

# The Morphological and Syntactic Status of the Analytic and Synthetic Future in Medieval Catalan\*

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## Abstract

The goal of this paper is to investigate the morphological and syntactic properties of the synthetic and analytic future in medieval Catalan. The main claim is that the two future forms are independent structures. Despite their shared historical origin, they are not synchronically derived from a common syntactic structure. Both forms are words and, while the synthetic future is a word form consisting of a stem and inflectional affixes, like other verb forms, the analytic future is a compound consisting of an infinitive, a clitic cluster, and a bound auxiliary. The presence of so-called clitics in the analytic future is consistent with the claim that the analytic future is a word, if we assume the affixal status of clitics in medieval Catalan, an assumption that is supported by abundant evidence. The analysis of the analytic future as a compound shows that compounding, though generally found in lexeme-formation, is a morphological device that can be used to derive word forms in an inflectional paradigm.

**Keywords:** Old Catalan; historical syntax and morphology; synthetic future; analytic future; clitics as affixes; analytic future as a compound

**Resum.** *L'estatus morfològic i sintàctic del futur analític i del sintètic en català medieval*

L'objectiu d'aquest treball és d'investigar les propietats morfològiques i sintàctiques dels futurs sintètic i analític en català medieval. La proposta principal és que les dues formes de futur són estructures independents. Si bé el seu origen històric és compartit, no deriven d'una estructura sintàctica comuna des del punt de vista sincrònic. Cadascuna d'aquestes formes és una paraula i, mentre que el futur sintètic és una forma de paraula formada per un radical i afixos de flexió, com altres formes verbals, el futur analític és un compost que consta d'un infinitiu, un grup de clítics i un auxiliar lligat. La presència dels anomenats clítics en el futur analític és compatible amb la proposta que el futur analític és una paraula, si adoptem la idea que els clítics són afixos en català medieval, una idea que es recolza en un nombre important de proves. L'anàlisi del

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futur analític com a compost implica que la composició, per bé que generalment es dona en la formació de lexemes, és un procés morfològic que es pot emprar per derivar formes d'un paradigma flexiu.

**Paraules clau:** català antic; sintaxi i morfologia històrica; futur sintètic; futur analític; clítics com a sufixos; futur analític com a compost

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## 1. Introduction

This paper explores the morphological and syntactic status of the two forms of the future tense – the SYNTHETIC and the ANALYTIC FUTURE – in medieval Catalan, with special focus on the analytic future. The properties of these two forms indicate that the best way to analyze them in the synchronic grammar of Old Catalan is to assume that both are words, not phrases. Furthermore, they are distinguished because the synthetic future is a word consisting of a stem and inflectional affixes, like other tensed verb forms, whereas the analytic future is a compound consisting of an infinitive, a clitic cluster, and a bound auxiliary.<sup>1</sup> The idea that the analytic future is a word, the minimal unit of syntax, may seem surprising given that it contains one or more clitics. However, that idea is consistent with the claim that so-called clitics in Romance languages are affixes, as assumed in Miller (1992); Miller & Sag (1997) and subsequent work (see § 3.1).

Section 2 considers the existing hypothesis that the two future forms are in fact the same structure – a syntactic structure consisting of an infinitive and an auxiliary, with the possibility of clitics appearing between the two – and provides evidence against that idea. The current proposal is presented in Section 3, together with evidence for the affixal status of clitics in medieval Catalan: the evidence from Section 2 finds a natural explanation within this proposal. Section 4 concludes arguing that compounding, although generally considered to be involved in lexeme-formation, can be a process used in inflectional morphology.

1. In this paper, the term *clitic* is used in a purely descriptive sense to refer to the class of elements, such as *me*, *te*, *lo*, *ne*, *ho*, etc., that appear immediately after or immediately before verbs in medieval Catalan, without implying that they are syntactically independent of the verb form they are adjacent to.

## 2. Evidence against the single future hypothesis

### 2.1. The single future hypothesis

In medieval Catalan, as in medieval Spanish, Galaico-Portuguese, and Occitan, and in present day Portuguese, we find two forms of the future tense: the so-called synthetic future and analytic future, illustrated in (1a) and (1b) respectively, with the relevant forms in bold:<sup>2</sup>

- (1) a. *e* **menarem** *de bons giadors.*  
and lead.FUT.1PL of good guides  
'and we will send good guides.' (Desclot, *Crònica*: II.85.6)
- b. *e* **nós menar -la** **èm** *a nostre seyor, l'enfant* *En*  
and we lead.INF -3SG.F.ACC will.1PL to our lord, the.prince ART  
*Pere.*  
Pere  
'and we will lead her to our lord Prince Pere.' (Desclot, *Crònica*: II.160.21)

Both types of future tense forms have the same historical origin: the Latin sequence of an infinitive and a form of *habeo*, henceforth INF+*habeo*.<sup>3</sup> In this structure, *habeo* could adopt a present indicative form or an imperfect indicative form: in the former case, the structure yielded the future proper (e.g. *menaré* 'I will lead', *menaràs* 'you will lead', *menarà* 'he/she will lead', etc.) and, in the latter case, it produced the conditional tense (e.g. *menaria* 'I/he/she would lead', *menaries* 'you would lead', etc.).<sup>4</sup> Here I use the term FUTURE to refer to both the future tense and the conditional and resort to the term FUTURE PROPER to refer to the future tense, as opposed to the conditional. The reason for this terminological conflation is that both tenses behave alike with respect to the phenomena considered in this paper.

