto muito de pescar mas ultimamente*
 look.IMP.2SG I like.PRS.1SG much PREP fish.INF but recently
que eu tenho ido pescar num tem dado muita sorte
 that I AUX.PRS.1SG go.PTCP fish.inf NEG AUX.PRS.3SG give.PTCP much luck
não que... meu tio tem me levado no rio Grande
 not that my uncle AUX.PRS.3SG me.ACC take.PTCP to-the Rio Grande
pescar lá e num tem dado muita sorte não
 fish.INF there and NEG AUX.PRS.3SG give.PTCP much luck not
 'I like fishing very much, but recently, whenever I have gone fishing, I haven't been having much luck... my uncle has been taking me to the Rio Grande to fish there, and I haven't had much luck' (*Iboruna*, F1)

All four present perfects in (55) describe states-of-affairs modified by the adverb of recency *ultimamente*, which is a strong trigger of the present perfect, as are other temporal adverbials containing the adjective *último* (Suter 1984: 45), such as *nesses últimos anos* 'during the last couple of years', which motivates the present perfect in two other of the 24 cases.¹⁴

In (56) the present perfect occurs with the adverbial modifier of frequency *de vez em quando* 'from time to time':

¹⁴ I am grateful to Lachlan Mackenzie for drawing my attention to the relevance of *ultimamente* and related adverbials.

(56) [after a successful treatment of prostate cancer]

o P.S.A. que é o exame específico que eu falei antes... hoje aponta zero:... vírgula cinco... quando o limite é quatro né?...

e eu tenho feito exame de_vez_em_quando... tem

and I AUX.PRS.1SG DO.PTCP test from_time_to_time AUX.PRS.3SG

dado isso daí

give.PTCP this there

‘the P.S.A., which is the specific test which I told you about before... nowadays the result is zero point five... while the maximum is four, you see? and I have been doing the test from time to time and the result has always been this’ (*Iboruna*, S3)

The present perfect also occurs with an expression of multiplicity in the undergoer argument:

(57) *hoje essa lenda... é recontada... nas escolas... especialmente nas escolas primárias...*

mas tem sido também... motivo éh... mote para outros tipos
but AUX.PRS.3SG COP.PTCP also motive motto for other kinds

de trabalho por exemplo os artistas... têm feito uma série
of work for example the artists AUX.PRS.3PL make.PTCP a series

de painéis... de quadros... de desenhos de ilustrações de trabalho ...

of panels of pictures of drawings of illustrations of work

‘today that legend is being retold in the schools ... particularly in the primary schools but it has also been motive ... er ... motto for other kinds of works, for example artists have been making a series of panels ... of pictures ... of drawings ... of illustrations of work ...’ (*Iboruna*, S3)

In both perfects in (57) it is in fact the modifiers of the undergoer arguments that express multiplicity: in the first instance of the perfect it is the modifier *para outros tipos de trabalho* ‘for other kinds of work’ and in the second instance it is the modifier *de painéis de quadros* ‘of panels of pictures’ (etc.) that helps to express a multiplicity of the state-of-affairs. All the 24 cases imply the possibility of continuation of the event after the moment of speaking; in other words, there is no instance that disallows such a reading.

Before ending this section, there is one point that remains to be discussed, which is the exact semantic nature of the perfect in present day Brazilian Portuguese. First of all, it cannot be denied that it has one property of a perfect, i.e. the function of expressing some state-of-affairs that started in the past and continues into the present, which means that it is a universal perfect (or: perfect of persistent situation) with the additional meaning component that it may continue to obtain after the moment of speaking. But it is equally obvious that at the same time it has a quantificational nature. Cabredo et al. (2009), Laca (2010), and Amaral and Howe (2012) consider the perfect in Portuguese an expression of “pluractionality”, i.e. the “plurality” of an event.¹⁵ In their study of pluractionality and related notions, Bertinetto and Lenci (2012: 852) distinguish two types of pluractionality:

- Event-internal pluractionality [...]: the event consists of more than one sub-event occurring in one and the same situation (*Yesterday at 5 o'clock John knocked insistently at the door*).

