

The road to auxiliariness revisited

The grammaticalization of FINISH anteriors in Spanish

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Auxiliary verbs are known to grammaticalize from lexical verbs, but how do lexical verbs acquire verbal complements to begin with? This article provides an account of the semantic and pragmatic basis of grammaticalization of the Spanish anterior ('perfect') [*acabar* + *de* + infinitive] from a lexical source construction meaning FINISH. Based on a description of FINISH in terms of its qualia structure, we argue that verbs meaning FINISH are lexically unsaturated, with an event variable that must be assigned a value, whether implicitly by inference or explicitly by a verbal complement. We show on the basis of historical corpus data from the 13th–18th centuries that overt lexical verb complements are initially motivated by informativity: the infinitive is used to describe the event when the type of event is unexpected. However, this original constructional meaning is eventually lost due to the process of OVERTIFICATION, which has not been discussed in the literature on language change. Writers started using the infinitive in contexts in which the finished event is not unexpected. The subsequent development of the temporal meaning is motivated by the failure of listeners to accommodate too-costly presuppositions in a particular syntactic context, leading to the reanalysis of the constructional meaning. Consequently, overtification was a necessary condition for the subsequent temporalization of the construction. These findings shed light on possible reasons for the grammaticalization of auxiliary verb constructions, at both early and later stages in their developmental histories.

Keywords: pragmatics, Spanish, auxiliary verb constructions, grammaticalization, perfect, diachronic corpus linguistics, overtification, informativity

1. Introduction

According to a widely cited statement by Bolinger, “The moment a verb is given an infinitival complement, that verb starts down the road of auxiliariness” (1980: 297). Research on the grammaticalization of auxiliaries seems to confirm this observation, and numerous studies have confirmed both the gradient synchronic nature of auxiliary verbs, on the one hand, and the gradual diachronic processes through which they develop, on the other (Heine 1993; Bybee et al. 1994; Kuteva 2004; Anderson 2006). However, to the best of our knowledge, there have been few attempts to explain how verbs acquire infinitival complements in the first place. The goal of this paper is to provide such an explanation for a single class of lexical verbs that are known to grammaticalize into tense-aspect auxiliaries, namely, verbs meaning FINISH, i.e., an agent’s act of bringing a process to completion.

Verbs meaning FINISH are well represented in the development of completive constructions and, afterwards, anteriors (‘perfects’) (see Heine & Kuteva 2002: 134–138). For instance, in their survey of grammaticalization pathways, Bybee et al. (1994: 69–74) give examples for anteriors based on the lexical meaning FINISH for languages as diverse as Sango (Central Africa), Mwera (Tanzania), Tok Pisin (Papua New Guinea) and Palaung (Burma). They show that in many of these languages, FINISH anteriors can have the same discourse-pragmatic functions as HAVE/BE anteriors in Indo-European languages.

Given that FINISH anteriors have mostly been studied in languages that have no or only very recent written traditions, to our knowledge there are no corpus-based diachronic analyses of the grammaticalization of these constructions. As a result, although synchronic typological data strongly suggest a grammaticalization pathway of the type FINISH > COMPLETIVE > ANTERIOR, we still do not know the specifics of this change. For instance, one might ask why FINISH verbs need to make the ‘detour’ via completive constructions in order to develop a temporal meaning. Likewise, in line with models of grammaticalization such as that proposed by Heine (2002), it would seem necessary to determine in which bridging contexts, i.e., contexts in which innovative pragmatically-derived interpretations of an utterance are available alongside the older conventional meaning, a temporal meaning of FINISH constructions could have arisen.

In this paper, we conduct a detailed analysis of the grammaticalization of FINISH anteriors on the basis of diachronic data that aims at answering these questions. Crucially, Spanish, a language with a written tradition that goes back to the Middle Ages, has developed a FINISH anterior comprising the erstwhile lexical verb *acabar* ‘finish,’ followed by the preposition *de* ‘of,’ which in turn governs an infinitive (see (1)).

- (1) *Juan acab-a de comprar un coche.*
 Juan finish-PRS.3SG of buy DET.INDF.M.SG car
 “Juan just bought a car.”

We examine almost 2000 tokens of FINISH constructions in a corpus of Spanish historiographical texts from the mid-13th to the end of the 18th century. Our results suggest that we have to acknowledge a process of language change in which previously inferred meanings are later obligatorily expressed in an overt fashion, a process which we call here OVERTIFICATION. This change, we argue, is motivated by inferential principles. The process of overtification precedes and in fact facilitates the subsequent temporalization of the construction, which is the result of a complex interplay of semantic, syntactic and pragmatic aspects of the contexts of usage in which the grammaticalizing construction occurs.

The main contributions of this paper, in our view, are twofold: first, an account of the first step down Bolinger’s road to auxiliariness, i.e., the initial stages of a lexical verb acquiring a verbal complement; second, an account of the temporalization of the completive construction.

The structure of this paper is as follows. In § 2, we develop a pragmatic approach to the grammaticalization of FINISH anteriors. In § 3, we briefly explain the methodology, and in § 4 we describe the use of [*acabar + de + infinitive*] and competing constructions in Old Spanish. In § 5, we address the process of overtification and the subsequent acquisition of temporal meaning by the construction, and in § 6 we discuss the scope of our findings beyond the present case study.

2. A pragmatic account of the grammaticalization of FINISH anteriors

We propose a pragmatic approach to the grammaticalization of periphrastic constructions such as FINISH anteriors. Pragmatic approaches to grammaticalization are fundamentally usage-based in that they attribute the origin of grammaticalization processes to discourse-pragmatic factors in language use. Such accounts are by no means new, and ‘context-induced reinterpretation’ (Heine et al. 1991), ‘pragmatic inferencing’ (Bybee et al. 1994) and ‘invited inferencing’ (Traugott & Dasher 2002), among others, have often been invoked to explain the semantic change that overwhelmingly characterizes grammaticalization (for a recent survey, see Grossman & Noveck 2015). In this section, we look at two such pragmatic approaches and derive predictions for the process of grammaticalization of FINISH anteriors.

Consider Detges & Waltereit’s (2002: 176–181) account of speaker-oriented changes marking the beginning of grammaticalization. Detges & Waltereit argue

that the reanalysis that leads to the eventual grammaticalization process comes about by pragmatic factors, in particular, INFORMATIVITY. We define informativity as the extent to which the contents of an utterance are known or expected by the speaker as compared to unknown or unexpected. To give a simple example, when asking a friend *Where is the coffee pot?*, she might answer that it is *in the kitchen*. However, since I am likely to assume in any event that the coffee pot is in the kitchen, such an answer is less informative than, e.g., an answer specifying that the coffee pot is *in the cupboard*. Consequently, more informative propositions impact a discourse participant's conceptualization of the world to a greater degree than less informative propositions.

According to Detges & Waltereit, there is a close link between informativity and the emphatic use of utterances. We understand Detges & Waltereit's concept of emphasis in terms of DISCOURSE RELEVANCE and assume that informativity and discourse relevance are separate concepts, because not all informative utterances need to be relevant to discourse. For instance, if we interrupt a colleague's lecture on linguistics with the utterance *Trump won the election!*, this utterance might be highly informative, i.e., unexpected. However, it is clearly not relevant to discourse in this context. In other words, while speakers usually emphasize (parts of) an utterance in order to mark this utterance as specifically relevant to the discourse, these utterances may be more or less informative.

Detges & Waltereit claim that the connection between informativity and emphasis or discourse relevance plays an important role in the onset of grammaticalization processes. In particular, speakers are frequently over-informative in order to emphasize the truthfulness of the message or to achieve other communicative goals. Detges & Waltereit illustrate this idea using the example of the grammaticalization of the French negative marker *pas* from its original meaning "step" first to a marker of emphatic negation and second to simple negation. Whereas *passum* "step" is still used in its lexical meaning in negative constructions in Vulgar Latin (2), in Old French it functions as a marker of emphatic negation (3) and can be roughly translated as "not at all".

- (2) Lat. *non passum vadere*
 NEG step walk
 "not to walk (even) a (single) step" (Detges & Waltereit 2002: 173)

- (3) O.Fr. *Un Sarrazin i out de Sarraguce, De*
 DET.IDF.M.3SG Sarrazin there be.PST.PFV.3SG of Sarraguce of
la citet meitet est sue:
 DET.DEF.F.3SG city half be.PRS.3SG POSS.3SG
Ço'=st Climborins ki pas ne
 DET.DEF.3SG=be.PRS.3SG Climborins who EMPH/*step NEG
fut prozdome
 be.PST.PFV.3SG brave.man
 "A Sarrazin was there, of Sarraguce, Of that city one half was his by use,
 This is Climborins, who was not a brave man at all."
 (ChRol 1526–1528)

In (3), the assertion that Climborins was not a brave man contrasts with the information about him given previously. Specifically, the fact that Climborins owned half of the city is likely to have created the expectation in the listener/reader that this Climborins was an accomplished and brave man. *Pas* counters this expectation. Specifically, *pas* is used in contexts in which the negated proposition is surprising or doubtful given the previous discourse, in order to emphatically assert the truth of the negated proposition (Detges & Waltereit 2002: 179). Consequently, *pas* is highly informative in such contexts. The emphatic value of *pas* in examples such as (3) derives from its informativity via a rhetorical principle described as follows by Detges & Waltereit (2002: 177): "If you want to express in a strong way that some state of affairs did not take place at all, say that the state of affairs in question did not even take place to the smallest degree imaginable."