The two types of future forms are distinguished because the analytic form includes a sequence of one or more clitics immediately following the descendant of the Latin infinitive, whereas the synthetic form does not: for example, the analytic form *menar-la em* in (1b) includes the clitic *la*, whereas the synthetic form *menarem* in (1a) includes no clitic. As in other medieval Romance languages, Old Catalan allowed clitics to appear either preverbally or postverbally, depending on the syntactic context (Fischer 2002; Batllori, Iglesias & Martins 2005). In some syntactic contexts, clitics could only appear in preverbal position: the particle *no*

2. Unless otherwise indicated, all examples are taken from CICA (Corpus Informatitzat del Català Antic, supervised by Joan Torruella, Manuel Perez Saldanya and Josep Martines) [<http://cica.cat/>]. Examples are identified by the citation form of the work, followed by a colon, the volume number, if any, the page or document number, and the line number, separated by dots, except where noted. Glossing follows the Leipzig Glossing Rules, with the following differences: PST for imperfect past and PSTP for perfect past.
3. See Valesio (1968) for the history and chronology of the Romance future pattern.
4. In Italian, unlike other Romance languages with INF+*habeo*, the conditional originates in the sequence of the infinitive with the forms of the perfect indicative of *habeo* (*habui*, *habuisti*, *habuit*, etc.).

of clausal negation was one of the proclitic triggers. In such contexts, only the synthetic future was possible (see example (7a), among others). In other contexts, such as sentence initial position, clitics could only appear postverbally, and yet in other contexts, an apparent freedom of position is observed for clitics. In contexts that allow or require enclisis, we find synthetic futures with postverbal clitics, as well as analytic futures (see example (4)). As shown in Bouzouita (2016); Bouzouita & Sentí (in press; this volume), the syntactic contexts that allow analytic future forms are those in which postverbal clitics are possible.

One might be tempted to analyze both types of future forms as having the same structure in Old Catalan. If they can both be analyzed as different realizations of a common structure, we achieve a simplification of the grammar: there would not be two future forms, but a single structure, which allows for alternative realizations. Positing a syntactic structure consisting of an infinitive, an optional clitic cluster, and the finite auxiliary *é/às/a...*, for the future proper, and *ia/ies...*, for the conditional (schematically, INF+(cl.cl.)+*é/ia*), the synthetic form is the realization of this structure when it contains no clitic cluster and the analytic form is the realization of the structure when it contains a clitic cluster.

The idea that the two types of future are alternative manifestations of the same syntactic structure – the single future hypothesis – has been argued for and assumed by various authors. This assumption, implicit in Meyer-Lübke (1890-1906: § 319), leads the author to assert that the existence of the analytic future in Old Spanish and in Portuguese “suffirait à montrer que dans ces langues *cantarà* ne constitue pas encore une unité”, i.e. it is evidence by itself that in these languages *cantarà* does not yet constitute a unit. See also Meyer-Lübke (1890-1906: § 737). Among generative linguists working on Old Spanish there is also widespread acceptance of the idea that the two types of future are the same form: they have a complex syntactic structure, which is essentially the same in both cases (e.g. Lema & Rivero 1991; Lema 1994: 141, 151; Rivero 1994: 121; or Bouzouita 2011) and, therefore, an analytic future does not constitute a word (Rivero 1994: 131). Despite the appeal of the single future hypothesis, there are important arguments against it, which we will consider presently.

## 2.2. Phonological conditioning of the analytic future

All verbs have a synthetic future, but not all have an analytic future. A significant generalization that can be observed is that the availability of the analytic future is dependent on a phonological property of INF in the structure INF+cl.cl.+*é/ia*: it must end in a consonant. Infinitives in Catalan can either end in the consonant *-r*, as in *menar* ‘lead’, *anar* ‘go’, *fer* ‘do’, etc., or can end in the vowel *-e*, as in *respondre* ‘reply’, *pendre* ‘take’, *coure* ‘cook’, etc. Vowel-final infinitives are systematically excluded from the analytic future: an exhaustive search of CICA reveals that there are no analytic future forms whose INF ends in a vowel. Telling evidence for this restriction is found in verbs with two alternative forms of the infinitive: one ending in *-r* and one ending in *-e*, such as *plaer/plaure* ‘please’ and *assaer/asseure* ‘seat/settle’. Only the former, consonant-final, form is found in the analytic future. In the

first half of the 14<sup>th</sup> century *plaer* and *plaire* coexisted as infinitives, but the attested uses of the analytic future of this verb only contain the form *plaer*, as in (2):<sup>5</sup>

- (2) a. *e plaer -nos hia molt que ·ls vissem*  
 and please.INF -1PL would much that 3PL.M.ACC see.PST.SBJV.1PL  
 ‘and it would please us very much to see them’ (Jaume I, *Fets*: 14r.14)
- b. *e plaer -vos ha*  
 and please.INF -2PL will  
 ‘and it will please you’ (Jaume I, *Fets*: 27v.16)

A similar observation can be made regarding *assaer/asseure*: both forms were used as infinitives in the first half of the 14<sup>th</sup> century, as in (3a-b), but only *assaer* (an alternative spelling to *asseer*) appears in the analytic future, as in (3c):

- (3) a. *per tal que assignéssem nostra albergada així con se devia*  
 so that settle.PST.SBJV.1PL our camp just as se should  
***assaer***.  
 settle.INF  
 ‘in order for us to settle our camp as it should be settled’  
 (Jaume I, *Fets*: 166v.13)
- b. *faýem -los aseure e faýem -los cobrir*  
 make.PST.1PL -3PL.M sit.INF and make.PST.1PL -3PL.M cover.INF  
 ‘we made them sit down and we had them covered’  
 (Jaume I, *Fets*: 78v.15)
- c. *e assaer -vos ém en una taula e avalar -vos ém*  
 and sit.INF -2PL will.1PL on a table and lower.INF -2PL will.1PL  
 ‘and we will sit you on a table and we will lower you’  
 (Jaume I, *Fets*: 13r.2)

The following text provides strong support for the generalization just noted. It contains a large number of future forms, both synthetic and analytic, but the analytic future forms never include an INF ending in a vowel: with such INFs the synthetic future is used with a postverbal clitic.<sup>6</sup>

- (4) *E a cap de ·II· o ·III· jorns **pendràs-ho** tot, so és, los présechs e lo axerop, e **ferr-o-as** bolir ·II· o ·III· buyls. E après, fet asò, si no és prou estret lo axerop, **treurets-lo** del pot – lo dit axerop – e **fer-l’as** bolir fins tant sia fet que fassa fills [...] E aureu perellat vostron axerop demunt dit e **lensar-lo-li-ets** desús*

5. In later periods, only *plaire* is found as an infinitive, although *plaer* is retained as a noun meaning ‘pleasure’. In all periods, the synthetic future of *plaire* contains the “syncopated” INF *plaur-*: *plauré*, *plauràs*, *plaurà*, etc.
6. I thank Manuel Pérez Saldanya and Josep Martines for bringing to my attention this text, not included in CICA. All analytic futures and all synthetic futures with postverbal clitics are in bold.

