

Tensed and non-tensed nominalization of the infinitive in Portuguese¹

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Abstract

This text presents an analysis of three types of nominalization of the infinitive in European Portuguese, characterized by distinct syntactic and semantic properties but all indicated by the presence of a determiner to the left of the infinitive. In the nominal infinitive, which has more nominal than verbal properties, a process is denoted, which is why culmination verbs are forbidden in most cases. In the literature it has also been stated that transitive verbs cannot be used as nominal infinitives. However, the presence of some aspectual modifiers that force a durative and unbounded process reading may allow the occurrence of these verbs. There is also the possibility of nominalizing a full infinitival clause, denoting a fact. Since this contains verbal and tensed properties, it may contain the inflected infinitive and in most cases involves the so called Aux-to-Comp movement, it is thus analyzed here as the nominalization of CP.

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However, there is an intermediate and mixed construction, with nominal and verbal properties, that may appear both with a non controlled PRO and a PRO controlled by a possessive. In both cases, the construction has a tensed nature, suggesting the nominalization of TP. De Miguel (1996), for Spanish, proposes that the infinitive marker is not a uniform element: in the nominal infinitive, *-r* is derivational; in the nominalization of a clause, *-r* is an inflectional marker. According to the framework of Alexiadou (2001) and Alexiadou et al. (2011), where the nominal or the verbal nature of a matrix category depends on the nominal and verbal functional categories that dominate a verbal root, I will propose that the so-called “derivational” *-r* is projected at the head position of *nP*, whilst the “inflectional” *-r* is projected at *AspP* and moves to *C* or *T*.

KEYWORDS: nominalization of an infinitival clause, nominal infinitive, verbal infinitive, European Portuguese, tense, aspect.

1. The problem

As noticed by several traditional grammarians (Silva Dias, E. 1970, Cuesta & Mendes da Luz 1971/1980, Cunha & Cintra 1984, among others), there is the possibility in European Portuguese for nominalizing the infinitive, indicated by the presence of a determiner to the left of the infinitive.

Examples (1), (2) and (3) illustrate distinct possibilities of realising this nominalization.³

(1) O gritar das pessoas surpreendeu-nos.
 the shoutINF of the people surprised us
 ‘the people’s shouting surprised us’

(2) O ter ela gritado surpreendeu-nos.
 the haveINF+3sg she shouted surprised us
 ‘the fact that she shouted surprised us’

(3) (a) O gritar surpreendeu-nos.
 the shoutINF surprised us
 ‘the shouting surprised us’

³ Here, I deliberately use the same verb in the examples, although there are semantic restrictions on the verbs that can appear in the nominal infinitive, an issue that will be largely discussed in this paper. As for example (3a), it is slightly marginal, the example (3b) or the equivalent regressive nominalization (*o grito*, the shout...) being much more acceptable. See paragraph 3.

- (b) Esse teu gritar surpreendeu-nos.
 that your shoutINF surprised us
 ‘your shouting surprised us’

The nominalized infinitive is followed by a genitive in (1), a nominative in (2), and is preceded by a possessive in (3b), while in (3a) no argument of the verb is expressed. Do these examples represent different types of nominalization of the infinitive? And which other syntactic and semantic properties characterize them?

The phenomenon has been studied in detail in Spanish and Italian, where the traditional proposal according to which the infinitive is a nominal form of the verb has been challenged to a certain degree, since there were clearly shown to be at least two different ways of nominalizing the infinitive, one with more nominal properties and another with more verbal properties (cf. Plann 1981, Bosque 1990, de Miguel 1996, Hernanz 1999, Vázquez 2002 and Ramírez 2003 for Spanish;⁴ Salvi 1983 and Zucchi 1993 for Italian;⁵ Meinschafer 2007 and Sleeman 2009 for French).⁶

The main criteria proposed by these authors as a means of distinguishing the two types of infinitives are the following:

- whether they accept a subject (a nominative) or a genitive;
- whether they accept all the argument structure of a verb realized or not;
- whether they accept modification by an adjective or adverb;
- whether they accept or reject modification by a restrictive relative clause;
- whether they accept or reject the realization of a non-reflexive argument;
- whether they accept all types of determiners or only the definite article;

⁴ Ramírez (2003) proposes that Spanish has not two but three possibilities of nominalization of the infinitive: (i) *Aquel escribir de Gabriel explica su fama* (nominal infinitive); (ii) *El escribir novelas ella explica su fama* (infinitive clause nominalization); (iii) *Su escribir novellas explica su fama* (mixed type).

⁵ Furthermore, in Italian it seems justifiable to propose not two but three constructions (cf. Vázquez 2002, Ramírez 2003): (i) *Il mormorare somesso del mare spiega la reazione di Maria* (nominal infinitive); (ii) *L’avere egli scritto quella lettera non implica che tu sia fuori dai guai* (infinitival clause nominalization); (iii) *Il suo mormorare parole dolci spiega la reazione di Maria* (mixed type). Vázquez (202: 146-7) argues in favour of three types of construction in Italian but only two in Spanish (see note 4).

⁶ Catalan and French have lost the possibility of verbal infinitives and infinitival clause nominalizations, only having (lexicalized) nominal infinitives, with genitives in *de*. However, Old French had, besides nominal infinitives, an infinitive with clear verbal properties (cf. Meinschafer 2007, Sleemann 2010). English has verbal and nominal gerunds and German has verbal and nominal infinitives (see Alexiadou *et al.* 2011 for an overview).

- whether they accept or not auxiliaries (compound, passive, modal, aspectual);
- whether they accept negation or not;
- the nature of the verbs that select the nominalization of the infinitive;
- the semantic nature of the verb in the infinitive.

The aim of this paper is to analyze the nominalization of the infinitive in European Portuguese and to argue in favour of the existence of not only two but three types of construction. To be more precise, I will argue for the distinction between the nominal infinitive, without temporal properties and illustrated by example (1); the nominalization of a full infinitival tensed clause, characterized by the occurrence of the inflected infinitive, which most of the time involves the so called “AUX to Comp” movement (as in example (2)); and a third and mixed type, illustrated by (3a) and (3b), with nominal and verbal properties, which seems to be the nominalization of a reduced infinitival clause and which will be analyzed as the nominalization of TP.

The text is organized in the following way: in **2.**, I give a description, based mainly on the bibliography in Spanish and Italian, of the main properties of the nominal infinitive and of the nominalization of a full infinitival clause, in **2.1.**, and of the nominalization of a reduced infinitival clause, in **2.2.**, in **3.**, I analyze in more detail the temporal and aspectual properties of the three constructions, distinguishing them ultimately from the lexicalized infinitives, which are true nouns. In **4.**, I present a syntactic analysis of the three constructions according to the model developed by Alexiadou (2001) and Alexiadou, Iordăchioaia & Schäfer (2011), and in **5.**, I present the main conclusions.

2. General properties of the different types of nominalization of the infinitive in European Portuguese

2.1. The nominal infinitive and the nominalization of a full infinitival clause

As a nominal construction, the nominal infinitive is characterized by the presence of a genitive (see (1) here repeated as (4)), may be modified by adjectives (5) or by a restrictive relative clause (6) and may be preceded by different types of determiners (7):⁷

⁷ Silva Dias, E. (1970: 217) furnishes examples such as *o nosso obedecer* (the our obeyINF, our obedience), *hum pedir brando e hum rogar suave* (a requestINF gentle and an imploreINF soft, ‘a gentle way of requesting and a soft way of imploring’), which seem to be instances of nominal infinitives.

- (4) O gritar das pessoas surpreendeu-nos.
 the shoutINF of the people surprised us
 ‘the people’s shouting surprised us’
- (5) O gritar constante das pessoas surpreendeu-nos.
 the shoutINF constant of the people surprised us
 ‘the people’s constant shouting surprised us’
- (6) O gritar das pessoas que se fez sentir durante o assalto
 the shoutINF of the people that we heard during the attack
 incomodou-nos muito.
 disturbed us a lot
 ‘the people’s shouting that we heard during the attack disturbed us a lot’
- (7) Esse / aquele gritar das pessoas surpreendeu-nos.
 that shoutINF of the people surprised us
 ‘that people’s shouting surprised us’

By contrast, the nominalization of an infinitival clause is characterized by the presence of a subject, either a nominative pronoun (as in (2)) or a full DP (as in 8):

- (8) O gritarem as pessoas surpreendeu-nos.
 the shoutINF+3pl the people surprised us
 ‘the fact that people shouted surprised us’

Furthermore, in the nominalization of an infinitival clause, the expression of the whole argument structure of the verb is a possibility: see the internal argument *esses poemas* ‘these poems’, in (9), a PP *de casa* ‘from home’ in (10) or no argument at all, according to the type of V.