According to this reasoning, this rhetorical principle explains the grammaticalization of *pas*. It is convenient for speakers to mark propositions as highly informative because this ensures the listener's interest, thus furthering the conversational flow. Consequently, "speakers can choose to 'abuse' markers of emphatic negation in order to pretend that the negative assertion of some state of affairs which they are about to utter is particularly surprising and relevant" (Detges & Waltereit 2002: 183). In other words, they use emphatic negation in contexts in which its use is not licensed, i.e., contexts where there is no strong counter-expectation on the part of the listener. However, in doing so, they jeopardize the emphatic value of *pas* because of "the general principle that recurring experiences lose their perceptual saliency" (Detges & Waltereit 2002: 178); if more and more speakers use *pas* in uninformative contexts, there is no longer a reason for a listener to assume that *pas* marks informativity.

The grammatical change in question can thus be understood as a gradual intrusion of the use of the emphatic negation marker from contexts of strong counter-expectation into pragmatically neutral contexts, ultimately leading to the modern use of *pas* in French. Comparable suggestions about the role of speaker

expressivity in language change have been made by, e.g., Traugott, who has often argued that the main motivation for semantic change in grammaticalization is located in speakers' expression of their subjective states of mind (Traugott & Dasher 2002). However, it is not enough to model this process from the perspective of the speaker because such a model would not account for the eventual loss of expressivity of *pas*. In particular, speakers have no reason to use *pas* less expressively over time. Moreover, as has occasionally been observed, it takes two to tango: speakers can innovate as much as they want, but if their innovations are not picked up on – i.e., perceived and replicated – by listeners, then the innovations will not diffuse; moreover, the pragmatic strategies that govern listeners' interpretations of utterances also tend to place a regulatory 'ceiling' on how far speaker innovations can go (Hansen 2008: 100; Schwenter & Waltereit 2009: 77; Grossman & Polis 2014: 28–30). According to Detges & Waltereit, the reanalysis of *pas* as a marker of standard negation was a listener-induced change. According to their PRINCIPLE OF REFERENCE, listeners interpret the contextual meaning of an utterance as the linguistic or coded meaning of a construction (Detges & Waltereit 2002: 156). Regarding their example of negation, they argue that due to the conventionalization of the rhetorical routine of using reinforcing NPs in negative contexts, listeners start perceiving reinforcing NPs as the real negation elements. Thus, "the listener who proceeds according to the Principle of Reference ... assumes that the real meaning of what he hears (not a step) is what seems to be referred to in the situation (not at all)" (Detges & Waltereit 2002: 180).

Although the Principle of Reference provides an attractively simple account of how contextual meanings become coded meanings over time, it is nonetheless problematic. The first problem is empirical: if listeners consistently interpret contextual meanings as linguistic or coded meanings, then linguistic meaning should be highly unstable. Yet meanings can be highly stable over time, as can pragmatic functions associated with a construction. For example, Hansen & Waltereit (2006) demonstrate that conventionally indirect speech acts RESIST semanticization. Furthermore, the Principle of Reference turns the semantics vs. pragmatics division of labor into an either-or problem, at least at the level of the individual speaker. However, the interplay of coded meanings and inferences in online utterance production and interpretation, on the one hand, and in language change, on the other, seems to point to a more complex picture (Ariel 2008). Finally, the Principle of Reference does not predict in WHICH cases a contextual meaning will be interpreted as a coded one.

A second approach, Eckardt's (2009) principle of AVOID PRAGMATIC OVERLOAD (APO), offers a possible solution to this problem by giving a more detailed picture of how listener-based reanalyses can take place. Eckardt assumes that listener-based reanalysis arises when the speaker uses a linguistic element with a

certain presupposition in contexts in which this presupposition is not valid or plausible. As an example, she discusses adverbs with a gradable meaning such as English *even*. The original meaning of *even* was “exactly” (4). However, at some point in time *even* occurred in contexts that exclude the presupposition of exactness, such as (5).

- (4) O.E. *The heght is euen thyrtty Cubettys full strenght*
 “The height is exactly thirty cubits full strength” (Eckardt 2009: 29)
- (5) O.E. *whanne I remembre your ffavour and your sadde loffynge delynge to me wardes, ffor south ye make me even veray glade and joyus in my hart*
 “When I remember your beauty and sober loving behavior to me, truly you make me really very glad and joyous in my heart”
 (Eckardt 2009: 30)

Contexts such as (5) demonstrate an emphatic use of *even*. As noted by Eckardt, *veray glade* “very glad” denotes a gradable context with vague boundaries. This vagueness of meaning excludes a reading of *even* as “precisely”, as a phrase such as *precisely very happy* is semantically incongruous. In Eckardt’s terminology, contexts such as (5) create a PRAGMATIC OVERLOAD because there is no possibility for the listener to accommodate the original meaning of *even* in this context. The fact that the listener realizes that s/he cannot rely on her or his knowledge of the semantics of *even* leads her or him to infer the meaning of *even* from the context. Due to the emphatic nature of the context, the listener likely attributes a meaning to the *even* in (5) that is similar to the modern semantics of *even*, namely, expressing that a degree attribute has a higher value than would have been expected.

We can apply Eckardt’s APO account to the example of French *pas* in the following manner. As noted above, *pas* carried the presupposition that the negated proposition was especially informative in a certain context. When speakers started using *pas* in contexts in which this presupposition did not hold (i.e., exploiting the presupposition in order to mark the proposition as informative), this rhetorical use of *pas* created a pragmatic overload since listeners could not accommodate the original meaning of *pas*. They therefore reanalyzed the meaning of *pas* from emphatic to non-emphatic negation.

Both examples analyzed by the pragmatic approaches to grammaticalization given until now – French *pas* and English *even* – involve structurally simple morphemes that involve a degree interpretation. In order to test the viability of such approaches, it is necessary to test the theory on a qualitatively distinct phenomenon. Moreover, it is necessary to make explicit how and why listeners interpret pragmatically overloaded utterances in the ways that they do, i.e., in the ways that lead to specific and cross-linguistically recurrent pathways of change.

In this paper, we apply the pragmatic approach to grammaticalization outlined above to the historical development of verbal periphrases, i.e., complex

constructions that usually express aspectual or modal meanings rather than involving a degree interpretation. Specifically, we consider the creation of FINISH anteriors in Spanish (Yllera 1980: 196; Olbertz 1991; Veyrat Rigat 1994; Rivas 1996; Fernández de Castro 1999: 267; Burgos 2003; García Fernández et al. 2006: 65–74; Real Academia Española 2010: 543). In Present Day Spanish, [*acabar* + *de* + infinitive] typically is used to express recent past (6), although it is sometimes ambivalent between the recent-past reading and a reading that refers to the conclusion of an event, as in (7) (examples from Veyrat Rigat 1994: 238–239).

- (6) *Acab-a-ba de cumplir los 72 año-s.*
 finish-THEME-PST-IPFV.3SG of fulfill DET.DEF.M.PL 72 year-PL
 “He just turned 72”
- (7) *Juan acab-a de leer un libro estupendo.*
 Juan finish-PRS.3.SG of read DET.INDEF.M.SG book great
 “Juan just read a great book”
 “Juan is about to finish reading a great book”

The fact that this construction allows both a temporal (recent past) reading and an aspectual (completive) one in Modern Spanish suggests that a diachronic development has affected the construction. Indeed, Example (8) given by Yllera (1980: 196) suggests that Old Spanish [*acabar* + *de* + infinitive] derives from the juxtaposition of *acabar* and the infinitive, which led to a completive reading.¹ We therefore assume, with Olbertz (1998: 240), that the completive reading is more basic to the construction than the recent past reading.

- (8) *todos cobdiçia-ua-n acabar uençer et ganar prez pora siempre*
 all desire-PST-IPFV.PL finish triumph and win honor for always
 “They all desired to triumph and become famous forever”
 (*Estoria de Espanna II*, 1270–1284)

As stated above, there are fundamental differences between the examples of grammaticalization processes discussed above and aspectual periphrases such as FINISH anteriors. In order to explain these differences and derive predictions for the grammaticalization of [*acabar* + *de* + infinitive], in the following we develop a model of the semantics of FINISH verbs.