*tèbeu, car les pomes no fan a bolir. E a cap de ·VIII· jorns **couràs-ho** tot ensemps fins que lo axerob fassa fills, axí com dit és [...] [P]endreu les perres e **perrar-les-heu**; e, com sien perrades, fan a bolir ab lo axerop detràs dit ·II· o ·III· buylls. E après, de ·VIII· en ·VIII· jorns, **regonexerets-les** e **traureu-ne** lo axerop e **donar-li-eu** un perrells de buylls; e, com serà tèbeu, **tornar-li-eu** lensar desús.*

‘After two or three days you will take it all, that is, the peaches and the syrup, and you will make it boil two or three times. Afterwards, having done this, if the syrup is not thick enough, you will take it out of the pot – this syrup – and you will make it boil until it reaches the point that it makes threads [...] You will have cooked your aforementioned syrup and you will throw it on top of it lukewarm, as the apples should not be boiled. And after eight days you will cook it all together until the syrup makes threads, as said above [...] You will take the pears and you will peel them; and, when they are peeled, they are to boil with said syrup two or three times. And afterwards, at intervals of eight days, you will check on them, you will remove the syrup and you will boil it a couple of times; and, when it is lukewarm, you will throw it on top again.’

(Sent Soví: 281)

This text seems to comply with a stricter generalization than the one just noted: analytic futures must contain an INF with stress on the final syllable. All stress-final infinitives in Catalan end in *-r* and all vowel-final infinitives are stressed on the penultimate syllable, but there are a few infinitives ending in *-r* that are stressed on the penultimate syllable. Examples of the latter class include: *créixer* ‘grow’, *plànyer* ‘pity’, *témer* ‘fear’, and *córrer* ‘run’. Analytic futures containing infinitives of this class are extremely rare in the corpus of medieval Catalan texts, but they cannot be said to be non-existent: as shown by forms such as *acórrer-vos àn* ‘they will assist you’, to be presented in (9). Nevertheless, in many texts, these infinitives seem to behave like vowel-final infinitives in being excluded from analytic futures. This is the situation with the text in (4), where analytic and synthetic future forms alternate without there being any discernible syntactic, semantic or pragmatic factor affecting the choice of form.<sup>7</sup> However, it is clear that analytic futures are not used when their INF has stress on the penultimate syllable.

In this text, future forms that carry clitics attached (either in the analytic form or following the synthetic form) are synthetic forms if the corresponding infinitives are those in (5a), with stress not on the final syllable, and analytic forms if the corresponding infinitives are those in (5b), stressed on the last syllable:

7. Nevertheless, Company Company (2006: 404–410) suggests that in medieval Spanish the analytic future is conditioned by semantic and pragmatic factors, in addition to formal ones (see also Company Company 1985; Company Company & Medina 1999). If this were the case, it would constitute an additional argument against the single future hypothesis. But there is insufficient evidence to make this case, not only for medieval Catalan, but also for medieval Spanish, as argued by several authors, including Castillo (2002) and Bouzouita (2011).

- (5) a. *pendre* ‘take’, *treure/traure* ‘remove’ (see also § 2.3), *coure* ‘cook’, *regonèixer* ‘recognize’  
 b. *fer* ‘do’, *lensar* ‘throw’ (alternative spelling to *llançar*), *perrar* ‘peal’ (alternative spelling to *parar*), *donar* ‘give’, *tornar* ‘repeat’

Clearly, the choice between the synthetic and the analytic future is conditioned by a phonological property, stricter in the text in (4) than in other Catalan texts: the INF in the analytic future must be stressed on the final syllable.<sup>8</sup> This is a problem for the single future hypothesis, given that a syntactic operation would be blocked by a phonological property, which is ruled out by the Principle of Phonology-free Syntax, a proposed universal principle of grammar that prohibits reference to phonological information in syntactic rules or constraints (Zwicky 1969; Zwicky & Pullum 1986; Miller, Pullum & Zwicky 1997).

### 2.3. Lexical gaps in the analytic forms

Some verbs lack an analytic future and this gap cannot be attributed to the phonological condition just noted or to any other plausible generalization. Examples of such verbs include *poder* ‘can, be able’, *voler* ‘want’, (*h*)*aver* ‘have’ (both as auxiliary and as verb of possession), *ésser/ser* ‘be’ (both as auxiliary and as copula), *veer/veure* ‘see’, *trer/traure* ‘remove’. Some attested forms of their synthetic futures are given in (6): the 1<sup>st</sup> and 2<sup>nd</sup> person singular of the future proper and the 1<sup>st</sup> or 3<sup>rd</sup> person singular of the conditional.

| (6) Infinitive                  | Synthetic future forms          |
|---------------------------------|---------------------------------|
| <i>poder</i> ‘can’, ‘be able’   | <i>poré, poràs, poria</i>       |
| <i>voler</i> ‘want’             | <i>volré, volràs, volria</i>    |
| ( <i>h</i> ) <i>aver</i> ‘have’ | <i>hauré, hauràs, hauria</i>    |
| <i>ésser/ser</i> ‘be’           | <i>seré, seràs, seria</i>       |
| <i>veer/veure</i> ‘see’         | <i>veuré, veuràs, veuria</i>    |
| <i>trer/traure</i> ‘remove’     | <i>trauré, trauràs, trauria</i> |

The expected, but unattested, forms of the analytic future of these verbs, using the neuter 3<sup>rd</sup> person clitic *ho* and the 1<sup>st</sup> singular form of the auxiliary for the future proper, would be the following: for *poder*, \**por-ho-he* or \**poder-ho-he* (using