- Event-external pluractionality: the same event repeats itself in a number of different situations (*John swam daily in the lake*).

In my view, the Portuguese perfect belongs to the latter type of pluractionality, which corresponds to the quantification of events proper rather than being related to subevents of one single event. The plurality of events is generally expressed either through the plurality of (one of) the arguments or their modifiers and/or by an adverbial which expresses (e.g. *de vez em quando*), or implies (e.g. *ultimamente*), the plurality of occasions on which the event occurs. When there is no such clue, it is the perfect itself that marks the plurality of events:

¹⁵ Whereas Cabredo et al. (2009) and Laca (2010) consider only iteratives to be pluractional, Amaral and Howe (2012: 30, 51n) explicitly include durative states-of-affairs into their definition of pluractionality.

(58) *eu sempre penso assim... que se aconteceu aquilo lá é porque outra coisa pior talvez fosse me acontecer...*
que diante da próstata dos dois derrames e tudo... eh... tudo isso que aconteceu...
eu acho que Deus tem sido muito bom comigo
I think.PRS.1SG that God AUX.PRS.3SG COP.PTCP very good with-me
'I always think this... that when those things happened it is because perhaps something worse would
happen to me... which in relation to the prostate, two hemorrhages and all ... er ... all that what had
happened... I think God has been very good to me' (Iboruna, S3)

The context that precedes the example in (58) confirms that the perfect does indeed express that the speaker means to say that God has been good to him on several occasions (and is expected to continue to do so). I think that 'pluractionality' is an appropriate description for the Portuguese perfect, because it leaves open the difference between iterativity and continuation. But in addition, the expected continuation (of the iterated) event after the moment of speaking needs to be included in the description. I therefore propose the label 'pluractional continuity perfect' for Portuguese perfect.

5 A Functional Discourse Grammar account of the grammaticalization of the perfect

In this section, I will show that the framework of Functional Discourse Grammar (FDG) is able to account for the developments described in Sections 3 and 4. Before going into more detail, I will briefly discuss the way in which grammatical semantics is dealt with in FDG, for as far as relevant for this paper, with special attention to the analysis of the perfect.

Functional Discourse Grammar is a hierarchically structured functional model of the Discourse Act and of all formal and functional elements it contains. A Discourse Act can be defined as the smallest unit of verbal interaction. As can be gathered from this point of departure, FDG takes the interpersonal aspects of communication as a starting point. Within the FDG theory the so-called Interpersonal Level governs the semantic content of communication, which is dealt with in the so-called Representational Level. Together, these two levels provide all the contentive aspects of communication. The Morphosyntactic and the Phonological Levels are responsible for the expression of the contents, but they do not affect these contents.

Like all grammatical components in FDG, the semantic component, i.e. the Representational Level, has a hierarchical structure such that the most complex entities have scope over the less complex ones. In the course of this paper I have mentioned the common concept of 'State-of-Affairs'. The next lower entity is the 'Configurational Property', i.e. the (verbal) predicate and its arguments. Configurational Properties can be modified by means of low level operators ($\pi 1$) for qualitative aspect, which includes phasal aspect and the perfective – imperfective dichotomy. The next higher layer, the State-of-Affairs, takes the Configurational Property in its scope and can itself again be specified by means of operators ($\pi 2$) for quantificational aspect and relative tense, i.e. of anteriority, simultaneity or posteriority with respect to other States-of-Affairs. The next higher layer is the Episode, which consists of a set of States-of-Affairs that are characterized by continuity of time and place, as well as participants, i.e. the referents of the arguments. The Episodes themselves can be located in absolute tense ($\pi 3$), i.e. present, past or future with respect to the moment of speaking. The mutual relations of these three layers are represented in a simplified way in Figure 1.

Layer	EPISODE (ep) ep ($\pi 2$ e ($\pi 1$ f))	STATE-OF-AFFAIRS (e) e ($\pi 1$ f)	CONFIGURATIONAL PROPERTY (f) f = pred (arg ⁿ)
Operators	$\pi 3$ operators: – <i>absolute tense</i>	$\pi 2$ operators: – <i>quantificational aspect</i> – <i>relative tense</i>	$\pi 1$ operators: – <i>phasal aspect</i>

Figure 1: Major tense – aspect operators in FDG

It should be noted that the operators given in Figure 1 are very general categories, which cover language specific categories.