Our starting point is the observation that the semantics of FINISH verbs is necessarily schematic, in that the finished event needs to be specified in the context. Consider Example (9) below. A statement such as *John finished the pasta* (9a) is

1. We take Old Spanish to roughly correspond to the time between the first texts in Proto-Spanish and the mid-15th century, when a number of important grammatical changes occurred in Spanish.

underspecified in that the finished event is not expressed. While the speaker has the option of specifying the finished event in English, by adding a gerund such as *eating* (9b), in examples such as (9a) the listener has to infer which event was finished on the basis of contextual clues. Although *eating* is probably the most likely inference, other inferences are possible (for instance, *preparing*).

- (9) a. *John finished the pasta.*
 b. *John finished eating the pasta.*

Aspectual verbs such as FINISH could be called inherently or lexically UNSATURATED verbs, following Recanati (2004: 7; 2012). Recanati proposes that there are pragmatic meanings that involve the fixing of a variable in order to compute a proposition, a process which he calls SATURATION, a “pragmatic process of contextual value assignment that is triggered (and made obligatory) by something in the sentence itself, namely, the linguistic expression to which a value is contextually assigned” (2012: 71). Typical examples of unsaturated expressions are indexicals and (unbound) pronouns, but they also include predicates like *ready*, which Recanati claims means *ready for X*. In the present context, what is important in Recanati’s observation is that the assignment of a variable for such unsaturated items is mandatory and is mandatorily assigned by context; in his words, “no proposition is expressed unless a value is assigned to the variable” (2012: 70). In unsaturated expressions, pragmatics determines which value to assign in context to the variable, but it is the semantics of the linguistic expression that determines that a value has to be assigned in the first place.

But how exactly does this assignment process work? With QUALIA STRUCTURE, Pustejovsky’s Generative Lexicon theory (Pustejovsky 1991, 1995) helps address this question. A QUALE is an aspect of the meaning of the word. Specifically, it refers to the type of relationship between the concept expressed by the word and a concept evoked by that word. For instance, a word such as *pasta* evokes the concept of EATING. The relationship between the concepts of EATING and PASTA can be defined as a TELIC QUALE (the USED-FOR RELATION, i.e., information on the purpose and function of the concept PASTA). In addition to telic qualia, a concept includes information on FORMAL qualia (the IS-A relation, e.g., *terrier* – DOG), constitutive qualia (the PART-OF relation, e.g., *finger* – HAND) and AGENTIVE qualia (the CREATED-BY relation, e.g., *letter* – WRITE).

Pustejovsky proposes that sentences such as (9a) involve a ‘hidden argument’ and argues that aspectual verbs select for a type of event. In other words, they include an event variable and can therefore be described as in (10), where the variable *s* refers to the subject of the sentence and *e* refers to the event that *s* has finished.

- (10) FINISH (*s*,*e*)

In *John finished the pasta*, in which the complement is not an event function, the event type is reconstructed on the basis of the qualia associated with the complement (Pustejovsky 1991: 115–122, 198–199). The relevant qualia will typically be either telic or agentive. The first option leads to *John finished [eating] the pasta*, the second to *John finished [preparing] the pasta*.

Sentences with FINISH verbs that do not specify the event have DEFAULT INTERPRETATIONS based on the telic or agentive quale associated with the verb. This observation is highly relevant for our pragmatic account of the grammaticalization of FINISH verbs. In particular, we would like to argue that whether or not the finished event in a sentence with a FINISH verb is made explicit depends on the degree of informativity of the event in this given context. Thus, given that the events EATING and PREPARING can easily be derived from the qualia structure of the concept PASTA in our example above, inserting the gerunds *eating* and *preparing* in the sentence *John finished the pasta* will in general add relatively little information to the sentence. We would therefore expect that sentences such as *John finished eating the pasta* or *John finished preparing the pasta* are relatively infrequent. In contrast, when the finished event differs from the default interpretation, the event is highly informative. For instance, consider the case in which the finished event is INSTAGRAMMING. Although in particular discursive contexts, the listener might well be led to interpret *John finished the pasta* as ‘John finished instagramming the pasta’, the default interpretation reflects deeply entrenched expectations or presuppositions about how the world works, and all things being equal, any speaker meaning other than the default one will be relatively more informative. Given that the event INSTAGRAMMING is usually more informative than EATING or PREPARING in such a sentence, we would expect a higher probability for speakers to overtly express the concept of INSTAGRAMMING than the concepts associated with the qualia structure of *pasta*.

All these considerations derive directly from the semantics of FINISH and can thus be considered to be relevant to a primary usage context of FINISH. As a result, in an early stage of the change, we predict that FINISH will occur without a verbal complement when the default interpretation is the speaker-intended meaning but with an overtly expressed verbal complement when the finished event differs from the default interpretation. This would lead to the distribution in (11).

- (11) a. *John finished [eating] the pasta.* (finished event inferred)
 b. *John finished instagramming the pasta.* (finished event overtly expressed)

Until now, we have argued that the degree of informativity of an event in FINISH sentences with complements depends on the semantic relation between the complement and the finished event. However, it also appears that there are certain usage contexts in which overt mention of the finished event is of overall lower informativity. Consider the sentences in (12)–(13).

- (12) a. *John finished his song.*
 b. *John finished singing his song.*
- (13) a. *John finished.*
 b. *John finished singing.*

Although in (12), FINISH takes a complement, the complement *song* refers not to an artifact (such as PASTA) but to an event in itself. Both the telic and agentive qualia associated with the concept SONG will usually be SINGING. As a result, the event predicate SINGING is relatively uninformative in this sentence; we only need (12a) to arrive at the speaker-intended meaning. This is why (12b) seems rather redundant, at least without the support of a particular context.

In contexts in which FINISH does not take a complement, such as (13a), a different kind of mechanism is at work. Without the right context, it is impossible to infer the finished event SINGING from the utterance *John finished*. This is due to the fact that there is no complement whose qualia structure could guide the interpretation of the sentence. In this sense, one could argue that in sentences such as (13a) the finished event would be maximally informative. However, in practice, such sentences are restricted to contexts in which the finished event is topical, as in (14). Due to the topicality of the finished event, the listener does not need to infer it on the basis of the qualia structure of the complement. As a result, the finished event is extremely uninformative, which is why Example (14b) seems pragmatically ill-formed.

- (14) a. *John started singing at 12 o'clock, and finished five minutes later.*
 b. **John started singing at 12 o'clock, and finished singing five minutes later.*

In summary, our discussion of the Examples (13)–(14) makes the additional prediction that in an early stage of the change, the overt mention of the finished event is in general less likely in sentences in which the complement refers to an event or state and in sentences in which there is no complement than in sentences in which the complement refers to an artifact.

The mechanism described here – finished events are likely to be made explicit only if they are informative² – is what we could call the driveway that leads to Bolinger's road to auxiliarieness. In other words, it accounts for how FINISH verbs acquire non-finite verbal complements. However, while in English, *finish* (+ gerund)

2. As an anonymous reviewer points out, this could be derived straightforwardly from Gricean principles. Indeed, one might phrase this assumption in terms of Levinson's heuristics, e.g., "What is said simply, briefly, in an unmarked way picks up a stereotypical interpretation; if in contrast a marked expression is used, it is suggested that the stereotypical interpretation should be avoided" (Levinson 2000: 38).

appears to have remained at the end of the driveway, in Spanish, [*acabar + de + infinitive*] has continued on the road to auxiliariness. How does informativity relate to the subsequent grammaticalization of FINISH constructions in some languages?

In line with Detges & Waltereit's account of the use of pragmatically-marked constructions for rhetorical purposes beyond their original function, one might expect that speakers can express the finished event overtly even when it is not informative in a given context, i.e., when it matches a stereotypically inferred event. Continuing with the above example, this would lead to the licensing of utterances such as *John finished eating the pasta*, with an overtly expressed verbal complement referring to the finished activity. We call this process OVERTIFICATION, as defined in § 1: a diachronic process in which previously inferred meanings become overtly expressed. The basic mechanism governing overtification processes can be sketched as follows. Speakers start making uninformative (stereotypical, expected) finished events overt (e.g., *finish eating the pasta*) in order to exploit the presupposition that the finished event is informative. In other words, because they realize that the listeners will assume that they (the speakers) would only express a finished event overtly if it were informative in a given context, by expressing an uninformative event overtly speakers mark this event as informative. We stress that 'overtification' is used here as a label for both an online ('synchronic') phenomenon – an instance of use of an overt expression for a previously inferred meaning – and a diachronic process, in which previously inferred meanings become overtly expressed as a matter of routine. The relationship between the two is basically a micro-macro relation, under the assumption that long-term changes are the result of the aggregation of individual acts by speakers and listeners. There is nothing unusual in using a single term for both a synchronic and diachronic phenomenon; this is common practice in phonetics and phonology, in which one can speak of the contextual nasalization of a vowel in a given utterance as well as the process of nasalization through which nasal vowels develop as allophonic or distinctive sound units. The relation between usage and language change is parallel in the two cases: according to most hypotheses, diachronic processes of nasalization are ultimately rooted in instances of contextual nasalization in actual utterances (Ohala 1993). In a similar vein, we assume that it is plausible that the diachronic process of overtification is the result of the aggregation of overtification events in actual utterances.