8. For Spanish, Matute & Pato (2010) and Bouzouita (2016) propose that verbs whose synthetic future forms are syncopated (i.e. lack a thematic vowel right before the INF’s final *r*) have a lower frequency of use of the analytic future. Despite the similarities with the claim made in this paper, this proposal cannot be generalized to account for Catalan for the following reasons: (a) the analytic future is not attested at all (not merely attested in lower numbers) when its INF is syncopated and ends in a vowel in Catalan; (b) there are verbs whose synthetic future is syncopated and yet have an analytic future, as shown in (2)–(3); and (c), for the variety of Catalan in (4), there are verbs whose infinitive and synthetic future are not syncopated, such as *regonèixer*, and yet lack an analytic future.

either the sequence *por*, which appears in the synthetic future, or the form *poder*, corresponding to the infinitive); for *voler*, \**voler-ho-he*; for (*h*)*aver*, \*(*h*)*aver-ho-he*; for *ésser/ser*, \**ser-ho-he* or \**ésser-ho-he* (using either form of the infinitive); for *veer/veure*, \**veer-ho-he*; and for *trer/traure*, \**trer-ho-he*. Forms such as \**volre-ho-he*, \**veure-ho-he* or \**traure-ho-he* would be independently excluded by the phonological restriction noted in the previous subsection.

The high frequency use of these verbs precludes an explanation of the absence of the analytic future in terms of accidental gaps in the corpus. For example, there are 1976 occurrences of the synthetic future of *voler* (forms beginning with *volr-* or *volrr-*, not counting other spellings) in the CICA corpus. For the single future hypothesis the absence of any analytic form for the verbs listed in (6), given the high numbers of attested future forms, is completely unexpected. There is no plausible explanation for this gap.<sup>9</sup> If the verbs in (6) were verbs that failed to co-occur with clitics, this would provide an explanation for the absence of analytic futures. But that is not the case: all of these verbs can take clitics and even the synthetic future forms co-occur with clitics, both preverbal and postverbal. For example, the synthetic future of *trer/traure* occurs with preverbal and postverbal clitics, as in (7a-b); and the infinitive of this verb can be followed by a clitic, as in (7c):<sup>10</sup>

- (7) a. *que no la traurà de la ciutat*  
 that not 3SG.F.ACC remove.FUT.3SG from the city  
 ‘that he will not take it out of the city’ (Costums: 341.7)
- b. *trauran -los d’ aquí*  
 remove.FUT.3PL -3PL.M from here  
 ‘they will remove them from here’ (Jaume I, Furs: 146.24.2)
- c. *Mas él no ach pas volentat de trer -la*  
 But he not have.PSTP.3SG at all will of remove.INF -3SG.F.ACC  
 ‘but he did not have at all the will to remove her’ (Questa: 100vb.4)

The complete absence of analytic futures of verbs like *trer/traure* and those in (6) is unexplained under the single future hypothesis.

9. If we state the hypothesis outlined in footnote 8 as “verbs whose synthetic future is syncopated (i.e. lacks a thematic vowel before the INF’s *r*) do not have an analytic form”, it would account for some of the gaps noted, but it would have an important number of counterexamples. In addition to the forms in (2) and (3), given the syncopated synthetic futures *plauré*, etc. and *asseuré*, etc., counterexamples would include *saber* ‘know’, *fer* ‘do’, and *dir* ‘say’, which have analytic futures containing a form identical to the infinitive: for *saber*, *saber-n’an* ‘know.INF -NE will.1SG’ (Vides 129: 6); for *fer*, see (8c); for *dir*, *dir-vos-é* ‘say.INF -2PL will.1SG’ (Vides 213: 13). The synthetic future of these verbs has a syncopated INF: *sabré*, etc., *faré*, etc., *diré*, etc. Besides being an empirically inadequate principle, it raises the question why the existence of the analytic form should depend on the phonological properties of the synthetic form.
10. The older form of the infinitive of *trer/traure* is *trer*. The form *traure* is first attested in the second half of the 13<sup>th</sup> century and takes over as the only form, along with the variant *treure*, in the 15<sup>th</sup> century.



#### 2.4. Morphological asymmetries between the two types of futures

Whereas the analytic future always contains an initial sequence that is identical to the infinitive, the synthetic future does not. Some synthetic futures contain a historical descendant of the infinitive that does not coincide with the actual infinitive because of the loss of the thematic vowel in the future form and other phonological changes. For example, alongside the infinitive *venir* ‘come’, the synthetic future lacks the vowel *i* (as in *venré* ‘I will come’), has a variant with an added *d* (as in *vendré*), and, in later stages, has a form in which the root vowel changes to *i* (as in *vindré*).

Other examples of verbs whose synthetic future has an initial sequence that does not coincide with its infinitive are those shown in (6): e.g. *poder* vs. *poré*, *haver* vs. *hauré*, etc. An attempt to derive the synthetic future from the infinitive followed by an auxiliary would require positing a set of phonological rules restricted to these forms or even to just one verb. For example, the *d* deletion rule required to derive *poré* from *poder* would be exclusive to this verb.

While the synthetic futures of *fer* ‘do, make’ and *anar* ‘go’ contain the sequences *far-* and *ir-* respectively (e.g., *faré*, *faria*, *irem*, *iran*, etc.), the analytic futures contain the forms *fer* and *anar*, respectively, which coincide with the corresponding infinitives. A form of the synthetic future of *anar* is shown in (8a), with postverbal clitics attached to it, and an analytic future of the same verb is provided in (8b). Two instances of the analytic future of *fer* (in the 1<sup>st</sup> SG of the future proper) and a synthetic future form of this verb are given in (8c).