- (9) O ter ela escrito esses poemas não me espantou.
 the haveINF+3sg she written these poems didn’t surprise me
 ‘the fact that she wrote these poems didn’t surprise me’
- (10) O saírem de casa tão cedo espantou-nos de verdade.
 the leaveINF+3pl from home so early surprises us truly
 ‘the fact that they left home so early truly surprised us’

Only adverbs, not adjectives, can be found as modifiers of the verbal form in the nominalization of an infinitival clause, as illustrated in (11)-(12) and (13)-(14):

- (11) O gritarem constantemente as pessoas surpreendeu-nos.
 the shoutINF+3pl constantly the people surprised us
 ‘the constant shouting of the people surprised us’

(12)* O gritarem constante as pessoas surpreendeu-nos.
 the shoutINF+3pl constant of the people surprised us
 ‘the constant shouting of the people surprised us’

(13) O ter ela constantemente gritado surpreendeu-nos.
 the haveINF+3sg she constantly shouted surprised us
 ‘the fact that she had shouted constantly surprised us’

(14)* O ter ela constante gritado surpreendeu-nos.
 the haveINF+3sg she constant shouted surprised us
 ‘the fact that she shouted constantly surprised us’

While the nominal infinitive may be modified by a restrictive relative clause (as we saw in (6)), this is impossible with the nominalization of an infinitival clause, which can only be modified by a non-restrictive clause (15):⁸

(15) O terem as pessoas gritado, o que constituiu um aviso
 the haveINF3pl the people shouted which was a warning
 de que algo estava mal, foi impressionante.
 of something wrong was impressive
 ‘the fact that (the) people shouted, which was a warning of something wrong, was impressive’

This difference can be explained because in (6) we have a nominal expression, the nominal infinitive, denoting an activity, while in (13) we have a clause, denoting a fact. Under these conditions, a non-restrictive relative clause is always possible, expressing a comment or an explanation concerning the fact denoted by the previous clause.

Another criterion for the definition of the nominalization of an infinitival clause is the presence of the Inflected Infinitive, a property of Portuguese and thus clearly not observable in the literature for Spanish and Italian. See the examples already presented in (2), (8), (9), (10), (11) and (15). As these examples show, forms such as “gritarem” or “terem” are inflected, with Person and Number morphemes in the verbal form. This is impossible in the nominal infinitive, which cannot exhibit any agreement endings.

Another phenomenon frequently referred to in the bibliography is the fact that the nominalization of an infinitival clause can contain an argument clitic selected by the verbal form, as in (17), contrary to the nominal infinitive, which cannot contain an argument clitic: compare (18), with a genitive complement *de palavras*, ‘of words’, selected by *o dizer*, ‘the saying’, with

⁸ The non-restrictive clause here introduced by the *wh* form *o que* is itself a nominal complex apposition, as Quirk *et al.* (1985) have shown for English.

(19), which is ungrammatical, because the nominal complement cannot be replaced by the clitic *las*, ‘them’ (the examples being taken from Plann 1981: 225).⁹

(16) O dizer constantemente palavras obscenas irrita qualquer pessoa.
the sayINF constantly words obscene irritates everybody
‘the fact that they constantly say obscene words irritates everybody’

(17) O dizê-las constantemente irrita qualquer pessoa.
the sayINF-clitic3pl constantly irritates everybody
‘the fact that they say them constantly irritates everybody’

(18) O dizer constante de palavras obscenas irrita qualquer pessoa.
the sayINF constant of words obscene irritates everybody
‘the constant saying of obscene words irritates everybody’

(19)* O dizê-las constante irrita qualquer pessoa
the say-clitic3pl constant irritates everybody

Another difference between nominal infinitive and the nominalization of an infinitival clause is the determination.^{10 11}

⁹ It has been noticed (Plann 1981, de Miguel 1996 and Ramírez 1993) that in Spanish reflexive clitic pronouns are possible in the nominal infinitive, as in (i) and (ii), mainly if they are inherent or false, because these are some sort of affixes without argument status, in contrast with argument non-reflexive clitics, as in (17) in the text: (i) *Ese descuidado afeitarse de Juan...* (that careless shaveINF-himself(cl) of John, ‘that careless shaving of John’s’); (ii) *Ese andarse por las ramas de Juan...* (that walkINF-himself(cl) along the branches of Juan, ‘that beating about the bush of John’s’). Olga Soriano (p.c.) pointed out to me that the difference between true and false reflexives in Spanish is not so clear as has been stated in some literature. Italian also admits true and inherent reflexives with nominalized infinitives: (iii) *Il radersi di Piero* (the shaveINF-himself(cl) of Piero), ‘Peter’s shaving himself’ (argument reflexive); (iv) *Il vergognarsi di Piero* (the be ashamedINF-himself(cl) of Piero, ‘Peter’s being ashamed of himself’ (inherent reflexive). This matter awaits further research.

¹⁰ The article functions more as a marker of the nominal nature of the construction than as an expression of definiteness (as also suggested by Giusti 2002). Romanian, that we will not analyze here, also has the possibility of using an article with a supine.

¹¹ Ceita, a writer of the XVII century, quoted by Silva Dias, E. (1970: 217), has a sentence such as (i): (i) “Este não achar hua alma fora de Deus cousa em que se possa empregar mostra o quem cativa e rendida lhe está” (this not findINF one soul out of God thing where one can employ shows that (...) ‘the fact that the soul far from God does not find anything where it may be employed shows that (...)’). This may show that the nominalization of an infinitival clause could be preceded by a demonstrative, an option that seems to have disappeared in modern Portuguese.

Comparing with the presence of different types of determiners in the nominal infinitive, as in (7), here repeated as (20), the nominalization of an infinitive clause only accepts a definite article, as in (2) and (9); see also the ungrammaticality of (21):

(20) Esse / aquele gritar das pessoas surpreendeu-nos.
 that shoutINF of the people surprised us
 ‘that shouting of the people surprised us’

(21)* Esse / aquele ter ela gritado surpreendeu-nos.
 that haveINF+3sg she shouted surprised us

The properties already proposed allow us to distinguish, for the moment, two types of nominalization of the infinitive: one with more nominal properties than verbal properties, and with no tense, the nominal infinitive; and another one, with more verbal properties than nominal properties. The possibility of a subject and of agreement in the second infinitive shows that it clearly has a clausal / propositional status.¹²

As a consequence, the nominalization of an infinitival clause may contain negation, temporal, modal and aspect auxiliaries (22) – (25).¹³

(22) O não vivermos cem anos é uma sorte.
 the not liveINF+1pl a hundred years is a lucky thing
 ‘the fact that we don’t live for a hundred years is a lucky thing’

(23) O termos ganho dinheiro é o que nos move.
 the haveINF+1pl won money is what motivates us
 ‘the fact that we won money is what motivates us’

¹² There are some ambiguous structural examples, such as those where there is neither a nominative nor a genitive (see (3a), here renumbered as (i) and (ii)):

(i) O gritar surpreendeu-nos (the shoutINF surprised us, ‘the shouting surprised us’)

(ii) “O sofrer também é gozo” (a poster on the day of the Portugal–Brazil football game, 25/6/2010) (the sufferINF also is pleasure, ‘the suffering is also a pleasure’). In (i) and in (ii) *o gritar*, *o sofrer* may be understood as the activity of shouting or suffering of someone and there would be a nominal infinitive; it may also be understood as the fact that someone shouts or suffers, and in this case it is a nominalization of an infinitival clause, with a null subject and an arbitrary reading. Regarding the syntax of both constructions, see 4.

¹³ The possibility of the infinitives having Tense has already been referred to by Stowell (1982), Raposo (1987) and Martin (2001), among others; for European Portuguese, see Ambar (1998), Duarte (2003: 623), Duarte *et al.* (2005) for a syntactic perspective.