The question, at this point, becomes: why do speakers mark an uninformative event as informative in the first place? We propose that what makes an event informative in uninformative contexts from the perspective of the speaker are factors that do not relate to the qualia structure of the complement but rather to discourse. Specifically, by marking an uninformative event as relevant to discourse, speakers build up topical contrasts to other events in the preceding or following context, which in turn serve as discourse-structuring devices. Consider Example (15):

- (15) a. *When they finished building the bridge, they crossed it.*
 b. *When they finished the bridge, they crossed it.*

Strictly speaking, the use of the gerund *building* is uninformative in the first part of (15a) because it corresponds to the agentive quale of the complement *bridge*. However, the overt mention of building does serve a purpose in (15a), which is why it seems intuitively better than its counterpart with explicit mention of the finished event in (15b). By making it overt, the speaker contrasts the finished event BUILDING with the event CROSSING. Because the subordinate clause marks a temporal relation, this contrast is temporal in nature. Consequently, the overt mention of the finished event serves to establish a temporal contrast, ultimately marking discourse progression. In overtification contexts the inferred event is frequently a logical precondition for the next event described in the discourse (they were only able to cross the bridge because they had already finished building it).

Overtification changes things. Since the construction can now be used to refer to events that match default interpretations (e.g., *finish building the bridge*), it is no longer useful as a marker of informativity. This, we claim, paves the way for further processes of semantic change and grammaticalization. If a speaker uses the overt mention of a finished event in order to signal that this finished event is informative on the level of discourse information, the listener has to abandon the presupposition that the finished event is informative on the clause level in order to arrive at the speaker-intended meaning. In doing so, the APO principle might kick in. Listeners might abandon this presupposition altogether and start understanding the use of [FINISH + infinitive] as a device for marking discourse progression. We believe that this mechanism is what caused the temporalization of [FINISH + infinitive] constructions in Spanish. If the overtification of [*acabar* + *de* + infinitive] was a result of speakers marking the finished event as relevant to discourse progression, listeners might have reanalyzed the construction precisely in temporal terms, i.e., as expressing the anteriority of the finished event. If this is correct, the overtification of [*acabar* + *de* + infinitive] was a necessary precondition for its temporalization. This is the hypothesis that we explore in the remainder of this paper.

3. Data and analytical approach

We extracted all 1,962 occurrences of the verb *acabar* “finish” from a selection of 18 Spanish historiographical texts dating from the mid-13th century until the end of the 18th century (total number of tokens = 6,258,289). All of the historiographical texts can be classified as reliably dated, in that the editions are based on either original manuscripts or copies of the original manuscripts that were composed

no later than 50 years after the original (Fernández-Ordóñez 2006). Details about the source texts, including the abbreviations used in examples, are listed in the appendix (Table 4).

From these data, we eliminated all tokens of *acabar* in constructions that do not fall within the scope of our analysis. First, we eliminated all [*acabar* “finish” + *con* “with” + infinitive] constructions ($n = 64$), as well as other *acabar* constructions formed with prepositions other than *de*, such as [*acabar* + *a* + infinitive] ($n = 2$), [*acabar* + *en* + infinitive] ($n = 3$) and [*acabar* + *en* + noun] ($n = 1$). We also eliminated one occurrence of an [*acabar* + gerund] construction and one instance of an [*acabar* + past participle] construction. Lastly, we eliminated all *acabar* constructions in which the form was not a verb but clearly an adjective (as in e.g., *la començada et acabada iniuria* “the finished and ended insult”) because the use of an infinitive is impossible in such contexts ($n = 5$). The final corpus contains 1,885 tokens.

We eliminated these cases because the meanings of these other *acabar* constructions are very different from both lexical *acabar* constructions and [*acabar* + *de* + infinitive], and they do not fall within the envelope of variation. While most of these constructions are extremely infrequent, the [*acabar* + *con* + infinitive] construction deserves some attention. Its meaning can be roughly translated as “killing somebody”, as in, e.g., *Acabó el emperador con todos los de la casa de Tancredo y su parcialidad* “the emperor killed every member of the House of Tancredo and their allies”. The use of [*acabar* + *con* + infinitive] is infrequent in our corpus, becoming more popular in the 16th and 17th century (51 of 56 [*acabar* + *con* + infinitive] tokens are from texts in this period), only to decrease in usage frequency in the 18th century. Preliminary corpus searches in the 100 million word *Corpus del Español* (Davies 2002) confirm this observation on the basis of data from a larger text collection. Using the search string “[*acabar*] con [N]”, we obtained the following normalized frequencies in the *Corpus del Español* (Davies 2002), which we present in Table 1.

Table 1. Normalized frequency of [*acabar*] con [N] in the *Corpus del Español*

Period	Normalized frequency
13th century	0.74
14th century	1.87
15th century	0.86
16th century	2.23
17th century	2.83
18th century	1.12
19th century	0.93
20th century	1.10

4. FINISH constructions in Old Spanish

We now give an overview of the main uses of *acabar* constructions in Old Spanish and analyze the parameters that govern the alternation between *acabar* and [*acabar* + *de* + infinitive]. We describe the different constructional types in terms of three parameters: [+/-complement], [+/-transitive] and [+/-overt]. The first parameter, [+/-complement], refers to whether *acabar* has a complement at all (whether nominal or verbal). The second parameter, [+/-transitive], describes whether *acabar* has a nominal complement, and the third, [+/-overt], describes whether it has a verbal complement. The last two parameters therefore only apply to cases marked as [+complement].

First, *acabar* can appear without any complement [−complement]. The meaning of these tokens depends on the context. In the majority of cases, *acabar* has the meaning “end” (with inanimate subject referents) or “die” (with animate subject referents), as illustrated by Examples (16)–(17). However, *acabar* can also be used to express the meaning “finish”, if the finished event can be inferred from the preceding context (18). However, the type of inference realized in such examples differs fundamentally from the inference types realized on the basis of qualia relations. Whereas the reader of (18) had formed a concept of the finished event even before reading the *acabar* token, in qualia inference cases this concept is not yet present in his/her mind. Consequently, our account does not make predictions about this type of inference; rather, we believe that the use of cases such as (18) is likely to remain stable across time. Likewise, our account does not make predictions about the lexical uses of *acabar* illustrated in (16)–(17). This is why we exclude tokens coded as [−complement], such as (16)–(18), in our subsequent analysis (§ 5.2.1).

- (16) *E segund cuent-a ell Arçobispo don Rodrigo en*
 and after tell-PRS.3SG DET.DEF.M.SG Archbishop don Rodrigo in
esta laguna se acab-a este río
 DET.DEF.F.SG lagoon REFL finish-PRS.3SG DET.DEF.M.SG river
 “And Archbishop don Rodrigo tells us that this river ends in this lagoon”
 (EDE, 13th c.)
- (17) *E d'=estas razon-es ave-mos las prueba-s*
 and of=DET.DEF.F.PL reason-PL have-PRS.1PL DET.DEF.F.PL proof-PL
que Sem en Jerusalem muri-ó e acab-ó
 that Sem in Jerusalem die-PST.PFV.3SG and finish-PST.PFV.3SG
 “And these words are proof that Sem died in Jerusalem” (GE, 13th c.)

- (18) *D'=esta manera se razon-ó el*
 of=DET.DEF.F.SG way REFL reason-PST.PFV.3SG DET.DEF.M.SG
César ... e acab-ó él aquí
 Caesar and finish-PST.PFV.3SG DET.DEF.M.SG here
 "And these are the arguments that Caesar brought forth ... and at this point he
 stopped [bringing forth these arguments]" (GE, 13th c.)

In the domain of *acabar* cases with verbal and/or nominal complements, the following combinations of the relevant parameters are possible: [+complement, +transitive, –overt], [+complement, +transitive, +overt] and [+complement, –transitive, +overt].

The parameter constellation [+complement, +transitive, –overt] refers to cases in which *acabar* appears with a nominal complement but without a verbal one, e.g., *acabar la cena* "finish the meal". We categorized the ontology of the nominal complements, distinguishing complements that denote events or states in (19)–(20) and complements that denote artifacts in (21).

- (19) *e d'=esta manera acab-a-van aquellos*
 and of=DET.DEF.F.SG manner finish-THHEME-PST.IPFV.3PL DET.DEF.M.PL
tres sacerdote-s aquel sacrificio
 three priest-pl DET.DEF.M.SG sacrifice
 "and in this manner those three priests finished that sacrifice" (GE, 13th c.)
- (20) *e Yonito ... fnc-ó allí e pobl-ó con*
 and Yonito stay-PST.PFV.3SG there and populate-PST.PFV.3SG with
sus compañía-s, e en aquella tierra acab-o
 POSS.PL company-PL and in DET.DEF.F.SG land finish-PST.PFV.3SG
su vida
 POSS.SG life
 "And Yonito ... stayed there and populated the land with his people and on
 that land he lived until the end of his life" (GE, 13th c.)
- (21) *E desde ovo esto-s palacio-s*
 and after have.PST.PFV.3SG DET.DEF.M-PL palace-PL
acab-a-do-s sali-ó de cabo a andar por
 finish-THHEME-PTCP-PL leave-PST.PFV.3SG of end to walk about
el regno
 DET.DEF.M.SG kingdom
 "And when he had finished [building] these palaces, he finally left to walk about
 the kingdom" (GE, 13th c.)