- (8) a. *dixem als cavallers que iríem -nos -en*  
 say.PSTP.1PL to.the knights that go.COND.1PL -1PL -EN  
 ‘we told the knights that we would leave’ (Jaume I, *Fets*: 101V.8)
- b. *E d’ aquí anar -me ·n hé a Tortosa*  
 and of here go.INF -1SG ·EN will.1SG to Tortosa  
 ‘And from here I will go to Tortosa’ (Jaume I, *Fets*: 97R.19)
- c. [...] *en Cathalunya e fer -hi e i\_a cort e*  
 in Catalonia and do.INF HI will.1SG one parliament and  
*fer -n’ é altra en Aragó. E en aqueles corts que*  
 do.INF EN will.1SG other in Aragon. And in those parliaments that  
*jo faré [...]*  
 I do.FUT.1SG  
 ‘[I will enter] Catalonia and will hold a parliament meeting and will hold another one in Aragon. And in those parliament meetings that I will hold [...] (Jaume I, *Fets*: 151V.10)

If both types of future – synthetic and analytic – had the same syntactic structure, INF+(cl.cl.)+*é/ia*, the grammar of Old Catalan would need a set of phonological rules just for deriving the future forms. In addition, these rules would have to be sensitive to the presence or absence of clitics following INF, given that the rules would only apply if there were no clitics. Elsewhere, infinitives do not vary in form depending on whether they are followed by clitics or not. Furthermore, there is a

choice of form in cases like *fer* and *anar* conditioned by the presence or absence of clitics following INF, as we see in the analytic *anar-nos n'ém* vs. the synthetic *ens n'irem* or *irem-nos-en*.

### 2.5. Two positions for the postverbal attachment of clitics

If the two types of future are the same structure (INF+(cl.cl.)+*é/ia*), we need to explain why in contexts in which clitics are attached postverbally, there is an option of placing the clitic cluster either immediately after INF or immediately after the tensed auxiliary. In (8a), the form *iriem-nos-en* has the clitic cluster following the tensed auxiliary, whereas in (8b) *anar-me-n hé* has the clitic cluster just after INF. Likewise, in (9), we see the same contrast between the synthetic future *sabran-ho* and the analytic *acórrer-vos an*.

- (9) *aquí sabran -ho les viles, e acórrer -vos àn totes*  
 here know.FUT.3PL -ho the towns and assist.INF -2PL will.FUT.3PL all  
 'there the towns will know and they will all assist you.' (Jaume I, *Fets*: 17R.18)

The future structure would be the only construction in which the postverbal attachment of clitics is not required to occur on the first verb form that can host a clitic, but can be postponed until the next form. (10) and (11) illustrate the fact that, in all other constructions where an infinitive is followed by a tensed verb, clitics must occur immediately after the infinitive.

- (10) a. *tot hom qui entrar -hi volgués.*  
 every man who enter.INF -HI want.PST.SBJV.3SG  
 'every one who wanted to go in.' (Descloit, *Crònica*: II.155.16)
- b. \* *tot hom qui entrar volgués-hi.*
- (11) a. *o altres moltes raons que dir s' í poden,*  
 or other many reasons that say.INF SE HI can.3PL  
 'or many other reasons that can be said to this' (Costums: 35.8)
- b. \* *o altres moltes raons que dir poden-s' í,*

Examples (10b) and (11b) show the alternative position of clitics to that found in (10a) and (11a) respectively. The position of clitics in (10b), (11b) is unattested in the corpus of medieval Catalan texts. This suggests it was probably ungrammatical in this period. Although finite verbs such as *volgués* or *poden* can host postverbal clitics in various syntactic contexts, they never do when they are preceded by a dependent non-finite verb such as the infinitives *entrar* or *dir*. This poses a problem for the single future hypothesis, as it assumes that future forms, both synthetic and analytic, have a structure in which an infinitive is followed by a finite verb form. The generalization illustrated in (10)-(11) indicates that, if future forms had the structure posited by the single future hypothesis, clitics should never

be attached after synthetic future forms. Yet, synthetic futures with postverbal clitics are attested in Old Catalan, as in (9), and, in fact, are frequent (see (4), (7b), and (8a), for more examples).

In addition, it can be shown that the same lexeme allows clitics to be placed freely either before or after the descendant of *habeo* in the future forms, as in (12):

- (12) a. *fer -la -li é molt volenters*  
do.INF -3SG.F.ACC -3SG.DAT will.1SG very willingly  
'I will do it to him very willingly' (Desclot, *Crònica*: III.33.29)
- b. *farem -ó molt volenters*  
do.FUT.1PL -HO very willingly  
'We will do it very willingly' (Pergamins II: 112.207)

In texts of the second half of the 13<sup>th</sup> century we observe that the verb *fer* has postverbal clitics both in the analytic future, (12a), and in the synthetic future, (12b). Therefore, one cannot assert that the choice of attaching clitics in either position is in any way determined by the lexeme.<sup>11</sup>

#### 2.6. The descendant of the infinitive in future forms is syntactically inert

INF in future forms does not behave in any way like an independent word, except with regard to the attachment of clitics in the analytic future, as shown by the following facts. First, INF cannot be separated from *habeo* (i.e. the descendant of *habeo*) by the word *no* or any other word or particle, except clitics. In other constructions where an infinitive precedes the governing verb, the word *no* appears after the infinitive and before the tensed verb, as in (13). In contrast, with future forms, *no* cannot intervene between INF and the following *habeo*, whether clitics are present or not, as shown by the unattested forms in (14).

- (13) a. *que seria cosa que fer no ·s poria*  
that be.COND.3SG thing that do.INF not SE could.COND.3SG  
'which would be something that could not be done'  
(Jaume I, *Fets*: 107V.13)
- b. *nul hom refer ni emenar no la pot al príncep*  
no man undo.INF nor amend.INF not 3SG.F.ACC can to.the Prince  
'[such dishonor that] no one can undo or amend it to the prince'  
(*Usatges*: 99.20)
- (14) a. *\*fer -no -s' ha* b. *\*emenar -no -la -hia*  
do.INF -not -SE will.3SG amend.INF -not -3SG.F.ACC -would.3SG  
'it will not be done' 'he would not amend it'

11. Naturally, if a verb lacks the analytic future form altogether (see § 2.2 and 2.3), the only possibility for postverbal clitics is to attach to the synthetic future.