- (24) O (ela) poder ter escrito um poema foi ótimo.
 the (she) mayINF+3sg have written a poem was wonderful
 ‘the possibility of writing a poem was wonderful’
- (25) O ser um povo despertado por um mito acontece.
 the beINF+3g a people awoken by a myth happens
 ‘the fact that a people may be awoken by a myth can happen’

On the contrary, the nominal infinitive has no propositional nature and no Tense, and none of the elements referred to may appear (26) - (30):

- (26)* O não correr das águas...
 the not runINF of the waters
- (27)* O ter despertado do povo...
 the haveINF awoken of the people
- (28)* O brando estar a murmurar das águas...
 the soft to be to whisperINF of the waters
- (29)* Escutei o poder murmurar das águas.
 (I) listened to the may / can whisperINF of the waters
- (30)* De repente sentimos o começar a estalar da madeira
 (we) suddenly felt the begin to crackINF of the wood

The nature of the predicates that select both types of construction is also important. Meinschafer (2007), among others, shows that the nominal infinitive appears in all sorts of contexts, i.e., selected by all kinds of predicates in the matrix sentence, including prepositions (see our examples (31) – (34) from *CetemPúblico*).¹⁴

- (31) “(...) colocou dois vasos com água (...), que se foi sujando – e enchendo de moedas – com *o passar dos dias*.”
 ‘(he) put two glasses of water (...), which were becoming dirty and full of coins, with the passing of the days’

¹⁴ In the long examples from *CetemPúblico*, only the translations, and not the glosses, are given; I have indicated the nominal infinitives and the nominalization of an infinitival clause in italics.

- (32) “A autoridade da polícia, explicou mais tarde, «acaba com o fechar das portas».”
 ‘the authority of the police, he explained later, finishes with the closing of the doors’
- (33) “O ministério francês dos Negócios Estrangeiros declarou ontem, em Paris, que estava a seguir a par e passo o *evoluir da situação em Lomé* (...)”
 ‘The French Foreign Minister declared yesterday in Paris that he was following the development of the situation in Lome’
- (34) “O Ocidente espera que isso signifique o *anunciar de uma nova era de cooperação*.”
 ‘The West hopes that this means the announcement of a new era of cooperation’

On the contrary, the nominalization of an infinitival clause is selected simply by certain verbal predicates, essentially factive / evaluative predicates (35) – (37), such as *mover* (to motivate), *preocupante* (worrying), i.e. only those predicates that select clauses with some nominal properties and that may contain the inflected infinitive (cf. Kiparsky & Kiparsky 1971, Raposo 1987, Mateus *et al.* 1989: 273):

- (35) “Não é o *ganhar dinheiro* que me move.”
 not is the earnINF money that me motivates
 ‘It is not the fact that I earn money that motivates me’
- (36) “O que me move é o *fazer trabalhos diferentes*.”
 what me motivates is the performINF works different
 ‘what motivates me is the fact that I perform different works’
- (37) “Preocupante, também, tanto em Portugal como no Brasil, é o número (...) de viciados em futebol (...), programas de televisão tipo 1, 2, 3 e (...) o vício do vazio, o *estar viciado em não fazer nada* (...)”
 ‘What is worrying, both in Portugal and Brazil, is the increasing number of those addicted to football (...), TV programs such as 1, 2, 3 and the vice of emptiness, the fact that people are addicted to doing nothing (...)’

2.2. The nominalization of a reduced infinitival clause, a mixed type

After the presentation of the main properties of the nominal infinitive and the nominalization of an infinitival clause, let us return now to (3a) and (3b), here renumbered as (38) and (39), and other examples:

- (38) O gritar surpreendeu-nos.
 the shoutINF surprised us
 ‘the shouting surprised us’
- (39) Esse teu gritar surpreendeu-nos.
 that your shoutINF surprised us
 ‘the fact that you shouted surprised us’
- (40) O beber continuamente cerveja faz mal à saúde.
 the drinkINF continuously beer is bad for the health
 ‘the fact that one drinks beer continuously is bad for one’s health’
- (41) Esse teu escrever poemas é uma coisa linda!
 that your writeINF poems is a thing beautiful
 ‘the fact that you write poems is a beautiful thing’

From these examples, we can see that they may have either an arbitrary meaning (38, 40), without any possessive determiner, or a specific and deictic meaning, expressed by the presence of a possessive, usually preceded by a demonstrative (39, 41).

Let us first take an example of the type exemplified in (40). As an example of the nominalization of an infinitival clause, if we were to use an explicit subject, as in (42), or the inflected infinitive, as in (43), the construction would be confounded with what we have called the nominalization of a full infinitival clause; in these circumstances, the two examples are slightly marginal, because *fazer mal à saúde*, ‘to be bad for the health’, without any possessive determiner, is a generic predicate, not a suitable predicate for a clause that has as a specific subject *o Pedro*, ‘Peter’ in (42), or *nós*, ‘us’ (in 43). Therefore, with a specific meaning only the examples in (44) and (45) are acceptable, because they contain explicit possessives (*à saúde dele*, ‘for his health’, *à nossa saúde*, ‘for our health’):

- (42) ? O beber o Pedro continuamente cerveja faz mal à saúde.
 the drinkINF+3sg Peter continuously beer is bad for the health
 ‘the fact that Peter drinks beer continuously is bad for the health’
- (43) ? O (nós) bebermos continuamente cerveja faz mal à saúde.
 the (we) drinkINF+1pl continuously beer is bad for the health
 ‘the fact that we drink beer continuously is bad for the health’
- (44) O beber o Pedro continuamente cerveja faz mal à saúde dele.
 the drinkINF+3sg Peter continuously beer is bad for his health
 ‘the fact that Peter drinks beer continuously is bad for his health’

- (45) O (nós) bebermos continuamente cerveja faz mal à nossa saúde.
 the (we) drinkINF+1pl continuously beer is bad for our health
 ‘the fact that we drink beer continuously is bad for our health’

Such examples as (38) and (40) are then the reduced version of the nominalization of an infinitival clause, with an arbitrary meaning, without an explicit subject, without inflected infinitive and without any Aux to Comp movement.

Let us now examine the specific type represented by the examples (39) and (41), a rare construction in the corpus referred to, but extremely interesting nonetheless. The presence of the demonstrative and possessive in both examples, the impossibility of a subject (46), the impossibility of the inflected infinitive (47), and the possibility of an adjective (48), render this form close to the nominal infinitive:

- (46)* O seu gastar ela muito dinheiro.
 (the) her wasteINF+3sg she much money

- (47)* Este nosso escrevermos à pressa só nos prejudica.
 this our writeINF+1pl in a hurry is bad for us

- (48) Esse teu contínuo gritar é irritante.
 that your continuous shoutINF is irritating
 ‘the fact that you shout continuously is irritating’

But this kind of nominalization of the infinitive accepts DP objects, normally bare nouns, as in (41, 51, 52),¹⁵ accepts negation (50), can accept a passive auxiliary (50),¹⁶ can be modified by an adverb, including manner (51) or aspectual adverbs (52) and is normally selected by evaluative / factive predicates (*irritante*, ‘irritating’, *ótimo*, ‘very good’, *aborrecido*, ‘boring’, *um perigo*, ‘a danger’).¹⁷

- (49) Este seu não falar é irritante.
 this his / her not speakINF is irritating
 ‘the fact that he / she does not speak is irritating’

¹⁵ As Pilar Barbosa pointed out to me (p.c), a full DP is ungrammatical: (i) *Esse teu escrever os poemas é uma coisa linda! (this your writeINF the poems is a beautiful thing, ‘the fact that you write the poems is a beautiful thing’), which means that the bare noun is incorporated in the verb form.

¹⁶ If a possessive is present, it occupies the position between the demonstrative and the auxiliary: (i) Este nosso ser constantemente ultrapassado pelos acontecimentos é aborrecido (this our beINF constantly overtaken by events is boring, ‘the fact that we are constantly overtaken by events is boring’).

¹⁷ Of course, aspectual adjectives and aspectual adverbs cannot co-occur.