The concept of phasal aspect is internally complex, a fact that Dik's Functional Grammar accounts for by distinguishing two types of phasal aspect, i.e. outer phasal aspect, which basically consists of prospective and perfect distinctions, vs. inner phasal aspect, i.e. ingressive, progressive and egressive (Dik 1987). In FDG this distinction has been discarded, and phasal aspect is treated as a single grammatical category. It is argued that phasal aspect distinctions operate on the Configurational Property, because of "their interaction with the *Aktionsart* of predication frames" (Hengeveld and Mackenzie 2008: 211). In addition to providing some well-known examples of the feature-changing effects of ingressive and progressive aspectual distinctions (cf. e.g. Comrie 1976: ch. 2), the authors provide the following example, based on Steedman (1977: 221):

(59) a. *What he did was run.*
 b. **What he did was going to run/be running/have run.*

The authors claim that (59b) proves that prospective, progressive and resultative phasal aspects affect the dynamic *Aktionsart* of the Configurational Property ($f_i^c; [(f_i; \text{run}(f_i)) (x_i)_A] (f_i^c)$) in such a way that the result is no longer dynamic and does therefore not allow the pseudo-cleft with *do*. However, this effect is not unique to phasal aspectual constructions, but it also applies to habitus, which are also states (Vendler 1967: 108). Consider the following example from Spanish, containing a grammaticalized habitual, which in the pseudo-cleft construction is just as ungrammatical as its English translation containing a habitual adverbial modifier:

(60) a. *Solía correr.*
 usually-do.PST.IPFV.3SG run.INF
 'He usually ran.'
 b. **Lo que hacía es soler correr.*
 what do.PST.IPFV.3SG be.3SG usually-do.IMP run.IMP
 '**What he did was usually run.'

In fact, modalization by means of *have to* has the same effect:

(61) a. *He had to run.*
 b. **What he did was have to run.*

What we can conclude from the examples in (60) and (61) is that the loss of dynamicity is not specific to verbal predicates modified for phasal aspect, which invalidates the only evidence provided by Hengeveld and Mackenzie (2008) for not distinguishing between outer and inner phasal aspect, as is consistently done in later FDG publications (e.g. Hengeveld 2011, 2017).

There is also positive evidence for the existence of a subcategorization between outer and inner phasal aspect. To begin with, only inner aspect is sensitive for and may produce effects on the *Aktionsart* of the Configurational Property, as can be seen from the following examples:

(62) a. *He entered the building through glass doors.* (COCA, 2015, Journalism)
 b. *Jack has entered the building!* (SOAP, 2001)
 c. *This man, I understood in a flash, was going to enter the building as we did and trap us between the locked front door and the locked iron gate beyond it.* (COCA, 2002, Academic)
 d. [Personal stories of police staff]
My highlight has to be when I was part of the policing operation for when the Queen came to open the new Royal Shakespeare Company's theatre. I was part of the corridor of security when she was entering the building (<https://www.warwickshire.police.uk/article/16117/Role-Profile-Kimberley>)

These four examples all contain Configurational Properties with *enter the building* and with a singular agentive argument. Example (62a) represents the unmarked case, i.e. it contains no phasal aspect marking; therefore, the predication frame with *enter the building* as used in this example is momentaneous. In (62b) *enter the building* is used with resultative perfect aspect, but the momentaneousness remains unchanged, and the same holds for (62c), where the same expression is used with prospective aspect. Only the progressive aspectual marking in (62d) affects the Aktionsart of the Configurational Property: the State-of-Affairs *she was entering the building* is non-momentaneous.