Already in the earliest texts from the 13th century, tokens of the [*acabar* + *de* + infinitive] construction can be found. Although they usually involve a nominal

complement, resulting in the parameter combination [+complement, +transitive, +overt], e.g., *acabar de comer la cena* “finish eating the meal” (22), they sometimes also occur without a nominal complement, leading to the parameter combination [+complement, –transitive, +overt], e.g., *acabar de salir* “finish leaving” (23).

- (22) *Otrossí far-ás la fiesta de las tienda-s*
 furthermore make-FUT.2SG DET.DEF.F.SG party of DET.DEF.F.PL shop-PL
cuando acabar-edes de coger el pan e
 when finish-FUT.SBJ.2SG of get DET.DEF.M.SG bread and
el vino
 DET.DEF.M.SG wine
 “Furthermore you will have the Feast of Tabernacles when you finish getting the bread and the wine” (GE, 13th c.)
- (23) *e cuando acab-a-ron de salir los*
 and when finish-THHEME-PST.PFV.3PL of leave DEF.DET.M.PL
ebreo-s e fueron todo-s en la tierra...
 Hebrew-PL and be.PST.PFV.3PL all-PL in DET.DEF.F.SG country
 “And when the Hebrews had finished leaving and all of them were in the country...” (GE, 13th c.)

The uses of *acabar* in (19)–(23) can be described as aspectual in that *acabar* means “finish,” i.e., it picks out or focuses on the endpoint of a process. Interestingly however, there are also many examples in which *acabar* has to be translated as “bring about” or “accomplish”. These examples highlight the success of the agent in performing the act rather than the aspectual relation of an agent simply bringing a process to completion. This reading is particularly evident in cases like (24), in which the complement is an embedded clause headed by the complementizer *que* “that”. We can find the same reading for [*acabar* + *de* + infinitive] constructions (25). This use of [*acabar* + *de* + infinitive] has continued into Present Day Spanish, where uses such as (26) are possible.

- (24) *Promet-ía de acabar que la iglesia*
 promise-PST.IPF.3SG of finish that DET.DEF.F.SG church
concedie-se al rey ... los
 concede-PST.IPFV.SBJ.3SG to DET.DEF.M.SG king DET.DEF.M.PL
lugar-es y bien-es
 place-PL and good-PL
 “And he promised to make sure that the church concede the places and goods to the King” (ANA, 16th c.)

- (25) *e apenas acab-a-ron de soterrar so-s muerto-s*
 and barely finish-THEME-PST.PFV.3PL of bury POSS-PL dead-PL
 “And they barely managed to bury their dead” (GE, 13th c.)
- (26) *No acab-o de entender=lo*
 NEG finish-PRS.1SG of understand=it
 “I cannot understand it”

We do not find any tokens of [*acabar* + *de* + infinitive] with a clear anterior meaning, such as (27)–(28), until the 17th century. Apparent counterexamples that could be interpreted as anterior (like (29)–(30)) can typically also be interpreted as having the FINISH meaning. In other words, these are ‘unrestricted’ contexts, in Heine’s (2002) terms. Note that in (27)–(30), the difference between the recent past reading and the aspectual FINISH reading appears to coincide with a difference in the aspectual marking on *acabar* (imperfective in (27)–(28), perfective in (29)–(30)). This leads to the hypothesis that imperfective contexts were important for the eventual temporalization of the construction. We revisit this hypothesis in more detail in § 5.3 below.

- (27) *¿Cómo, señor? -dijo Cortés. No es posible que tan presto se haya-n hech-o. Dic-e: -Sí, so quickly refl have.PRS.SBJ-PL make.PTCP-M.SG say-PRS.3SG Yes que en la costa est-án once, que agora me that in DET.DEF.F.SG coast be-PRS.3PL eleven that now to.me acab-a-n de dar el aviso*
 finish-THEME-PRS.3.PL of give DET.DEF.M.SG notice
 “What, sir?, asked Cortés. It’s not possible for them to have been made that quickly. [But] he says: Yes, on the coast there are eleven of them, [my people] just gave me the news” (VYH, 17th c.)
- (28) *y sub-ieron a lo alto de la casa, and go.up-pst.pfv.3pl to DET.DEF.M.SG high of DET.DEF.F.SG house donde el duque est-a-ba solo, que where DET.DEF.M.SG count be-THEME-PST.IPFV.3SG alone since acab-a-ba de comer, y su-s criado-s se finish-THEME-PST.IPFV.3SG of eat and poss-PL servant-PL REFL hab-ían ido*
 have-PST.IPFV.3PL go.PTCP.M.SG
 “... and they went up to the upper level of the house, where the count was alone, for he had just eaten and his servants had left” (VYH, 17th c.)

- (29) *e acab-ó de estar los cuarenta día-s e*
 and finish-PST.PFV.3SG of be DET.DEF.M.PL forty day-PL and
las cuarenta noche-s con él en el mont
 DET.DEF.F.PL forty night-PL with him in DET.DEF.M.SG mountain
 “And he finished staying forty days and forty nights with him on the mountain”
 (GE, 13th c.)

- (30) *La tercera [fiesta me far-edes] cuando*
 DET.DEF.F.SG third party PRO.DAT make-PRS.2PL when
acab-a-des de coger todo-s vuestro-s fruto-s de
 finish-THHEME-PRS.2PL of pick all-PL POSS-PL fruit-pl of
la tierra
 DET.DEF.F.SG land
 “You will have the third party for me when you finish harvesting all the fruits
 on your land”
 (GE, 13th c.)

Let us now consider the factors that govern the alternation between *acabar* without an infinitive [–overt] and [*acabar* + *de* + infinitive] [+overt] in Old Spanish. The data suggest that the [*acabar* + *de* + infinitive] construction is used in contexts in which the simple *acabar* construction is not informative enough. Building on § 2, this mechanism can be observed most easily in transitive contexts. The transitive *acabar* construction has a preferred interpretation that depends on the type of referent of the complement of *acabar*. This interpretation necessarily involves highly stereotypical events. For instance, in (31) below, the preferred interpretation of *acabo la torre dalfaro* is “finish (building) the tower”. Although the reader might draw more specific inferences about which part of the construction process was finished, the transitive *acabar* construction cannot explicitly express this specification.

- (31) *e acab-ó la torre dal=faro que*
 and finish-PST.PFV.3SG DET.DEF.F.SG tower of.the=light.house that
començ-a-ra hercules
 begin-THHEME-PST.IPFV.SBJ.3SG Hercules
 “And he finished (building) the tower of the light house than Hercules had
 begun (building)”
 (EDE, 13th c.)

In order to make explicit the type of event that led to the eventual result, Old Spanish authors employ the [*acabar* + *de* + infinitive] construction. In particular, [*acabar* + *de* + infinitive] is typically used with infinitives that denote events that are UNEXPECTED – even mildly so – in combination with a particular complement and which are therefore not licensed by the preferred interpretation of the transitive *acabar* construction. Consider the representative examples in (32)–(33).

- (32) *aquel* *anno* *acab-o* *de cercar* *toda la*
 DET.DEF.M.SG year finish-PST.PFV.3SG of surround all DET.DEF.F.SG
uilla *de Roma* *de muro-s* *muy fuerte-s*
 city of Rome of wall-PL very strong-PL
 “That year he finished surrounding the entire city of Rome with very strong walls”
 (EDE, 13th c.)
- (33) *Otrossí* *far-ás* *la* *fiesta de las* *tienda-s*
 furthermore make-FUT.2SG DET.DEF.F.SG party of DET.DEF.F.PL shop-PL
cuando acabar-edes *de coger el* *pan e*
 when finish-FUT.SBJ.2SG of get DET.DEF.M.SG bread and
el *vino*
 DET.DEF.M.SG wine
 “Furthermore you will have the Feast of Tabernacles when you finish getting the bread and the wine”
 (GE, 13th c.)

In all of these sentences, the use of [*acabar* + *de* + infinitive] is licensed by the fact that the finished event is informative, i.e., differs from the default interpretation. If the author had used the transitive *acabar* construction, these tokens would have to be interpreted differently. The preferred interpretation of transitive *acabar* with a complement that refers to a building or a city is that what was finished was the process of construction of that building or city (agentive quale). In (32), however, this preferred interpretation does not apply; what was finished was the process of besieging the city. In (33) the preferred interpretation of “finishing the bread and the wine” would be “finishing eating the bread and drinking the wine” (telic quale). This interpretation would however not correspond to the speaker-intended interpretation, which is why the finished event GET is made explicit.