- (50) Este ser ultrapassado constantemente pelos acontecimentos é aborrecido.
 this beINF overtaken constantly by the events is boring
 ‘the fact that one is constantly overtaken by events is boring’
- (51) O teu contínuo conduzir camiões imprudentemente representa
 the your continuous driveINF trucks carelessly represents
 um perigo (adapted from Ramírez 2003:122)
 a danger
 ‘the fact that you continuously drive lorries trucks carelessly represents
 a danger’
- (52) O teu conduzir camiões constantemente / continuamente representa
 the your driveINF trucks constantly / continuously represents
 um perigo.
 a danger
 ‘the fact that you constantly / continuously drive trucks presents a
 danger’

The last properties presented above bring this form close to the nominalization of an infinitival clause, since they show that it has more verbal properties than the nominal infinitive and that it is a tensed domain. The tensed nature of the whole construction is confirmed by the fact that it can contain an argument reflexive clitic (53), if we accept that the host of a clitic is V in T:¹⁸

- (53) Esse seu magoar-se sempre que vai fazer
 this his hurtINF HIMSELF(cl)always that (he) goes to practise
 desporto é um pouco preocupante.
 sports is a bit worrying
 ‘the fact that he always hurts himself whenever he goes to practise
 sports is a bit worrying’

This form of nominalization of the infinitive is imperfective, not accepting the auxiliary *ter*, ‘to have’, (54) or other aspectual auxiliaries (55):

- (54)* Este teu ter feito bolos para a festa foi óptimo!
 this your haveINF made cakes for the party is marvellous
 ‘the fact that you have made cakes for the party is marvellous’

¹⁸ As Pilar Barbosa also remarked to me (p.c), a non-reflexive argument is more difficult to accept: (i) ? Esse seu magoar-nos sempre que diz qualquer coisa é triste (this his / her hurtINF us(cl) always that he / she says something is sad, ‘the fact that he / she always hurts us when he / she says something is sad’). I leave this issue for further research.

- (55)* Esse seu estar a fazer bolos para a festa foi ótimo!
 this his / her be makeINF cakes for the party was marvellous
 ‘the fact that he / she was making cakes for the party was marvellous’

So this type of construction has mixed properties: it accepts adverbs and it seems to be a tensed domain, containing an argument reflexive clitic; it has a nominal nature due to the presence of determiners and even of adjectives. When it contains a demonstrative it has a strong deictic value, which means that it normally denotes an ongoing activity of the speaker, the addressee or a third person. The meaning of activity is dominating and more related to contextual factors than to the lexical nature of the verb.

The analyses conducted until now thus seem to suggest that in European Portuguese there are two main possibilities, the nominal infinitive and the nominalization of an infinitival clause. But the nominalization of the infinitival clause in fact includes two different constructions: the nominalization of an infinitival clause with a subject, with the inflected infinitive and in most cases with Aux to Comp movement; and a mixed type, with nominal and verbal properties, which can have either an arbitrary or a specific meaning, the latter being expressed by the presence of a demonstrative and a possessive. Neither alternative of this mixed type has explicit subject, inflected infinitive or Aux to Comp movement.

Before undertaking a syntactic analysis in paragraph 4, we wish to clarify some temporal and aspectual properties of the constructions.

3. Temporal and aspectual properties of these constructions

One of the most interesting discussions regarding the constructions under study is their temporal and aspectual properties and the attempt to establish whether there are semantic restrictions on the nature of the verb that is nominalized.

Analyzing temporal and aspectual properties of the nominalization of an infinitival clause in Spanish – which she still calls ‘the verbal infinitive’ – de Miguel (1996: 32) shows that it may be both imperfective and perfective. It is imperfective when the infinitival clause denotes an event that is under way and that may be simultaneous, past, present or future in relation to the moment of the speech act, explaining the grammaticality of sentences such as (56), with a present, past or future form in the matrix sentence:

- (56) O chegar a filha tão tarde a casa traz / trouxe /
 the arriveINF+3sg the daughter so late to home worries / worried /
 trará preocupação.
 will worry
 ‘the fact that our daughter is arriving home so late worries / worried /
 will worry us’

It is perfective when the perfective form of the infinitival clause (with the presence of the auxiliary *ter*, ‘to have’) means that the event described by the infinitive is past with respect to the event denoted by the main predicate (57); this is why the sentence is ungrammatical if it contains *ter*, ‘to have’, in the infinitival clause and future in the matrix sentence (see again 57):

- (57) O ter chegado a filha tão tarde a casa ontem
 the haveINF+3sg arrived the daughter so late at home yesterday
 traz/trouxe / * trará preocupação.
 worries/worried / * will worry
 ‘the fact that our daughter arrived home so late yesterday worries /
 worried / will worry us’

The temporal differences between (56) and (57) (any tense in (56) and past tense in (57)), the possibility of their containing temporal adverbs (as in (57)) and the possibility of the inflected infinitive in the examples, all this shows that the nominalization of an infinitival clause is capable of expressing tense.

On the contrary, the nominal infinitive denotes no tense, combining with any tense of the matrix clause, as in (58) and (59):

- (58) O gritar das pessoas faz / fez / fará impressão.
 the shoutINF of the people worries / worried / will worry us
 ‘the people’s shouting worries / worried / will worry us’
- (59) O cantar dos Alentejanos causa-me / causou / causará
 the singINF of the people from Alentejo fills / filled / will fill me with
 emoção.
 emotion
 ‘the people’s singing from Alentejo fills / filled / will fill me with
 emotion’

Moreover, it is impossible to find the auxiliary *ter* in any nominal infinitive, as we have already seen in (27), here renumbered as (60):

- (60)* O ter despertado do povo...
 the beINF awoken of the people

As for inner aspect values, again the nominalization of the infinitival clause is different from the nominal infinitive: from (35) – (37), presented above, we can see that an infinitival clause that is nominalized may contain all sorts of verbs, such as *ganhar*, ‘to win’, *fazer*, ‘to do’, *estar viciado*, ‘to be addicted’. All verbs may appear in this sort of clause because what is denoted is a fact, aspectually unrestricted.

As for nominal infinitives, the dominant meaning of the nominal infinitive is activity or process, as de Miguel indicated for Spanish.¹⁹

It is thus expected that there will be semantic restrictions on the verb predicates that can appear in the nominal infinitive. De Miguel (1996), for Spanish, proposes that the nominal infinitive cannot contain either achievement verbs (e.g. *llegar*) (61) / (62), or accomplishments (e.g. *comprar*, ‘to buy’, *construir*, ‘to build’) (63) / (64), contrary to what happens in the nominalization of an infinitival clause. See some of her examples:

- (61)* El intenso llegar de Pedro a la habitación
the intense arriveINF of Peter at the house
- (62)* El llegar tardío de Juan nos preocupa a todos.
the late arriveINF of John worries us
- (63)* El comprar una casa de Juan nos alegró.
the buyINF a house of John filled us with joy
- (64)* El rápido construir la casa de los albañiles...
the fast buildINF the house of / by the workers

However, if a transitive verb such as *construir* is followed by a direct object formed by a bare noun, the nominal infinitive is again possible:

¹⁹ Notice that in European Portuguese there are also suffix deverbal nominalizations in *-da*, *-mento*, *-ção*, among other suffixes, and regressive nouns, as in (i) and (ii):
(i) O grito das pessoas durou cinco minutos / fez impressão. (event-process / result)
the shout (regressive derivation) lasted five minutes / was impressive
‘the activity of shouting / the shout of the people lasted five minutes / was impressive’
(ii) O canto dos Alentejanos teve lugar durante a missa / causou-me emoção
(event-process / result)
the sing (regressive derivation) of the Alentejanos occurred during the mass / filled me with emotion
‘the activity of singing / the song of the Alentejanos occurred during the mass / filled me with emotion’

As the translations already show, suffix deverbal nominalizations and regressive nominalizations are generally ambiguous between an event and a result meaning (as largely developed in Grimshaw 1990), while the nominal infinitive is mostly the expression of a process, as we have seen. All this means that we see no difference regarding the component of the grammar where the formation of a suffix deverbal nominalization or of a nominal infinitive takes place. Adopting the general view of Distributed Morphology, we think that all these processes occur in the syntax, and it is the different functional categories with which an acategorial root merges and their features (in a bottom-up direction) that explain the “morphological” history of the word or of the derivation of the syntactic construction.

- (65) El construir casas de los albañiles...
 the buildINF houses of / by the workers
 the activity of house building by the workers

This is possible because in (65) the direct object is incorporated into the verb and enables the process or activity reading (Bosque 1990: chap. 7).²⁰

Let us see if this restriction also occurs in Portuguese. Example (66), containing a nominal infinitive with *morrer*, ‘to die’, a culmination verb, is ungrammatical, contrasting not only with the corresponding nominalization of a clause (67) but also with the suffixal / regressive deverbal nominalization (68):²¹

- (66)* O morrer de Saramago não nos surpreendeu.
 the dieINF of Saramago didn’t surprise us

- (67) O ter morrido Saramago não nos surpreendeu.
 the haveINF died Saramago didn’t surprise us
 ‘the fact that Saramago died didn’t surprise us’

- (68) A morte de Saramago não nos surpreendeu.
 the death of Saramago didn’t surprise us
 ‘Saramago’s death didn’t surprise us’

The same is the case with *nascer*, ‘to be born’; see the differences between (69), (70) and (71):

- (69)* O nascer da bebé foi uma bênção.
 the beINF born of the baby was a blessing

- (70) O ter nascido a bebé foi uma bênção.
 the haveINF been born the baby was a blessing
 ‘the fact that the baby was born was a blessing’

- (71) O nascimento da bebé foi uma bênção.
 ‘the baby’s birth was a blessing’

²⁰ Cf. for Spanish and Italian: (i) * El cantar estas coplas de Lola nos emociona; (ii) El cantar coplas de Lola nos emociona; (iii) Ese continuo beber cerveza de Juan (Bosque 1990: 156); (iv) Quel continuo bere birra di Gianni (Vázquez 2002).