Although I do not want to advocate a strict division between inner and outer phasal aspect, I do think it is important to keep in mind what distinguishes them before considering what they have in common. In the case of inner aspects, the internal temporal structure of an event is viewed from an event-internal perspective; conversely, outer aspect distinctions view the internal temporal structure of an event from an event-external perspective. The prospective establishes a relation with the event and its imminence, and the resultative perfect establishes a relation between the event and its immediate consequences. This is what clearly distinguishes outer aspect from relative tense, which concerns the temporal relation of two events, irrespective of how they are internally structured. On the other hand, outer aspect is different from inner aspect in being inherently unstable and being more prone than inner aspect to develop into (relative) tense (Dik 1987; 1997: 240) or other TAME operators (Hengeveld 2011).

The grammaticalization of the functions of operators is expected to proceed from the lower layers to the higher ones, i.e. in the present case, from the Configurational Property to the State-of-Affairs and possibly to the Episode (Hengeveld 2017). On being grammaticalized, lexical items can enter the system at any point. The grammaticalization of the form of a new grammatical item can vary; lexemes that are not yet fully grammaticalized are 'lexical operators' (Keizer 2007). The expectation is that lexemes become lexical operators, which will gradually become grammatical operators, but it is assumed that the development cannot be reversed (Hengeveld 2017: 29–31).

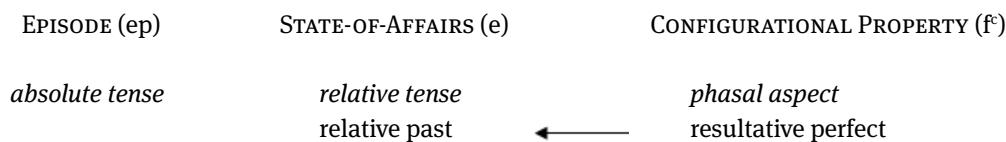
With this information in mind, I will first deal with the semantics of the perfect (Section 5.1) and then discuss the grammaticalization of form (Section 5.2).

5.1 The functional changes of the perfect with *haver* and *ter*

In this section I will first consider the perfect with *haver* and then turn to the perfect with *ter*.

As mentioned at the end of Section 3.2.1, the medieval Portuguese perfect with *haver* behaves very similarly to the Spanish perfect. But, in fact, this holds for almost its entire development. It begins with a mainly resultative function with a relative recent past function in very restricted contexts, i.e. in temporal clauses indicating immediate anteriority. It loses the resultative meaning more or less in parallel with the loss of its lexical meaning of possession and ends up expressing exclusively relative tense. This means that we could sketch its grammaticalization path as in (63) below.

(63) The grammaticalization of *haver* + PTCP in the 13th–15th centuries



The meaning change given in this representation presents the development of the perfect with *haver* at the point that it is restricted to the use in past tense contexts or in infinitival constructions, which, according to my data, is the case from the 16th century onward.

The functional change of the perfect with *ter* is somewhat more complicated to account for, because we need to distinguish between the present perfect on the one hand, and the past and infinitival perfect on the other, the latter two forming the large majority of the perfects. Furthermore, we have to decide if

the pluractional continuation perfect is a kind of phasal aspect or a kind of quantificational aspect. In my view, the latter is the appropriate choice for two reasons: the first and obvious reason that pluractionality is a type of event quantification. The second reason is related to the fact that perfect as such is not a phasal aspect category; only the resultative perfect is. Particularly the 'perfect of persistent situation' is a category with a wider scope than phasal aspect since it can easily take an expression of phasal aspect in its scope, as in (64) and (65):

(64) *Resistiram a admitir que*

muitos jovens têm estado dirigindo sob efeito de
 many young.PL AUX.PRS.3PL COP-TEMP.PTCP drive.GER under effect of
álcool ou atendendo ao telefone
 alcohol or answer.GER to-the telephone

'They refused to admit that many young people have been driving under the effect of alcohol or while answering the telephone'

('Comitê destaca que 80% das vítimas de trânsito em Porto Velho são homens', *Rondôniagora*, 8 de outubro de 2013) <www.rodoniagora.com>

(65) [on the introduction of a legal norm for sustainable hotels]

Mas tem começado a haver demanda para a implantação disso.
 but AUX.PRS.3SG begin.PTCP to exist.INF demand for the adoption of this