So far, it appears that our description of the distribution of Old Spanish *acabar* tokens matches the predictions about the distribution of the overt expression of the finished event in § 2; when the finished event is identical to the preferred interpretation, the infinitive is not expressed. On the other hand, when the finished event differs from the preferred interpretation, the infinitive is expressed.

However, a closer look at the data suggests that in certain contexts, the degree of informativity of the finished event ceases to be a reliable predictor of the alternation between [*acabar* + DO] and [*acabar* + *de* + transitive infinitive]. Consider Examples (34)–(35) below. In all of these examples, the infinitive is expressed even though, strictly speaking, it is uninformative in these sentences. Given that the agentive quale of the concept TENT is ERECTING THE TENT, it would have been possible for the writer to use a simple *acabó la tienda* “he finished the tent” in order to express the same meaning as in (34). Likewise, since the agentive quale of the

concept WORD(s) is SAYING THE WORD(s), the use of the infinitive *dezir* “say” seems superfluous in (35).

- (34) *Cuando Moisés acab-ó la tienda de fazer e*
 when Moses finish-PST.PFV.3SG DET.DEF.F.SG tent of make and
la alç-ó ... ofrec-ie-ron ... muchas ofrendas
 it raise-PST.PFV.3SG offer-theme-PST.PFV.3PL many sacrifices
 “When Moses had finished erecting the tent and raised it ..., they ... offered
 many sacrifices (GE, 13th c.)
- (35) *E desde les acab-ó de dezir estas razones*
 and after them finish-PST.PFV.3SG of say DET.DEF.F.PL words
demand-ó=les muy afincadamiente
 ask-PST.PFV.3SG=them very humbly
 “And when he had finished speaking these words, he asked them very hum-
 bly...” (GE, 13th c.)

Given that using the simple *acabar* construction in (34)–(35) would have led to exactly the same inference regarding the type of finished event, in such contexts the use of the [*acabar* + *de* + infinitive] is no longer motivated by greater informativity. In other words, tokens such as (34)–(35) are the result of a process of OVERTIFICATION; the authors of Old Spanish texts started making finished events explicit even if they were uninformative. However, the fact that the finished events are uninformative in these contexts does not mean their overt mention does not serve a function in discourse. By making the finished event explicit, the writer establishes a contrast between the finished event and the following event in the narration (in (34), “erecting the tent” – “offering sacrifices”; in (35), “speaking these words” – “asking them humbly”).

Crucially, the possibility of establishing this kind of contrast derives from the fact that the [*acabar* + *de* + infinitive] tokens in (34)–(35) are found in subordinate clauses expressing anteriority. Since these contexts mark a temporal succession between the event in the subordinate clause and the event in the main clause, the contrast between the finished event and the subsequent event will be interpreted as a temporal contrast. By making the finished event overt, the speaker also makes explicit the temporal chain of events. Furthermore, since constructions marking a temporal sequence of events are often enriched by implicatures involving a stronger logical connection between two events, this strategy can be used to mark the particular relevance of the finished event A for the realization of the subsequent event B. For example, *After they finished painting the bridge, they crossed it* may implicate that the event of painting the bridge not only preceded the event of crossing the bridge, but somehow made it possible or licit. In the case of artifacts, this inference

is very strong, since an artifact often has to be brought into existence before it can be used. As such, in the sentence *After they finished (building) the bridge, they crossed it*, it is the anterior event that makes the subsequent event possible. Generalizing across the range of possible inferences about the logical relation between the two events – from simple temporal succession to facilitation to a strong causal relation – we make the weak claim that the coded meaning of an anterior clause construction is to mark the anterior event as particularly relevant to the realization of the subsequent event.

In summary, our description of the Old Spanish data has shown that the use of *acabar* constructions with nominal or verbal complements is governed by two principles. The first is informativity. While *acabar* constructions without any complement do not fall into the envelope of variation, [*acabar* + DO] constructions receive an interpretation in line with the qualia structure of the concept expressed by the nominal complement. If the writer intends an interpretation that differs from the default interpretation based on the qualia structure of the concept expressed by the nominal complement, the [*acabar* + *de* + infinitive] construction is used. However, making the finished event explicit can be used not only to mark the finished event as informative but also to mark the finished event as relevant to the subsequent event in the narration. The next section demonstrates how the frequent discourse relevance marked the starting point of both the overtification and the temporalization of [*acabar* + *de* + infinitive].

5. The overtification and temporalization of [*acabar* + *de* + infinitive]

Having established the basic principle of the opposition between non-infinitival *acabar* and [*acabar* + *de* + infinitive] in the Old Spanish data, we can now move on to consider the diachronic dimension of the alternation. In particular, we argue that the Spanish FINISH constructions described above underwent a process of OVERTIFICATION, i.e., a process by which meanings previously communicated by means of inferential processes came to be expressed explicitly. After establishing a periodization of the overall change (§ 5.1), we go on to describe the overtification process (§ 5.2) and the temporalization process (§ 5.3).

5.1 Periodization

Figure 1 illustrates the development of the absolute and relative frequency of use of *acabar* constructions in our corpus. In Old Spanish, the use of *acabar* without a verbal complement was dominant. After the beginning of the 15th century, however,

the usage frequency of [*acabar* + *de* + infinitive] constructions started to increase dramatically. This increase was much stronger for [*acabar* + *de* + transitive infinitive] than for [*acabar* + *de* + intransitive infinitive], and it coincided with a relative reduction in the usage frequency of [*acabar* + DO] constructions. In contrast, only a slight and inconsistent decrease in the use of *acabar* without any complement can be discerned. Consequently, the expansion of [*acabar* + *de* + infinitive] constructions can be characterized to a large degree as a replacement process of [*acabar* + DO] by [*acabar* + transitive infinitive]. This, essentially, is oververification at work. We take this increase in the usage frequency of [*acabar* + *de* + infinitive] as an indicator of its grammaticalization after the 15th century, since increases in usage frequency are usually considered one of the hallmarks of grammaticalization (Hopper & Traugott 2003: 126–130).

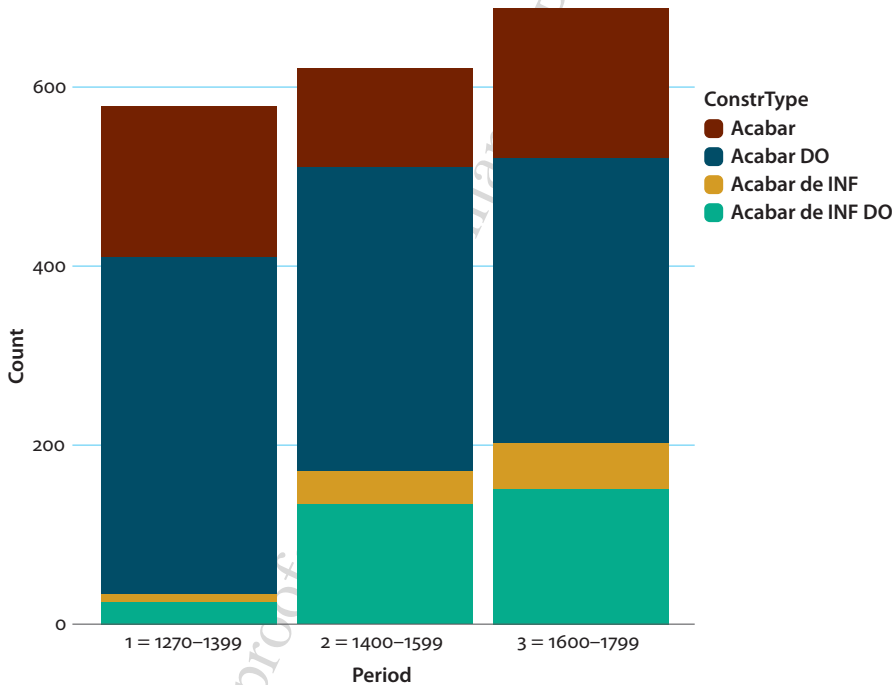


Figure 1. Development of usage frequency of all *acabar* constructions

5.2 Overtification

We now use an inferential statistical methodology to demonstrate that the expansion of the use of [*acabar* + *de* + infinitive] constructions documented in § 5.1 was a result of the rhetorical strategy of writers to use [*acabar* + *de* + infinitive]

constructions in contexts in which the finished event was not informative in order to mark its relevance to a subsequent event. In other words, we argue that the relevance-marking function was responsible for the rise in the overall frequency of [*acabar + de + infinitive*] constructions in the corpus. However, there are certain usage contexts in which this rhetorical strategy has less of a functional ‘punch’, which leads to the prediction that the use of [*acabar + de + infinitive*] will increase at a slower rate in these contexts.