²¹ Petra Sleeman (p.c.) explained to me that Dutch allows unaccusative verbs in the nominal infinitive with “of-phrases”, which suggests that Dutch is not sensitive to the same aspectual restriction that pertains in Spanish and Portuguese.

From these examples we conclude that culmination / achievement verbs are not usual in the nominal infinitive in European Portuguese.

Nevertheless, in a search in *CetemPúblico* corpus, we were able to find a great diversity of verbs as to lexical aspect properties; the following list illustrates this diversity:

- (72) (a) *o anunciar de uma nova era de cooperação*, ‘the announcement / announcing of a new era of cooperation’
 (b) *o aproveitar da notícia do dia*, ‘the benefiting from the news of the day’
 (c) *o aproximar da Expo-98*, ‘the approaching of Expo-98’
 (d) *o bater das peças de dominó*, ‘the striking of the domino pieces’
 (e) *o clarear das águas*, ‘the clearing of the waters’
 (f) *o crescer do bem-estar social*, ‘the growth in social well-being’
 (g) *o crescer do gosto pela ópera*, ‘the growth in appreciation of the opera’
 (h) *o despertar de novos beneméritos*, ‘the appearance of new benefactors’
 (i) *o evoluir da situação no Lomé*, ‘the development of the situation in Lomé’
 (j) *o fechar das portas*, ‘the closing of the doors’
 (k) *o filosofar característico do autor*, ‘the characteristic philosophizing of the author’
 (l) *o fluir natural do drama*, ‘the natural flow of the drama’
 (m) *o grasnar do velho rádio de pilhas*, ‘the crackling of the old battery radio’
 (n) *o inventar do imaginário português*, ‘the invention of the Portuguese visionary’
 (o) *o marulhar das águas*, ‘the surging of the waters’
 (p) *o passar dos dias*, ‘the passing of the days’
 (q) *o quebrar do sonho*, ‘the breaking of the dream’
 (r) *o raspar do medo nas lages*, ‘the scraping of the fear on the flagstones’
 (s) *o renascer de uma velha reivindicação*, ‘the reviving of an old claim’
 (t) *o surgir de propostas globais internacionalmente relevantes*, ‘the rise in internationally relevant global proposals’
 (u) *o troar de uma voz vinda das profundezas daquelas águas turvas*, ‘the thundering of a voice coming from the depths of those troubled waters’
 (v) *o virar de uma página*, ‘the turning / turn of a page’

In this long list of examples of nominal infinitives, we can find: (1) inergative verbs (*troar*, ‘to thunder’, *grasnar*, ‘to crackle’, *evoluir*, ‘to develop’,

marulhar, ‘to surge’, *aproximar*, ‘to approach’, *fluir*, ‘to flow’, *filosofar*, ‘to philosophize’); (2) unaccusative verbs (*renascer*, ‘to be reborn’, ‘to revive’, *surgir*, ‘to rise’, *criar*, ‘to grow’, *acordar*, ‘to wake up’); (3) transitive verbs or verbs of alternation (*aproveitar*, ‘to benefit’, *anunciar*, ‘to announce’, *bater*, ‘to strike’, *raspar*, ‘to scrape’, *virar*, ‘to turn’, *passar*, ‘to spend’, *quebrar*, ‘to break’, *fechar*, ‘to close’, *inventar*, ‘to invent’, *clarear*, ‘to clear’).

As regards the first group, they are aspectually process or activity verbs and their appearance in the nominal infinitive is expected.

As regards the second group, the unaccusative verbs, they are normally achievement verbs, which would present a problem for de Miguel’s hypothesis. But a more detailed analysis of the corpus allows us to understand why they are used. See, for instance, the following examples, with *renascer*, ‘to be reborn’ and *surgir*, ‘to appear’:

(73) “De algum modo é o *renascer de uma velha reivindicação concelhia* e o relançar da polémica dos novos municípios.”

‘in a certain way it is the reviving of an old claim (...)’

(74) “Espera-se (...) uma útil troca de experiências (...), mais do que o *surgir de propostas globais internacionalmente relevantes*.”

‘(...) we expect (...) a useful exchange of ideas (...) rather than the appearance of global proposals (...)’

We see that in (73), in *renascer*, the prefix *re-* turns the V into an iterative verb, close to process verbs. As for (74), the direct complement is a bare noun, and so the process or activity meaning is favoured by the nature of the complement, which is incorporated, as we have seen before.

Even with *nascer*, ‘to be born’, followed by an indefinite expression, the nominal infinitive may be accepted, favoured by the idiomatic meaning present in (75):²²

(75) Isto foi o *nascer de uma bela amizade*.

this was the beginning of a beautiful friendship

Let us return to other examples in (72). In some of the examples there are nominal infinitives formed from transitive / alternation verbs such as *quebrar*, ‘to break’, *fechar*, ‘to close’, *clarear*, ‘to clear’, *aproveitar*, ‘to benefit’, *inventar*, ‘to invent’, which can be formed as nominal infinitives followed by an internal argument as genitive.²³ It has also been stated that transitive verbs cannot be used in the nominal infinitive even with an internal

²² I thank Pedro Martins for this example.

²³ Under these circumstances, our examples are not of the same type as de Miguel’s (63) and (64), which contain the external argument as a genitive.

argument as genitive (see 76, 78), contrary to the corresponding suffixal nominalizations (77, 79) (Vázquez 2002: 149):

(76)* El construir de la ciudad (Spanish)
the buildINF of the city

(77) La construcción de la ciudad
'the building of the city'

(78)* Il costruire della città (Italian)
the buildINF of the city

(79) La costruzione della città
'the building of the city'

Although we do not contest the ungrammaticality of (76) and (78), we can suppose that the ungrammaticality of these examples is not a matter of genitive case assignment (contra Vázquez 2002)²⁴ and that here there is a real aspectual problem.²⁵

In fact, if we have nominal infinitives with verbs such as *fechar*, 'to close', *aproveitar*, 'to use', *destruir*, 'to destroy', *construir*, 'to build', in contexts that favour a process and unbounded reading (intensive, habitual or iterative), the examples are valid:

(80) O contínuo fechar das portas por parte da polícia
the continuous closeINF of the doors by the police
dificultou a investigação.
made the investigation difficult
'the continuous closing of the doors by the police made the investigation difficult'

(81) O constante aproveitar das notícias do dia por parte dos
the constant exploit of the daily news by the
jornalistas faz parte da sua actividade.
journalists is part of their activity
'the constant exploiting of the daily news by the journalists is part of their activity'

²⁴ Vázquez (2002: 152-4) considers that the ungrammaticality of (76) and (78) is not an aspectual question but is a Relativized Minimality effect because the internal argument to check the genitive case would cross a subject PRO.

²⁵ Some Spanish speakers accept examples such as *el constante cerrar la puerta de Juan*, which shows that a nominal infinitive formed from a transitive verb modified by an adjective that forces the iterative reading, with the external argument as genitive and the internal argument as accusative, is possible, which is explained by our analysis.

- (82) O ininterrupto destruir da cidade por parte do
 the constant destroyINF of the city by the
 exército inimigo foi terrível.
 enemy army was terrible
 ‘the constant destruction of the city by the enemy’s army was terrible’
- (83) O frequente construir de uma segunda habitação em
 the frequent buildINF of a second house on
 terrenos reservados é um flagelo para o ambiente.
 reserve land is a calamity for the environment
 ‘the frequent building of a second house on reserve land is a calamity
 for the environment’

We can therefore conclude that transitive verbs, even those that are generally considered accomplishment verbs, are ungrammatical as nominal infinitives if no other aspectual modifier occurs. With modifiers that force an unbounded process or an iterative process, the nominal infinitive is possible with the internal argument as genitive and with or without the external argument expressed by a *by*-phrase.