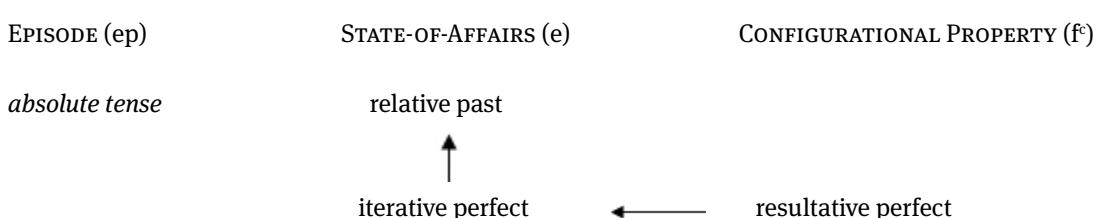
'But there is beginning to be (literally: there has been beginning to be) a demand for this [legal norm] to be adopted.'

(*Palestra do Conselho de Turismo da CNC*, Rio de Janeiro, 6 de março de 2013) <cnc.org.br>

In (64) the perfect has an expression of progressive aspect in its scope and in (65) an expression of ingressive aspect.¹⁶

The following representation applies to the past perfect, which has been shown to form the large majority of the uses of the perfect in present-day Brazilian Portuguese:

(66) The grammaticalization of the past perfect with *ter* in the 15th to 20th centuries



The schematic representation in (66) presupposes an internal hierarchy within the two aspectual and temporal operators at the layer of the State-of-Affairs. The data have shown that such a hierarchy does indeed exist: in example (39) the perfect with *ter* expresses iterative perfect in a past tense context, and (40) allows for both iterative and resultative readings.

It seems to be that the resultative use of *ter* in this construction does indeed precede the iterative usage in time. But given the generally low frequency of the perfect in (Brazilian) Portuguese, it is difficult to be sure of the temporal sequence of the grammaticalization events. In any case, there is no doubt that there was a resultative use (see examples (38) and the ambiguous (40)), which gradually disappeared. In addition, even if the iterative meaning arose in parallel with the resultative one, it is correct to assume that

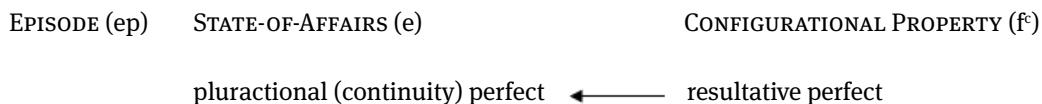
¹⁶ One might wonder if *começar a* + infinitive is really a grammatical expression of phasal aspect. I think it is, because the expression of ingression is not controlled by an agentive referent. For more details see Olbertz (1998: 216-218) on ingressive aspect and similar cases in Spanish.

resultativity represents a lower degree of grammaticalization than iterativity; and what the scarce data do confirm is that the diachronic development proceeded from resultativity to iterativity and not the other way around.

Although the perfect with *ter* frequently occurs in infinitival constructions, no grammaticalization has taken place with *ter*, for the simple reason that the infinitival perfect cannot express anything but anteriority (or: relative past).

The grammaticalization of the present perfect is less advanced. The way grammaticalization has proceeded would have to be represented as follows:

(67) The grammaticalization of the present perfect with *ter* in the 15th to 20th centuries



What the representation of grammaticalization in (67) does not account for is the semantic change of the pluractional present perfect into an pluractional continuity present perfect. The reason for this is that this process is not a matter of grammaticalization but of semantic specialization. In other words, it does not imply a categorial change, as the one from phasal aspect to quantificational aspect or from aspect to tense, but it is a category-internal change, which, in addition, occurs only after the form of the pluractional perfect has been fully grammaticalized. Anticipating on the FDG account of the grammaticalization of the form of the perfect with *ter*, let us have a look at the operator that represents the pluractional perfect as used from the 18th century onward:

(68) a. (plur-perf e_i)

The pluractional perfect operates on the State-of-Affairs (e_i). The brackets around the operator and the variable indicate the unity of these two components. When the non-continuation perfect becomes obsolete, i.e. when the perfect generally expresses ‘continuation’, the operator will be further refined. In (68b) this refinement is represented by means of the addition of the label “cont”:

(68) b. (plur-cont-perf e_i)

The increased complexity of the operator reflects the semantic specialization, which obviously is the cause of the decreased frequency of occurrence of the present perfect.