Second, INF cannot follow *habeo*, whereas, with any construction involving an infinitive dependent on another verb, the infinitive can either follow or precede the governing verb. Compare the preposed infinitives in (13) with the equally good postposed infinitive in (15); in contrast, the analytic future in (12a) *fer-la-li é*, for example, does not allow postposing the INF, as that would yield unattested sequences such as *\*é-la-li fer* or *\*no la li é fer*.

- (15) *Seyor – dixeren éls –, açò no ·s poria fer*  
 lord say.PSTP.3PL they this not SE could.COND.3SG do.INF  
 ‘Lord – they said –, this could not be done’ (Jaume I, *Fets*: 54v. 20)

Third, INF cannot be coordinated with another infinitive, unlike what happens with infinitives in other constructions: compare the coordinated infinitives in (13b) (*refer ni emenar*) with the unattested and presumably ungrammatical (16), where the INF of a future form is a coordinate structure.

- (16) a. *\*[anar e tornar] é*  
 go.INF and return.INF will.1SG  
 ‘I will go and come back’  
 b. *\*[refer e emenar] l’ hia*  
 undo.INF and amend.INF 3SG.M.ACC would.3SG  
 ‘he would undo and amend it’

The evidence presented in this section supports two claims. First, the synthetic and the analytic future should not be analyzed as the same structure, that is, a syntactic structure consisting of an infinitive and an auxiliary that allows the inclusion of a clitic cluster. Second, synchronically, neither form includes an infinitive as a syntactic constituent, although the analytic future does include an infinitive as a morphological constituent.

### 3. The theoretical proposal

In order to explain the facts presented in the previous section, I propose that the synthetic future and the analytic future are different structures and both are words or single syntactic categories, i.e. minimal syntactic units. The synthetic future consists of a stem and affixes, like most other forms of the verb. The analytic future, on the other hand, is a compound consisting of an infinitive with a clitic cluster and a bound auxiliary, the latter being one of the forms *é/as/à/èm/ets/an*, in the future proper, and *ia/ies/...*, in the conditional. The analytic future is a word that has the internal structure [[infinitive][cl.cl.][é/ia]].<sup>12</sup> This proposal assumes that clitics are affixes, a claim that is argued for in § 3.1.

12. The idea that the analytic future is a word is by no means generally accepted: for medieval Spanish, according to Company Company (1985: 72), it is made up of free morphemes; and according to Eberenz (1991: 507), it is a periphrasis.

### 3.1. The affixal status of clitics in medieval Catalan

A fundamental assumption for the present analysis is that clitics are not syntactic constituents. From the categorial or morphological point of view, they are affixes (see Miller 1992; Miller & Sag 1997 for French or Alsina 1996 for modern Catalan). This is the case in medieval Catalan, as can be argued on the basis of various properties of clitics that are expected of affixes, but unexpected of syntactically independent constituents:

- a) *Degree of selection with respect to the host*: medieval Catalan clitics are always adjacent to a verb, whether preceding it or following it. Nothing can intervene between the verb and the clitic. There are no instances of interpolation (Fischer 2002), unlike Old Spanish and Old and modern Portuguese (Fontana 1996; Luís & Sadler 2003; among others). Consider the word *hom*, which could be used as a subject with a generic human interpretation. As such, it often appeared immediately following the verb of which it was the subject, preceding other dependents of the clause, as we see in (17a), or could follow a postverbal clitic, as in (17b), but could not separate the verb and the clitic, as in (17c):

(17) a. *a Messina no sabia hom negunes noveles de les galees,*  
 in Messina not know.PST.3SG one no news of the galleys  
 ‘in Messina no news of the galleys was known,’  
 (Desclot, *Crònica*: III.122.4)

b. *Ab tant menà -lo hom denant la emperadriu,*  
 with so much lead.PSTP.3SG him one before the empress  
 ‘At that point he was led before the Empress,’  
 (Desclot, *Crònica*: II.56.18)

c. \* *Ab tant menà hom -lo denant la emperadriu,*

- b) *Rigid and idiosyncratic ordering*: in medieval Catalan, sequences of clitics follow a strict order that takes into account person, case, and the specific clitic involved. An accusative precedes a dative, but only when the accusative is the third person /l/ clitic (*lo, la, los, les* and their contextual variants); when the accusative is *ho* or *en*, the reverse order (dative before accusative) is required. For example: *redé-l-me* ‘he returned it to me’ (*Vides*: 367.16), with the 3<sup>rd</sup> person singular accusative *-l* preceding the first person singular dative *me*; *cusí-la-li* ‘he sewed it onto him’ (Desclot, *Crònica*: III.33.29), where the two 3<sup>rd</sup> person singular clitics follow the order accusative-before-dative; in contrast, with *ho* as the accusative: *à-m’-ó tengut en vil* ‘he has held it against me’ (Desclot, *Crònica*: II.69.10); *atorgà-li-ó* ‘he granted it to him’ (Desclot, *Crònica*: II.157.18), where the dative *-m’* or *-li* precedes the accusative *-ho*.<sup>13</sup>
- c) *Arbitrary gaps in the set of combinations*: the 3<sup>rd</sup> person accusative /l/ clitic precedes a dative clitic, but no sequence of 3<sup>rd</sup> person dative and 1<sup>st</sup> or 2<sup>nd</sup>