Thus the verbs that are most likely not to occur in the nominal infinitive are culmination or achievement verbs, because their bounded / telic nature is incompatible with the imperfectivity expressed by the nominal infinitive. But even these, if followed by an indefinite expression, may exceptionally appear as nominal infinitives, as in (73) and (74).

As for the mixed type, represented by our examples (38)-(53), containing the nominalization of a reduced clause, the meaning of activity or process is dominant; but again this value is given not only by the activity verbs (*gritar*, ‘to shout’, *falar*, ‘to speak’), but also by a bare noun as the internal argument (40, 41, 52), or by a connector such as *sempre que* (‘whenever’) (53), which reinforces the iterative meaning. So it is not only the lexical property of the verb but also other contextual factors that reinforce the activity meaning.

What is rather interesting is that some verbs that do not appear in the nominal infinitive are lexicalized in Portuguese, as in *o nascer do sol*, ‘the sunrise’, *o cair do dia*, ‘the end of the day’.²⁶ The fact that they are lexicalized infinitives and not syntactic nominal infinitives may be proved by the contrast between (84), which is acceptable, and (85), which is ungrammatical:

- (84) O nascer do sol foi uma bênção!
 the be bornINF of the sun was a blessing
 ‘the sunrise was a blessing’

²⁶ De Miguel (1996: 43) also notes for Spanish that “fossilized relics of an older grammar” such as *en un abrir y cerrar de ojos* are acceptable.

- (85)(=69) * O nascer da bebé foi uma bênção!
 the be bornINF of the baby was a blessing

Furthermore, the plural is possible in lexicalized infinitives (86), but not in the (syntactic) nominal infinitive (87):

- (86) Os nasceres do sol em África são belíssimos!²⁷
 thePL be bornINFpl of the sun in Africa are beautiful
 ‘Sunrises in Africa are beautiful’

- (87)* Os anunciares de uma nova era de cooperação
 the announceINFpl of a new era of cooperation
 ‘the announcement / announcing of a new era of cooperation’

It has been noticed that non-telicity of the nominal infinitive is related to the singular (Alexiadou *et al.* 2011). In fact, there is a correlation between telicity, plurality, and the countable feature, on the one hand, and non-telicity, singular and massive feature, on the other. What we expect is that lexicalized infinitives will have properties of countable nouns, contrary to the nominal infinitives, which still maintain certain verbal properties. Indeed in Portuguese, as in other Romance languages, there are many infinitives that are lexicalized as nouns and that may be pluralized:

- (88) *(o) jantar*, ‘the dinner’, *(o) pôr do sol*, ‘the sunset’, *(o) poder*, ‘the power’, *(o) dever*, ‘the duty’, *(o) parecer*, ‘the opinion’, *(o) recolher (obrigatório)*, ‘the curfew’, *(o) cessar fogo*, ‘the cease fire’, *(o) ser (vivo)*, ‘the human being’, *o olhar*, ‘the look’, and, in certain social variants, *o comer*, ‘the food’.

Varela (1979) *apud* Hernanz (1999), for Spanish, classifies these forms as «false infinitives», and assigns to them the category of nouns. In fact, these infinitives have no active verbal properties and have typical nominal properties: they denote entities, they may exhibit determination / quantification and genitive case assignment, they are countable and may have plural; sometimes, they have no productive relation with the homonymous verbs (Bosque 1990: 157).

In Silva Dias, E. (1970) and Cuesta & Mendes da Luz (1971/1980), we find some examples of this type that were lost over time or are not very productive, such as *dares e tomares com alguém*, in the sense of *conversas*, conversation, and *dizeres*, in the sense of *ditos*, sayings:

²⁷ In the sense of different episodes of the sunrise.

- (89) “(...) ter dares e tomares com alguém”
 (Silva Dias 1970: 217).

to have giveINFpl and takeINFpl with someone
 ‘to have a conversation with someone’

- (90) “Não se deve fazer caso dos dizeres da gente”
 (Cuesta & Mendes da Luz 1980: 529).

not se should pay attention to the sayINFpl of the people
 ‘You should not pay attention to what people say’

See also the example (91) from a novel by Olga Gonçalves *Ora Esguardae*, a novel strongly marked by the use of oral register:

- (91) “Eu via-o logo de manhã, os lidares eram os de gente
 I saw him early in the morning, the workPL were those of people
 muito mexida (...)”

very busy
 ‘I saw him early in the morning, the work was that done by very busy
 people’

To summarize: the nominal infinitive has no tense, unlike the nominalization of the infinitival clause, which expresses tense, not only in its reduced and non-inflected form, but also in its inflected form.

As for aspect, the dominant value of the nominal infinitive is process, which is why unaccusative verbs, generally culmination / telic verbs, are here forbidden in most cases. In the literature it has been stated that transitive verbs (normally accomplishment verbs) cannot also be used as nominal infinitives. However, we can see that the presence of some aspectual modifiers (not only adjectives that force a durative and unbounded process reading but also bare plurals and indefinites as internal arguments) may allow the occurrence of transitive verbs as nominal infinitives.

As for the nominalizations of infinitival clauses, not only in their reduced and non-inflected form but also in their inflected form, we can find all kinds of verbal predicate, because they denote facts and propositions.

The consequence of the semantic restriction on the nominal infinitive is that it does not pluralize. In contrast with the (syntactic) nominal infinitive, Portuguese, like other Romance languages, has developed many lexicalized infinitives, which, like normal countable nouns, may pluralize.²⁸

²⁸ In the model of Distributed Morphology we could say that these forms are included in the Encyclopedia.

4. Syntactic analysis

In the literature there have been many attempts to analyze the mixed properties of the different types of nominalization of the infinitive, in order to capture the fact that they combine both verbal and nominal properties. Borsley & Kornfilt (2000) proposed an interesting generalization that seems to be valid for many languages studied:

- (92) Mixed projections behave internally as verbal / clausal constituents and externally as nominals.

Although this generalization seems to be along the right lines, we have shown in the previous paragraphs that there are different ways of nominalizing an infinitive. Therefore, there must be a different distribution of nominal and verbal categories in the constructions.

In the model presented in Alexiadou (2001) and Alexiadou, Iordăchioia & Schäfer (2011), which I will adopt here, the nominal or the verbal nature of a matrix category depends on the nominal and verbal functional categories that dominate a root. In this framework, in the origin of a sentence, of a deverbal nominalization or of a nominalized infinitive there is an acategorial root that assumes the nature of V or the nature of N, according to the functional categories that dominate it.

I will start with the following verbal categories in the first verbal phase:²⁹

- (93) [VoiceP [vP [RootP/ VP / √P]]]

There are also two other verbal categories in a tensed domain, TenseP (TP) and AspectP (AspP), as in (94):

- (94) [TP [AspP [VoiceP [vP [RootP/ VP / √P]]]]]

As nominal categories, I will accept those that are indicated in (89).³⁰

- (95) [DetP [PossP [NumP [ClassP [nP]]]]]

The functional categories only project if necessary.

Within this framework, let us first analyze the nominal infinitive. Let us take the example (1), here repeated as (96).

²⁹ In this model, there is a distinction between lexical aspect or *Aktionsart*, given by the verbal roots and by the domain VoiceP-vP, and grammatical Aspect, where aspectual operators (auxiliaries, adverbs or certain features) are indicated.

³⁰ We are here assuming an analysis of the nominal functional categories that comes from Abney (1987), Giorgi & Longobardi (1991), Ritter (1991), Alexiadou (2004), among others.

(96) O gritar das pessoas surpreendeu-nos.

We have seen that the nominal infinitives express processes or activities, they always denote imperfectivity, they are singular and they contain no aspectual auxiliaries. According to Alexiadou *et al.* (2011: 32-33), when there are no aspectual operators there is no AspP and the inner aspectual information given by an atelic root is sufficient to give the aspectual values of the construction. It therefore seems that the projection of an outer AspP is not necessary, contrary to the proposal by de Miguel (1996:47), who assumes that in the nominal infinitive there is an Asp node that codifies a [-perfectivity] feature. How then do we take account of the semantic properties of this construction? According to the same authors, inspired by Borer (2005), the functional category “ClassP accommodates the inner aspect under a [+/-count] feature. Telic nominalizations, like count nouns, project Class [+count], which is the input for a further NumP; atelic nominals, like mass nouns, project Class [-count], which blocks NumP. While Number gives information about the form (i.e. plural / singular marking), the [+/-count] specification indicates the semantic ‘number’: [-count] means semantic plurality; [+count] means semantic singularity” (Alexiadou *et al.* 2011: 33). Exploring this hypothesis, Iordăchioaia & Soare (2007) and Alexiadou *et al.* (2011) consider that the syntax of the nominal infinitive in Spanish³¹ does not justify either the node AspP or the node NumP, because such constructions are always singular, due to the atelic nature of their roots. They therefore propose for these constructions a node ClassP [-count], that dominates nP.³²

We have seen that transitive verbs, modified by some aspectual adjectives that force an unbounded meaning, may form a nominal infinitive in Portuguese. So if we accept that a [-count] ClassP is sufficient for the description of process and imperfectivity in nominal infinitives, we must propose that some adjectives may be projected in an adjunction position to ClassP.