We are referring to the difference between semantic types of nominal complements already described in § 2. We have argued that the finished event is of overall higher informativity with complements referring to artifacts than with complements referring to events or states because the agentive quale of event/state complements is identical to its product (cf. BUILDING THE BRIDGE VS. SINGING THE SONG). This asymmetry has important repercussions for the discourse functions of [*acabar + de + infinitive*] with artifact complements and with event/state complements. In particular, it suggests that the functional ‘punch’ of using [*acabar + de + infinitive*] as a marker of (a) the unexpectedness of the event or (b) the relevance of the anterior event to the subsequent event is greater for FINISH constructions with artifact complements than with event/state complements. Given that in sentences with event/state complements, making the finished event overt is typically of overall lower informativity than in sentences with artifact complements, the opposition between an informative and an uninformative use of the infinitive is much less expressive in these contexts. In other words, sentences with event/state complements are less suited for marking the relevance of the finished event to a subsequent event than sentences with artifact complements.

A similar argument can be made for [*acabar + de + infinitive*] constructions without a nominal complement. Because these constructions do not have a counterpart with a nominal complement, the use of the infinitive is always informative in sentences such as *acabaron de llegar* ‘they finished arriving’. Since there is no opposition between informative and uninformative uses of the infinitive in these contexts, [*acabar + de + intransitive infinitive*] constructions cannot be used to mark the relevance of the finished event in the same way as [*acabar + de + transitive infinitive*] constructions.

If, as we claim, the relevance use of [*acabar + de + infinitive*] was crucial to its overall expansion, and both [*acabar + de + intransitive infinitive*] constructions and [*acabar + de + transitive infinitive*] constructions with event/state complements are less suited for the relevance-marking function than [*acabar + de + transitive infinitive*] constructions with artifact complements, these considerations lead to two predictions regarding the historical development of [*acabar + de + infinitive*]. First, we would expect an earlier rise in the frequency of [*acabar + de + transitive infinitive*] constructions with artifact complements than of [*acabar + de +*

intransitive infinitive]. Second, we would expect an earlier rise in the frequency of [*acabar* + *de* + transitive infinitive] constructions with artifact complements than with event/state complements.

Our description of the changes in the distribution of [*acabar* + *de* + infinitive] in § 5.1 (see Figure 1) has already confirmed the first prediction. Specifically, [*acabar* + *de* + intransitive infinitive] constructions were much less frequent in Old Spanish than [*acabar* + *de* + transitive infinitive] constructions and the use of [*acabar* + *de* + intransitive infinitive] constructions increased over time at a slower rate.

In order to investigate the second prediction, we conducted an inferential statistical analysis over our data. We describe the model selection process and the results in the remainder of this section.

5.2.1 Model selection process

In order to conduct the regression analysis, we eliminated all *acabar* tokens without a nominal or verbal complement, as well as all passive occurrences of *acabar*, leading to a total of $n = 743$. The reasons for this selection of the data were that (a) *acabar* tokens without a nominal or verbal complement have either a lexical meaning due to which a use of [*acabar* + *de* + infinitive] is extremely unlikely (see (16)–(18)) and that (b) consequently, [*acabar* + *de* + intransitive infinitive] tokens (e.g. *acabar de salir* “finish leaving”) differ from [*acabar* + *de* + transitive infinitive] tokens (e.g., *acabar de construir la casa* “finish building the house”) in that there are no counterparts without complements for [*acabar* + *de* + intransitive infinitive]. In other words, whereas it is possible to infer the finished event BUILDING from the sentence *They finished the house* by virtue of the complement *house*, inferring the finished event RUNNING from *They finished* is only possible if the inference is based on anaphora, representing a qualitatively different type of inference.

We coded each token with a nominal complement in our data ($n = 743$) according to whether or not the finished event was made overt by adding an infinitive. In addition, we established a variable OVERTIFICATION, referring to whether or not, in the case that the finished event was made overt, the finished event was informative or uninformative. The variable OVERTIFICATION consequently received the three levels ‘NoInf’, ‘InformativeInf’ and ‘UninformativeInf’. We illustrate this coding using the examples in (36).³

3. Informativity is a scalar property rather than a discrete one, and while in finish preparing the meal, the event coded by the infinitive is more informative than that in finish eating the meal, both are less informative than the finished event in finish instagramming the meal. However, our findings indicate that anything but the most expected or stereotypical event triggered an explicit infinitive in Old Spanish. Therefore, we feel confident in using the simple typology described here.

- (36) a. *Acabaron la misa* [NoInf]
 “they finished the mass”
 b. *Acabaron de planificar la misa* [InformativeInf]
 “they finished planning the mass”
 c. *Acabaron de decir la misa* [UninformativeInf]
 “they finished saying the mass”

We then conducted a multinomial logistic regression analysis in R (R Development Core Team 2015) using the package *nnet* (Ripley et al. 2015). The regression analysis measured the impact of a number of predictor variables on the likelihood that (a) an infinitive is used and (b) whether the finished event thus expressed is informative (dependent variable OVERTIFICATION). The exact formula of the resulting regression model is given in (37). Table 2 gives an overview of the predictor variables in the regression model. The full results from the model are available in the appendix (Table 5).

(37) OVERTIFICATION ~ YEAR * REFCOMPL * SUBORDINATEDAFTER

Table 2. Overview of predictor variables in the multinomial logistic regression model

Variable name	Short description	Levels
YEAR	(Approximate) date of source text	(Numerical)
REFCOMPL	Semantic type of the complement	Artifact State/event
SUBORDINATION_ AFTER	Whether or not <i>acabar</i> occurs in a temporal subordinate clause expressing anteriority, as in (34)–(35)	False True

5.2.2 Description and discussion of results

All of the predictor variables, as well as their interaction, turned out to have a statistically significant effect on the dependent variable OVERTIFICATION. We illustrate the result of the regression model using the effect plot in Figure 2.

First, the results of the regression model suggest a correlation between overtification and the use of [*acabar* + *de* + infinitive] in temporal subordinate clauses that indicate the anteriority of the event (measured by the variable SUBORDINATION_AFTER). Both in [*acabar* + *de* + transitive infinitive] tokens in which the complement refers to an artifact (plots on the left) and [*acabar* + *de* + transitive infinitive] tokens in which the complement refers to a state or event (plots on the right), there is a higher probability of the use of an uninformative infinitive in temporal subordinate clauses that indicate the anteriority of the event.

Second, the regression analysis confirmed the result from the descriptive analysis that the use of [*acabar* + *de* + infinitive] spread later to transitive sentences with

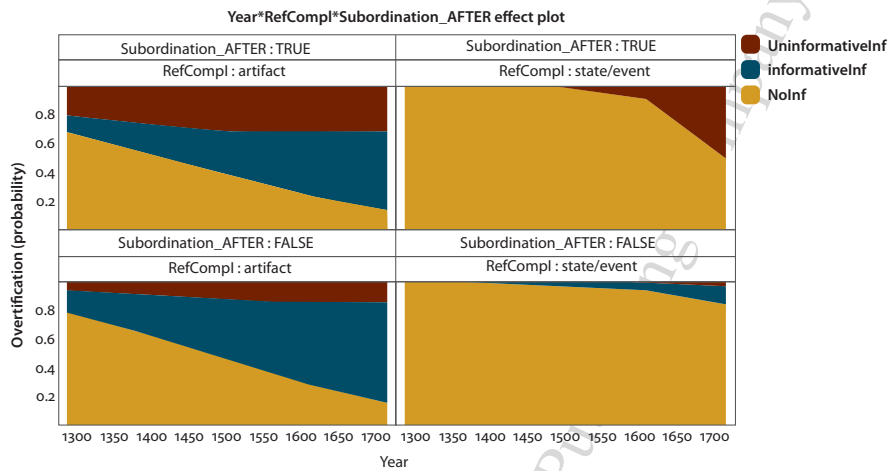


Figure 2. Effect plot of the YEAR * REFCOMPL * SUBORDINATION_AFTER interaction in the multinomial logistic regression model

a complement that refers to a state or event than to those with a complement that refers to an artifact.

Third, the analysis confirmed our hypothesis that the increase in the usage frequency of [*acabar* + *de* + infinitive] was crucially related to the rhetorical strategy of making uninformative infinitives overt. Both in [*acabar* + *de* + transitive infinitive] tokens in which the complement refers to an artifact (plots on the left) and [*acabar* + *de* + transitive infinitive] tokens in which the complement refers to a state or event (plots on the right), uninformative uses were at the vanguard of the expansion of [*acabar* + *de* + infinitive]. However, this correlation is much stronger for *acabar* tokens found in temporal subordinate clauses that indicate the anteriority of the event than for other syntactic constellations. In other words, these contexts served as bridging contexts for the later spread of [*acabar* + *de* + infinitive] to informative verbs. We consider this finding crucial evidence for the assumption that the overtification of [*acabar* + *de* + infinitive] served as the precondition for its later temporalization, a hypothesis which we elaborate on in the following section.