13. Note that *ó* is an orthographic variant of *ho*, just like *y* is an orthographic variant of *hi*.

- person accusative, in either order, is attested. Forms such as *\*mostrà-me-li* or *\*mostrà-li'm* meaning ‘he showed me to him/her’ are consistently absent in medieval Catalan.
- d) *Morphophonological idiosyncrasies*: for some 13<sup>th</sup> century speakers, the 3<sup>rd</sup> person singular dative, which has the form *li* in most contexts, has the form *hi* when it combines with an accusative /l/ clitic (Ribera 2018). This gives rise to forms such as *deu-la-y hom donar* ‘one must give it to him’ (*Costums*: 215.9); *deu-lo-y retre* ‘he must hand it over to him’ (*Costums*: 36.23). Other speakers retain the sequences *la-li*, *lo-li*, etc., as in *cusí-la-li*, noted two paragraphs earlier. The sequences of a dative and an accusative clitic *lo-y* or *la-y* cannot be explained by a general phonological rule, but need a specific principle.
- e) *Allomorphy*: clitics exhibit allomorphic alternations not found elsewhere in the language. For example, the 1<sup>st</sup> and 2<sup>nd</sup> person plural clitics and the 3<sup>rd</sup> person masculine accusative plural come in the following pairs of alternating forms: *nos/ns*, *vos/us*, and *los/l's*. The first member of the pair is generally used when not preceded by a vowel, whereas the second member is only used when preceded by a vowel. The following examples illustrate this alternation, (18a) for the 1<sup>st</sup> person plural clitic and (18b) for the 2<sup>nd</sup> person plural clitic.
- (18) a. *vendrà ·ns desús e poran -nos fer gran dan*  
 come.FUT.3SG ·1PL on top and be.able.FUT.3PL -1PL do.INF great harm  
 ‘it will descend on us and they will be able to inflict great harm on us’  
 (Desclot, *Crònica*: II.177.12)
- b. *dic -vos e us hé ja dit*  
 tell.1SG -2PL and 2PL have.1SG already told  
 ‘I tell you and have already told you’ (Desclot, *Crònica*: III.164.2)
- f) *Clitics cannot be conjuncts in a coordination*: whereas syntactic constituents can normally be conjoined by means of the coordinating conjunctions *e* ‘and’, *ne* ‘or’/‘nor’, *mas* ‘but’, etc., it is not possible to coordinate clitics. Thus, based on *axí lexaren-lo estar* ‘so they let him be’ (Desclot, *Crònica*: II.127.13), the constructed form *\*axí lexaren [-lo e -me] estar* ‘so they let him and me be’ is unattested and presumed to be ungrammatical. Likewise with *\*res no [us ne li] falirà en ma cort* ‘neither you nor him will lack anything in my court’, based on *res [...] no us falirà en ma cort* ‘you will not lack anything in my court’ (Desclot, *Crònica*: II.9.25).

The affixal status of clitics that these properties indicate is compatible with the assumption that clitics fulfill various grammatical functions (direct object, indirect object, oblique complement, etc.). The claim that affixes may be morphologically incorporated grammatical functions is found in frameworks that separate the representation of grammatical functions from their phrase structure representation, such as Lexical-Functional Grammar (LFG) or Head-Driven Phrase-Structure Grammar (HPSG) (e.g. Bresnan & Mchombo 1987).

3.2. *A formalization of the proposal*

Having argued that so-called clitics in Old Catalan are affixes, it is necessary to distinguish two layers of inflectional affixes (see also Luís & Spencer 2005: 200 for Portuguese): inner affixes, which generally correspond to mood, tense, and (subject) agreement information, and outer affixes, which correspond to what we have been calling clitics and generally carry anaphoric reference and person, number, gender, and case information about the objects and other complements of the verb. The outer affixes, if any, form a morphological constituent (the clitic cluster, or CCL) that attaches to a verb that includes its inner affixes. Old Catalan had two ways of expressing the future (i.e. the future proper and the conditional):

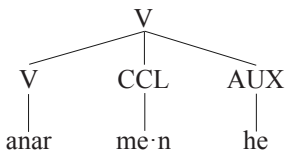
- 1) the synthetic future: a verb form consisting of a stem and a sequence of inner affixes. We can assume that these inner affixes are the exponents of the set of morphosyntactic properties associated with the word form (along the lines of Anderson 1992; Stump 2001, 2016; among others); and
- 2) the analytic future: a compound consisting of an infinitive, a CCL, and a bound auxiliary that carries the tense feature (either future or conditional) and the person and number agreement features corresponding to the subject. The analytic future is formed according to a compounding rule, such as the following, which includes a phonological condition on the infinitive requiring it to end in a consonant:

(19) *Analytic future compound rule:*

$$\begin{array}{rcccc}
 V \rightarrow & V & \text{CCL} & \text{AUX} \\
 & \text{INF} & & \text{FUT } V \\
 & & & \text{COND} \\
 \text{Phon: } & [\dots C] & & 
 \end{array}$$

This rule joins an infinitival form ending in a consonant, a CCL, and an auxiliary form with the tense-mood feature FUT (future) or COND (conditional) to constitute a verb form. The AUX is a form of the set {e/as/a/em/ets/an}, if it has the feature FUT, or of the set {ia/ies/ia/iem/iets/iem}, if it has the feature COND, depending on the different person and number combinations. Morphologically, the verb form licensed by (19) has the structure indicated in (20), using the sequence *anar-me·n hé* from (8b) as an example:

(20)



Syntactically, if we distinguish the representation of syntactic categories from that of grammatical functions, as in LFG and other frameworks, an analytic future

is just an atomic V from the point of view of its categorial status, but, from the point of view of the feature structure, or f-structure, that it is associated with, it carries the argument structure or subcategorization information corresponding to the infinitive, the tense-mood feature and the agreement features of the AUX, and the information about pronominal complements corresponding to the clitics.

The phonological condition on the infinitive in the compounding rule (19) accounts for the restriction noted in § 2.2, namely that the analytic future is only possible with those verbs whose infinitive form ends in a consonant.<sup>14</sup> This condition does not violate the Principle of Phonology-free Syntax, since it is a condition on a morphological structure, not on a syntactic structure. Thus, all vowel-final infinitives are excluded from the analytic future and, when a verb has two infinitival forms – consonant-final and vowel-final, as with *plaer/plaure* ‘please’ or *assaer/asseure* ‘seat’ – only the consonant-final form is attested in the analytic future.