According to this approach, the root with its inner aspect information moves to a functional category n, which dominates the affix *-r*; this position n being the same position in which deverbal suffix nominalizations are projected. In this way we capture the “derivational” nature of this morpheme *-r*, thus approaching de Miguel’s proposal (1996: 44-45).

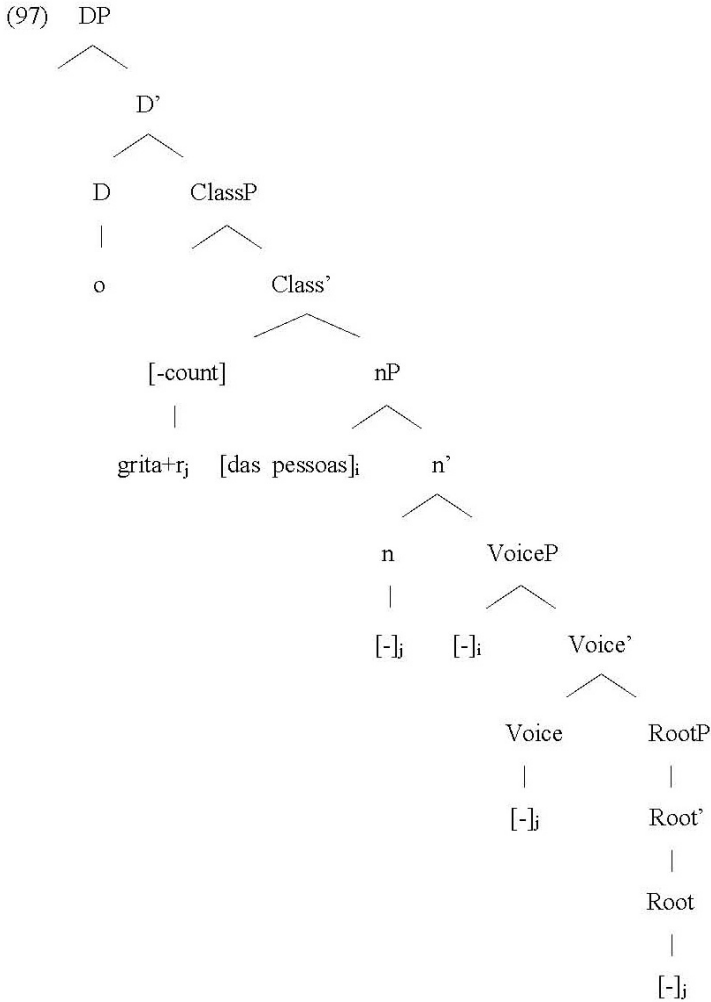
Let us remember that, according to the nature of the root, in the nominal infinitive not only does an external argument of a transitive / alternation verb (as in *o gritar das pessoas*) appear with *de*, but also an internal argument (as

³¹ And one type of infinitive in Romanian.

³² See also Sleeman (2010).

in *o contínuo fechar das portas...*, *o inventar do imaginário português...*); hence, both DPs move to Spec of nP in order to check their genitive case.³³

With all this in mind I propose in (97) the structure of an example like (96):



³³ Building on Alexiadou (2001), we could claim that in the nominal infinitive there is a vP and that this category is deficient w. r. t. to accusative case assignment; the alternative, which I adopt here, is to say that there is no vP. Also Iordăchioaia & Soare (2007) and (2008) suggest that the Spanish nominal infinitive may be described by a very simple structure, as described in (i), followed by the movement of the verb root to n:

(i) [_{DP} e_l [_{ClassP} [_{NP} -r [_{VP} construi-]]]]

Let us now analyze the nominalization of a full infinitival clause, exemplified in (2) and here repeated as (98):

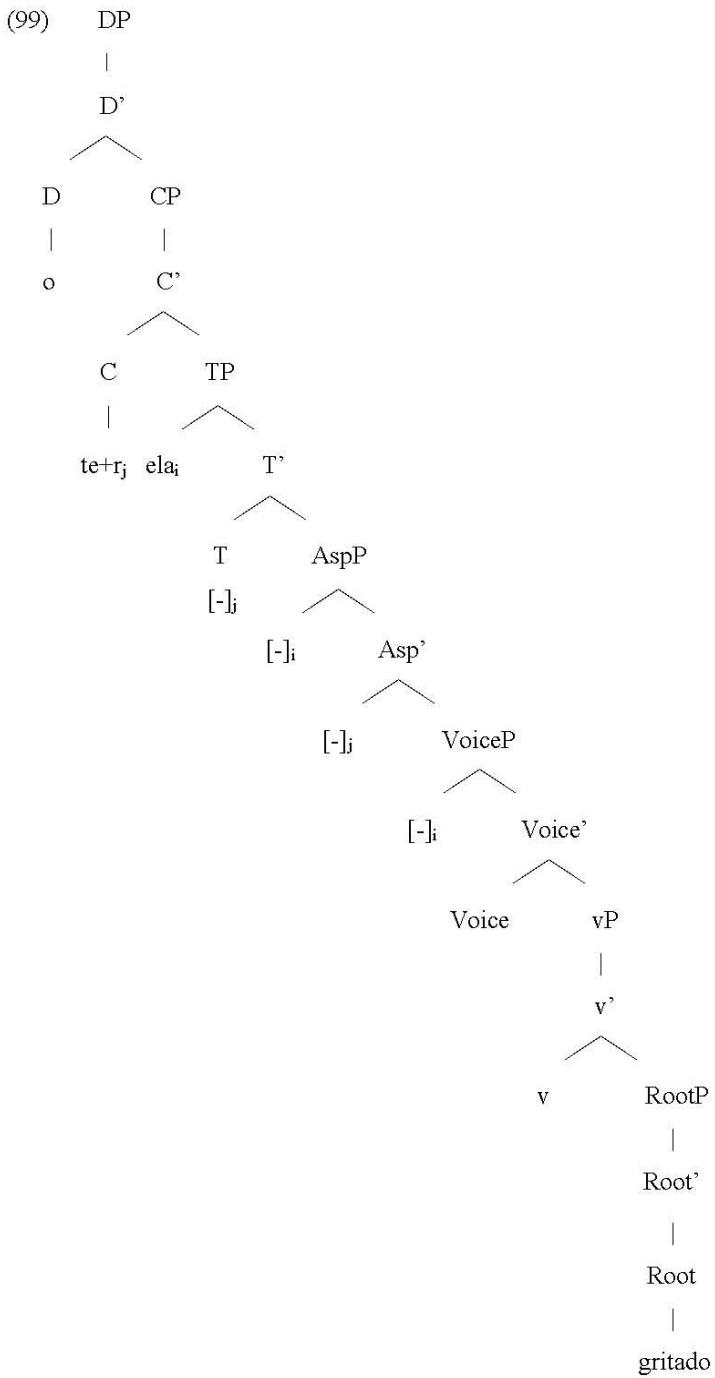
(98) O ter ela gritado surpreendeu-nos.

I propose that the nominalization of an infinitival clause such as (98) is the nominalization of CP, C being the position on the left periphery to where the verb / auxiliary moves, which explains the order V S and, above all, the inflected infinitive,³⁴ thus differing in this respect from Alexiadou *et al.* (2011), who propose that the corresponding Spanish construction is the nominalization of TP. My analysis is thus closer to Raposo (1987), Duarte (2003) and Duarte *et al.* (2005) on the inflected infinitive in Portuguese and to Plann (1981), Vázquez (2002), Ramírez (2003) on the equivalent construction in Spanish and Italian.³⁵

It is to be noted that this *-r* is considered “inflectional” by de Miguel (1996: 44-45). In the framework of Alexiadou *et al.* (2011), I capture this nature, proposing that this *-r* morpheme is projected in Asp, the functional category that codifies the outer aspect. Either there are tense / aspect auxiliaries, as in (98), or there is a simple V; in both cases, the aux / verb+*r* moves to T and C, expressing temporal information. A nP projection would be here inadequate, because there is no genitive case assignment and there are no adjectives, only adverbs, which may be adjuncts to AspP or some other verbal functional projection. It must also be emphasized that, as we have a clause here, vP is justified, expressing event and (in)transitivity and being the locus for accusative case checking, if there is an internal argument (Cf. Alexiadou 2001).