5.2 The formal changes of the perfect with *haver* and *ter*

Both *haver* and *ter* were verbs of possession before entering the grammaticalization process. As has been discussed widely in grammaticalization literature, lexical material entering grammar generally retains some features of its lexical origin on entering the grammatical system, which corresponds to Hopper’s (1991: 20) “principle of persistence”. When these lexical properties constrain the distribution of the grammatical element, they will have to be accounted for in FDG as lexical operators, which in the case of auxiliaries will take the form of ‘lexical auxiliaries’, i.e. verbal elements in the lexicon which contain an indication of their function and the constraints on their use within their meaning definition (Olbertz 2016).

The grammaticalization of *haver* with the past participle already started in Latin (see e.g. Pinkster 1987; Hertzenberg 2015) and must have been relatively advanced by the time of the first written documentation of early medieval Portuguese. On the other hand, the early medieval use of the perfect with *haver* is virtually restricted to transitive verbs, and agreement is predominant as long as the undergoer referent has the form

of a noun phrase.¹⁷ Therefore, the form of early medieval *haver* + participle is not yet a full auxiliary but a lexical auxiliary, i.e. a lexical item with a grammatical function. Lexical auxiliaries in FDG take the form of ‘combinations of partially instantiated frames’.¹⁸ Frames are primitives in FDG which “define the possible combinations of elements [...] for a certain language” (Hengeveld and Mackenzie 2008: 19). Normally, these frames are creatively filled within the dynamic top-down hierarchical structure of FDG. In the case of lexical auxiliaries, the constraints on their use are indicated in the lexical entry, thus restricting their applicability. In the case of the early medieval use of resultative *haver*, the lexical entry would have to read as follows:

(69) *haver_v*

MEANING: result from (x_1)’s previous involvement in f^c
 RL: (res f^c_1 : [$(f_{V1}) (x_1) (v_2) (f_{1'})$])
 ML: (Vp_1 : [$(^{\text{fin}}Vw_1: \text{haver}_v (Vw_1)) (ptcpVw_2)$] (Vp_1) (Np_1) (Xp_2))
 iff X in $Xp_2 = N$, then gender, number in $ptcp = \text{gender, number in } Np_2$

Apart from the meaning description in the second line, this lexical entry expresses the fact that at the Representational Level the verb *haver* functions as a resultative operator on the Configurational Property f^c_1 , which in turn consist of the main verb and its two arguments, the first of which is a concrete entity (x_1), probably human, as in all instances of the construction with *haver* in the 13th- to 19th-centuries section of my corpus. The third line of the lexical entry represents the Morphosyntactic Level, which contains instructions for the formal realization of the preceding semantic information. The verbal component (Vp_1) consists of the – in principle – finite verb form of *haver* (Vw_1) and the participial form of the main verb (Vw_2) plus the morphosyntactic expressions of the two arguments of which the first is a Np (which may be explicit or coded in the finite form of *haber*). The second one (Xp_2) may be of any nature, but in case it is a Np , the participle must agree with it in gender and number, as indicated in the last line of the lexical specification.

Although it is certainly not the case that formal grammaticalization always goes hand in hand with functional grammaticalization (Hengeveld et al. 2017: 3–5), in the case of *haver* there is strong evidence that the constraints are gradually lost in parallel with the loss of the resultative meaning. In other words, when *haver* comes to express relative past tense only, it functions as a full auxiliary, represented in FDG as an operator of anteriority to be applied to the State-of-Affairs layer (e_1):

(70) (ant e_1)

As regards the formal aspects of the grammaticalization of auxiliary *ter*, the developments are easier to account for due to its being a Portuguese innovation. According to the data provided in Section 3.2.1, the grammaticalization of *ter* began in the 15th century with mainly resultative uses. Initially *ter* has the very same properties in the participial construction as its predecessor: it occurs with transitive verbs only and the participle agrees in gender and number with the Undergoer argument. Therefore, the lexical entry for resultative *ter* exactly parallels the one given for *haver* above:

(71) *ter_v*

MEANING: result from (x_1)’s previous involvement in f^c
 RL: (res f^c_1 : [$(f_{V1}) (x_1) (v_2) (f_{1'})$])
 ML: (Vp_1 : [$(^{\text{fin}}Vw_1: \text{ter}_v (Vw_1)) (ptcpVw_2)$] (Vp_1) (Np_1) (Xp_2))
 iff X in $Xp_2 = N$, then gender, number in $ptcp = \text{gender, number in } Np_2$

17 This agreement is a remnant of an earlier construction stage in which the participle functions as a secondary predication describing a state of the possessee, in a similar way as in example (22).

18 The idea of combinations of partially instantiated frames was introduced to FDG by Keizer (2016) in order to account for idioms.

This lexical entry is valid for the period from the early 15th to the 16th century, when the perfect with *ter* is able to express the resultative perfect aspect, and it disappears with the loss of resultative aspect. But the form of the construction is still weakly grammaticalized when *ter* comes to express pluractional perfect. The corresponding description of the lexical auxiliary is somewhat different:

(72) *ter_v*

MEANING: take place iteratively or continuously from anteriority onward
 RL: (plur-perf e_1 : $(f^c_1: [(f_{V1})(x_1)(v_2)](f^c_1)) (e_1)$)

ML: $(Vp_1: [(^{\text{fin}}Vw_1; \text{ter}_v(Vw_1)) ({}^{\text{ptcp}}Vw_2)] (Vp_1)) (Np_1) (Xp_2)$

iff X in $Xp_2 = N$, then gender, number in ${}^{\text{ptcp}}$ = gender, number in Np_2

The meaning definition in the second line accounts for the specific meaning of the pluractional perfect. The description of the Representational Level (RL) shows that the pluractional perfect operates on the State-of-Affairs (e_1). The remainder of the structure is entirely identical to that in (71), thus accounting for the formal identity of the resultative and the pluractional perfect construction.

I have shown in Section 3.2.1 that the restriction to the combination with transitive verbs as well as agreement gradually disappear between the 16th and 18th centuries. From that time onward, the specific lexical entry in (72) disappears from the lexicon, and the pluractional perfect becomes a normal, fully grammatical item, a simple operator at the layer of the State-of-Affairs. The conditions that constrain the applicability of this grammatical item are not further specified in FDG, because they are inherent in the meaning of the pluractional perfect. The structure in (73b) reflects the further semantic specialization of the pluractional perfect into a pluractional continuity perfect, which we have discussed in Section 5.1.

(73) a. (plur-perf e_1)
 b. (plur-cont-perf e_1)

The relative past (or: anteriority) meaning occurs systematically in past tense contexts or in infinitival constructions when *ter* is already highly grammaticalized. Its expression takes the very same format as the one given in (70) for auxiliary *haver*. The fact that the latter is becoming obsolete in spoken Brazilian Portuguese is probably related to the general preference for *ter* in other functions in which it competes with *haver*, such as the expression of existential and modal meanings.

6 Summary and outlook

In this paper I have described the diachronic development and synchronic use of the Portuguese perfect in its realizations with the auxiliaries *ter* and *haver*. The perfect with auxiliary *haver* developed from resultative aspect to anteriority. With *ter*, the grammaticalization paths of the past and present perfect differ: the past perfect develops from resultative perfect aspect, via pluractional perfect, i.e. quantificational aspect, to anteriority; the present perfect does not come to express relative tense, but develops into quantificational aspect, and undergoes semantic specialization from pluractional perfect to pluractional continuity perfect. I have described the process of grammaticalization in the form and function of these constructions and I have shown how FDG accounts for the different stages in this process.

There are, however, at least two questions that remain for further research.

First, I have mentioned in Section 2 (particularly in Note 3) that in Brazilian Portuguese both the present and the past perfect are extremely scarce, even more so than in European Portuguese. In addition, I mentioned in Section 4 that there seems to be a tendency to restrict use of the perfect to infinitival (modal) constructions, where it is obligatory for the expression of anteriority. Indeed, there are indications that the perfect may be on its way to becoming obsolete in Brazilian Portuguese. A telling indication are the answers of some 20 informants to the question which of the following reformulations of example (8) (repeated here as (74) for convenience) they would prefer in oral usage.