Verb lexemes may be specified as exceptions to this rule, accounting for the non-occurrence of the analytic future with certain verbs, despite satisfying all the requirements of the rule, as seen in § 2.3. These lexical gaps are an instance of defectiveness in inflectional paradigms, a situation “where one or more paradigmatic forms of a lexeme are not realized, without plausible syntactic, semantic, or phonological causes” (Fábregas 2018). Some verbs are lexically specified to lack particular forms in the paradigm. So, in medieval Catalan, verbs such as *poder* ‘can, be able’, *haver* ‘have’, *veer* ‘see’ or *trerer* ‘remove’ (see § 2.3) are lexically marked as lacking the analytic future compound form. If the analytic future were a syntactically complex structure, it would be unexpected for verbs to be idiosyncratically barred from appearing in it. Defectiveness is clear evidence that the missing form is a word (a morphological structure) (Fábregas 2021; see also Baerman & Corbett 2010; Boyé & Cabredo Hofherr 2010; Stump 2010, 2016; Gorman & Yang 2019; Thornton 2019; and Xu 2019, among others).

The observation made in § 2.4 that the analytic future always contains a sequence phonologically identical to an infinitive, whereas that is not the case for the synthetic future, follows from the fact that the compounding rule (19) includes an infinitive form and from not having an infinitive in the derivation of the synthetic future. The synthetic future does not contain an infinitive in the synchronic grammar of Old Catalan (although it does diachronically), unlike the analytic future. The infinitive and the synthetic future may diverge phonologically through allomorphic alternation or even suppletion, as with the infinitive *anar* ‘go’ and its synthetic future *iré/iràs/...* ‘will go’. The analytic future, in contrast, if it exists for a given verb, includes a sequence that is identical to the infinitive, as seen with *anar-me-n hé* in (8b). Suppletion is a clear diagnostic of wordhood, since no language has root suppletion that is conditioned by an independent word (or free-standing morpheme) (Bobaljik 2012); consequently, the analytic future has to be a

14. As noted earlier, some speakers might have had the stricter condition requiring the infinitive to be stressed on the last syllable. This condition excludes all vowel-final infinitives, plus a few that have penultimate stress and end in a consonant. For expository purposes, I will assume the condition in the text.



single word, not a syntactically complex structure. See Mel'čuk (2000); Hippiisley et al. (2004); Stump (2010, 2016); Bauer (2019); Thornton (2019), among others, for the status of suppletion as a morphological phenomenon.

The observation that clitics can attach either to the end of a synthetic future or after the infinitival form in an analytic future, seen in § 2.5, is a problem for the claim that the two futures are the same form. But it follows naturally from the proposal made in this paper. A synthetic future is an ordinary inflected form of a verb and, as such, depending on the syntactic context in which it is used, can have clitics immediately before it or immediately after it (see § 2.1), as shown in the contrast in (7a-b), as well as in many other examples in this paper. An analytic future is a compound form that includes clitics after the infinitival form and before the bound auxiliary. The apparent choice with respect to the position of the clitics with future forms is not real: the speaker cannot choose to insert the clitics in one position or the other. The language provides two ways of forming a future form: if the synthetic future is chosen, clitics may attach to the end of it or before it, but nowhere else; if the analytic future is chosen, clitics must attach following the infinitival form of the compound. As noted in § 2.1, analytic forms occur in the syntactic contexts that allow enclisis. Therefore, they are not in competition with synthetic forms in general, but only with synthetic forms with postverbal clitics. Verbs that have an analytic future show variation between the analytic future and the synthetic future with postverbal clitics, a fact that is also observed in Old Spanish (Matute & Pato 2010: 61-62).

The syntactic inertness of the descendant of the infinitive in both futures, shown in § 2.6, follows from the claim that there is no infinitive in the synthetic future and that there is no infinitive as a syntactic component in the analytic future: the infinitive is only a morphological component of the analytic future (i.e. the analytic future is not periphrastic in the sense of Stump 2001: 231-233). The idea that syntactic operations cannot access the morphological composition of a word is embodied in principles such as Scalise's (1984) Strong Lexicalist Hypothesis, the syntactic atomicity of words of DiSciullo & Williams (1987), the principle of Morphology-free Syntax of Pullum & Zwicky (1992) and Zwicky (1969), the Lexical Integrity Principle of Bresnan & Mchombo (1995), Mohanan's (1995) strong version of the Lexicalist Hypothesis, among others. Given this idea, the infinitive in the analytic future is just a word part and, as such, inaccessible to syntactic operations (see § 2.6): it cannot be separated from the rest of the word, appear following, instead of preceding, the bound auxiliary, or be coordinated with another infinitive.

#### 4. Conclusions

The synthetic and analytic future, in spite of their many shared features (same semantics, same tense and agreement morphology) and in spite of their common historical origin, are shown to be different forms in medieval Catalan. In addition, both of these patterns are words, verb forms within the inflectional paradigm of a verbal lexeme. They differ in that the synthetic future is a verb form derived

through affixation (of inner affixes) to the verb stem, as is the case for most verb forms, whereas the analytic future is a verb form derived through compounding. Although compounding is usually taken to be a morphological device employed in lexeme-formation, as opposed to inflection (see Aronoff 1994, 2019: 53; Fabb 1998; ten Hacken 2000, 2017; Stump 2016: 63-64; Bauer 2017; Libben et al. 2020), the analytic future qualifies as an instance of compounding used in inflection to derive a particular form in the paradigm.

The situation described is an instance of overabundance, “in which two (or more) inflectional forms are available to realize the same cell in an inflectional paradigm” (Thornton 2011; 2019; Stump 2016). Although not all lexemes in Old Catalan had the analytical future available, either because they did not satisfy the phonological requirement or because of idiosyncratic defectiveness, those lexemes that had that option also had the option of the synthetic future with postverbal clitics. Attested examples of lexemes having both options include, in addition to *anar* ‘go’, seen in (8a-b), and *fer* ‘do’, seen in (8c) and (12), *dir* ‘say’ and *entrar* ‘enter’, as shown by *dir-vos-é / dirà-te* and *intrar-í-é / entrarà-y* (from *Vides*).

A key factor for the claim that the analytic future is a word is the assumption that clitics are affixes, as they are an obligatory part of the analytic future compound. See Libben et al. (2020: 343-344) for the observation that compounds may contain non-lexical elements. In this we follow other authors who have claimed that verbal clitics are affixes in various Romance languages. This claim is supported by abundant evidence in medieval Catalan.

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