³⁴ Ambar (1998) and Raposo & Uriagereka (1996) present some objections to the classical analysis by Raposo (1987) of the Inflected Infinitive, which crucially involves Aux/V movement to C in order that Agr, incorporated in Aux / V, can locally govern Agr in the subordinated clause and license nominative case assignment. The objections are the following: (i) the Aux / V may not be the element that licenses nominative case assignment to the subject of the infinitival clause; (ii) the high position may not be C because some adverbs may occur on the left of the subject, as in *Penso só eles terem passado o exame*. (I think only they haveAUX passed the examination). Raposo & Uriagereka (1996) thus propose that this category on the left periphery may be FP, a functional category which may include “affective” constituents.

³⁵ Of course, according to the split analysis of the left periphery by Rizzi (1997), a nominalized CP may be converted into several functional categories; what is important to note is that the structure must contain the value [+ declarative force], [- finite], dominating TP.



Finally, let us analyze the mixed type, which we have characterized as the nominalization of a reduced clause. As we have seen before, there are examples with an arbitrary reading, such as (38, 40), and there are specific examples, such as (39, 41, 49, 51, 52). Let us take (40) and (41):

- (40) O beber continuamente cerveja faz mal à saúde.
 the drinkINF continuously beer is bad for the health
 ‘the fact that one continuously drinks beer is bad for one’s health’
- (41) Esse teu escrever poemas é uma coisa linda!
 that your writeINF poems is a thing beautiful
 ‘the fact that you write poems is a beautiful thing’

We have seen that in both variants this type of nominalization of the infinitive has mixed features, with nominal and verbal properties. The possibility of negation (49), the possibility of an aspectual adverb (50, 52) and the fact that it may contain an argument reflexive clitic (53) seem to justify the presence of AspP and TP, respectively.³⁶ But this type of nominalization of the infinitive may also include an adjective (51), as an adjunct to a nominal functional projection that seems to be ClassP.

In (40) the presence of an arbitrary PRO as subject of TP is justified. In (41) a possessive controls a PRO in TP (Ramírez 2003: 126).³⁷ In both circumstances there is no genitive case expressed in the form of a *de*-phrase and so no nP projection seems necessary.

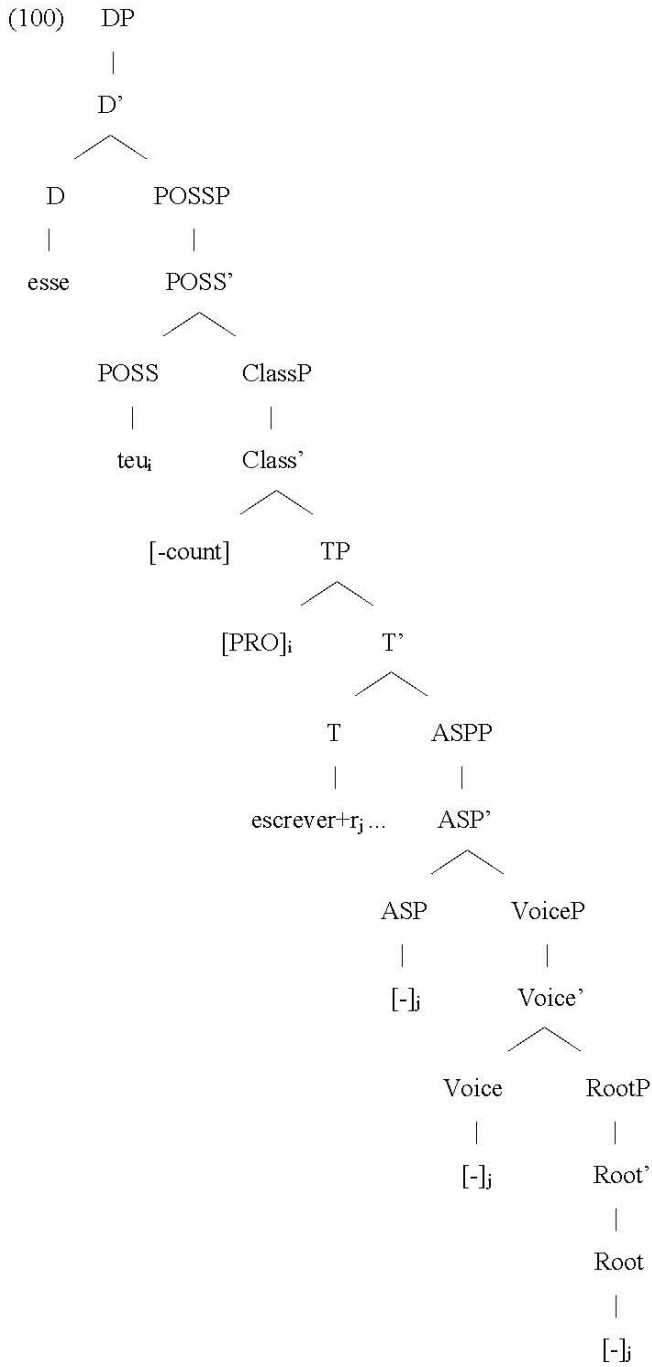
As for the “inflectional” morpheme *-r*, it is also projected at the head of AspP and moves to T.

The structure in (100) represents the relevant part of the example (41), with a controlled PRO.³⁸

³⁶ Ramírez (2003) calls them “AGR infinitives”, where a DP dominates AgrP and VP, but since there is no agreement, I see no reason to introduce this functional category.

³⁷ Alexiadou (p.c.) suggested to me that the pre-nominal possessive, if it is a weak form (as argued for Italian by Cardinaletti 1998), could be raised from the SU position inside TP. However, it is not obvious that in European Portuguese the pre-nominal possessive is weak (cf. Brito 2007). I therefore propose that we have a (classic) control relation and not a raising one.

³⁸ According to Bosque (1990), *poemas*, ‘poems’, should be incorporated in V in T.



5. Conclusions

In Portuguese, as in Spanish and Italian, there are distinct forms of nominalization of an infinitive:

1 - A nominal infinitive, which has more nominal than verbal properties: it denotes an event (not a proposition), meaning a process or an activity, which is why culmination and transitive verbs are here forbidden in most cases. We could see, however, that the presence of some aspectual modifiers (not only adjectives but also bare plurals and indefinites as internal arguments) that force a durative and unbounded process reading may allow the occurrence of these verbs. This semantic restriction is related to the fact that the nominal infinitive does not pluralize. In contrast to the nominal infinitive, Portuguese has developed many lexicalized infinitives that behave like countable nouns and thus easily pluralize. In the nominal infinitive a root is dominated, among others, by DetP and nP, without TP.

2 - A nominalization of a full infinitival clause, with a subject (null or expressed), with inflection in the verbal form and with the possibility of containing aspect / tense auxiliaries and negation: since it denotes a proposition, there is no restriction on the lexical nature of the verb predicate; what is crucial is the nature of the matrix predicate that selects such a clause. We have analyzed it as a nominalization of CP, where in most cases there is a fronted auxiliary / verb in C, dominating TP.

3 - A mixed type, with nominal and verbal properties: it may contain an adjective, behaving like the nominal infinitive. But it has properties of a tensed domain; this was why I analyzed it as the nominalization of a reduced clause, a TP and not CP, because there is neither a fronted auxiliary nor an inflected infinitive. This nominalization of TP may have two variants, one with an arbitrary PRO and another (one) with a PRO controlled by a possessive. The dominating meaning of activity is more related to contextual factors than to the lexical nature of the verb.

The analysis has allowed us to confirm that the infinitive marker is not a uniform element: in the nominal infinitive, *-r* is projected at a nominal head, the same position occupied by other deverbal nominalization suffixes; it has no temporal value but is able to express aspect, mainly process and imperfectivity; in the nominalization of a clause *-r* is projected at the head of AspP and moves to Tense or to C.

The analysis of the three constructions was undertaken mainly in line with the framework developed by Alexiadou (2001) and Alexiadou, Iordăchioaia & Schäfer (2011), according to whom the varied distribution of nominal and verbal layers in the three types of nominalization of the infinitive here considered explains the gradual nominal and verbal properties that they exhibit.

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