(74) *O caseiro me disse que um sujeito havia estado lá e revistara a casa toda e não achara nada e fora embora.*
 the tenant me say. PST.PFV.3SG that a individual AUX.PST.IPFV.3SG
 COP-TEMP.PTCP there and scrutinize.PL.PFV.3SG the house all and not
 find.PL.PFV.3SG nothing and go.PL.PFV.3SG away

‘The tenant told me that an individual had been there and had scrutinized the entire house and had not found anything and had gone away.’ (Rubem Fonseca, *O seminarista*. 2009)

a. *O caseiro me disse que um sujeito tinha estado lá e tinha revisado a casa toda e não tinha achado nada e tinha ido embora.*
 the tenant me say. PST.PFV.3SG that a individual AUX.PST.IPFV.3SG
 COP-TEMP.PTCP there and AUX.PST.IPFV.3SG scrutinize.PTCP the house all
 and not AUX.PST.IPFV.3SG find.PTCP nothing and AUX.PST.IPFV.3SG go.PTCP away

‘The tenant told me that an individual had been there and had scrutinized the entire house and had not found anything and had gone away.’

b. *O caseiro me disse que um sujeito esteve lá e revistou a casa toda e não achou nada e foi embora.*
 the tenant me say. PST.PFV.3SG that a individual COP-TEMP.PST.PFV.3SG
 there and scrutinize PST.PFV.3SG the house all and not
 find. PST.PFV.3SG nothing and go. PST.PFV.3SG away

‘The tenant told me that an individual had been there and had scrutinized the entire house and had not found anything and had gone away.’

All informants had a strong preference for version (74b), in which all relative past tenses are expressed by means of the perfective past. So, is the perfective past on its way to ousting the perfect in its relative past function and perhaps also elsewhere? Interestingly, Barbosa (2014: 109) even claims that the perfective past can even substitute the perfect in its pluractional function. The (partial) solution of this puzzle would probably require a detailed descriptive and variationist approach.

Secondly, given that resultative perfect aspect is now extinct, are there other ways for the expression of resultativity in (Brazilian) Portuguese? As has been mentioned earlier, Cabredo et al. (2009), Laca (2010) and also Amaral and Howe (2014) claim that the construction in which lexical *ter* occurs with a secondary predication has a resultative function, and so does Castilho (2010: 425), who provides the following authentic example:

(75) *A gente tem uma série de dados levantados.*
 the people have.PRS.3SG a series of data.(M).PL collect.PTCP.M.PL
 ‘We have quite a few data collected.’

The lexical character of *ter* in this example can be gathered from the fact that the participle agrees in number and gender with the Undergoer referent [*uma série de*] *dados*. The secondary predication in (75) is indeed resultative. However, constructions of this type are too rare to be regarded as a kind of systematic resultative expression.

An alternative view is to consider the use of the passive with Actor specification as a form of expressing a resultative relation. The passive in Portuguese is much more frequent than in Spanish, where it is almost extinct from oral usage (Quesada 1997). What the passive with Actor specification and the resultative perfect have in common is the fact that the Undergoer is given pragmatic saliency (Camacho 2000). In addition, it seems that whenever the Undergoer refers to a result of some action effectuated by the Actor, then some kind of resultative relation is established:

(76) *Londres foi fundada pelos romanos.*
 London(F) COP.PST.PFV.3SG found.PTCP.F by-the Romans
 'London was founded by the Romans.'

The resultative 'flavour' of passive constructions is enhanced by the obligatory agreement of the participle in gender and number with the Undergoer referent. The relation between resultativity and the passive has been discussed from a typological point of view by Comrie (1981) and Dimitrova-Vulchanova (2012: 946–950), but to my knowledge the matter has not yet been systematically explored in (Brazilian) Portuguese.

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Uncommon abbreviations

COP-TEMP = copula with a temporary meaning (*estar*)
 FORM = formal address
 PLPF = synthetic pluperfect

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