5.3 Temporalization

We believe that the overtification process illustrated in the last section holds the key to the question of how [*acabar* + *de* + infinitive] came to be used as an anterior. The analysis has shown that the overtification of [*acabar* + *de* + infinitive] was linked to contexts in which the finished event was marked as especially relevant to a subsequent event such as (38) below. In our description of how [*acabar* + *de* +

infinitive] acquired temporal semantics, we make use of the Reichenbachian system of temporal logics (Reichenbach 1947). Reichenbach distinguishes between EVENT TIME (E), SPEECH TIME (S) and REFERENCE TIME (R), the interplay of which is described by the coincidence relation (“;”) and the precedence relation (“-”). A sentence is uttered at S. Events narrated in that sentence take place at E. However, while in present anteriors like *Mary has eaten* E and R coincide, in past anteriors they do not. For instance, in (38), the *acabó de decir esto* is described as being anterior to the event at R, *dijeron que era verdad*. In Reichenbachian terms, it receives the parameter combination E-R-S, whereas *Mary has eaten* receives E-R,S.

- (38) *Luego que el rey de Mallorca acab-ó de*
 After that DET.DEF.M.3.SG King of Mallorca finish-PST.PFV.3SG of
decir esto, ... dijeron que era verdad
 say this say.PST.PFV.3PL that be.PST.IPFV.3SG truth
 “When the King of Mallorca had finished saying this, they said that it was true”
 (ANA, 16th c.)

We use Eckardt’s (2009) APO principle, described in § 2, to account for the temporalization of [*acabar + de + infinitive*] in contexts such as (38). When innovative speakers used [*acabar + de + infinitive*] in contexts that did not license its original use, the listeners of the construction were not able to accommodate the presupposition that the proposition is highly informative (after all, the speaker could have used the simple *acabar* construction to express the same proposition), resulting in pragmatic overload. In order to avoid this pragmatic overload, the listeners were coerced into reanalyzing the meaning of the construction and took the context as the basis for this reanalysis. Because [*acabar + de + infinitive*] was frequently used in relative past contexts (E-R-S), such as (38), in order to mark the relevance of the finished event to the subsequent event, listeners reanalyzed the construction as a marker of relative past, i.e., an anterior. In an anterior temporal clause, the finished event is before the reference time of state of affairs expressed in the main clause. In a main clause, however, the finished event could easily be interpreted as having taken place before speech time.

We take this reanalysis as an instantiation of the traditional functionalist idea that grammaticalization is ultimately the transfer of context to code. In a way, the scenario proposed here motivates the assumptions behind Detges & Waltereit’s (2002) Principle of Reference, discussed in § 2, but adds a twist: the listener is guided to the new interpretation by the interaction of the semantics of the construction and the syntactic context, as well as an overarching principle of relevance.

It is noteworthy that the connection between relative past contexts and anterior readings has also been shown for other languages. For instance, Bybee et al. (1994: 72) argue in their discussion of FINISH anteriors in Palaung that “the clearest

examples of anterior uses of the *hwō-i* [meaning “finish”] are relational ones in which an anterior in one clause signals a situation prior to and relevant to the situation in the next clause,” as in (39).

- (39) *mī hwō-i hōm yō pōm vēng hā ō*
 2.SG finish eat EMP rice return place this
 “Come after you have eaten” (Bybee et al. 1994: 72)

Returning to the case at hand, the main question now becomes how to empirically demonstrate the relevance of our idea that [*acabar* + *de* + infinitive] started acquiring an anterior reading first in subordinate clauses expressing anteriority. In the following, we argue that perfectivity can be used as a proxy for the possibility of a temporal reading of [*acabar* + *de* + infinitive] constructions. To explain this, consider Examples (40)–(42) from Present Day Spanish, taken from the 2 billion webpage corpus in the *Corpus del Español* (Davies 2015–2016).

- (40) *Hola, bueno yo acab-o de leer el blog*
 Hi well I finish-PRS.1SG of read DET.DEF.M.3.SG blog
 “Hi, well, I just finished reading the blog”
- (41) *Durante la manifestación me vino a la cabeza el libr-ito, que acab-a-ba de leer, de Thomas Merton Gandhi y la no-violencia*
 during DET.DEF.F.3.SG demonstration REFL come.PST.PFV.3SG to
 DET.DEF.F.3.SG head DET.DEF.M.3.SG book-DIM that
 finish-theme-PST.IPFV.1SG of read of Thomas Merton Gandhi and
 DET.DEF.F.3.SG non-violence
 “During the demonstration I suddenly had to think of the little book about Thomas Merton Gandhi and the non-violence, which I had just read”
- (42) *...ya embarc-a-do en la aventura lo acab-é de leer*
 already embark-THHEME-PTCP-M-SG in DET.DEF.F.3.SG adventure it
 finish-PST.PFV.1SG of read
 “I finished reading it when I had already embarked on the adventure”

Whereas the imperfective cases (40)–(41) clearly express an anterior reading, the perfective case (42) receives a completive reading. This difference is due to the well-known fact that in Romance languages, perfectivity has an important influence on the discourse functions of tense constructions (Weinrich 2001 [1964]; Vet 2005; Becker 2010). Given that the perfective past constructions in (Peninsular) Spanish are typically associated with simple past reference, in neutral contexts they are not

well suited to expressing past or current relevance.⁴ By using perfective morphology, the speaker presents the finished event as remote and, consequently, relatively unimportant for the state of affairs at R. In contrast, present and imperfective past constructions are not necessarily presented as remote. This is due to the fact that in contrast to perfective tenses, imperfective tenses do not specify the event time (Becker 2010: 83–86). Rather, they present the event as unbounded. The use of imperfective tense implies that E started happening before R and ended after R. For instance, the sentence *Hier Pierre travaillait entre 12 heures et 13 heures* ‘Yesterday, Pierre worked between 12 o’clock and 13 o’clock’ is true if there is a reference interval (12:00–13:00) that is part of an event interval in which Pierre was working (Becker 2010: 85). Because of this unboundedness, it is easier to use imperfective tenses than perfective tenses to mark an event as relevant to a subsequent event in discourse.

Consider, for instance, (41) above. By using the imperfective *acababa de leer*, the writer implicates that he finished reading the book not long before R. This suggests that the finished event is relevant to the action in the main clause. Indeed, the event of recalling the book is contingent on the fact that the subject referent finished reading the book only a little while ago. The use of perfective morphology (*acabó de leer* ‘finished writing’) seems infelicitous in this context because it would present the event as remote and consequently unlikely to have been of relevance to the main clause action of remembering it.

We can see clear quantitative reflexes of the correlation between imperfectivity and temporalization in the *Corpus del Español* (see Table 3). The use of [*acabar* + *de* + infinitive] in Present Day Spanish is over 100 times more frequent in the present tense or the imperfective past tense than in the perfective past tense. This suggests that [*acabar* + *de* + infinitive] tokens expressing recent past, such as (40)–(41), are much more frequent in Present Day Spanish than [*acabar* + *de* + infinitive]

4. Note, however, that in many Latin American dialects of Spanish it is possible to use simple past constructions to express present relevance. For instance, in Mexican Spanish it is quite possible to say *Hoy compré manzanas* ‘Today I bought apples’, a meaning for which we would have to use the present anterior in most Peninsular dialects. We would consequently expect differences in the use of [*acabar* + *de* + infinitive] in Latin American and Peninsular Spanish dialects and particularly a lower use of [*acabar* + *de* + infinitive] in Latin American use. A preliminary corpus study in the web pages corpus of the *Corpus del Español* (Davies 2015–2016) confirms this prediction. There is a negative correlation of –0.63 between the frequency with which Present Day Spanish dialects use simple past forms and the [*acabar* + *de* + infinitive] construction. In other words, dialects in which the use of the simple past is particularly widespread (in our data, Argentinian, Bolivian, Uruguayan and Paraguayan Spanish) avoid the use of [*acabar* + *de* + infinitive]. We leave a more detailed exploration to future studies.

tokens expressing that the event was finished, such as (42). In other words, the main use of Present Day Spanish [*acabar + de + infinitive*] is that of an anterior.

Table 3. Usage frequency of [*acabar + de + infinitive*] in Present Day Spanish (2013–2014) by perfectivity in the web pages corpus of the Corpus del Español

SearchPattern	Tense	<i>n acabar de INF</i>	<i>n all tense constructions</i>	<i>n acabar de INF, normalized by n all tense constructions</i>
[acabar]_VIP* de _VR*	Present	68239	72452301	941.85
[acabar]_VII* de _VR*	Imperfective past	8967	7965312	1125.76
[acabar]_VIS* de _VR*	Perfective past	1218	14373685	84.74

In line with these considerations, we can use perfectivity as an indicator for the temporalization of [*acabar + de + infinitive*]. Note that the great majority of [*acabar + de + infinitive*] examples that we have discussed until now are marked for perfective past tense. It is only after the 15th century that we start finding more imperfective tokens of [*acabar + de + infinitive*], such as (43)–(44).

- (43)

acab-a-ndo

de decir

misa ... vi

finish-THEME-PROG of say mass see.PST.PFV.1SG

una

visión

DET.INDEF.F.SG

vision

“When I had [just] finished saying mass ..., I had a vision” (ANA, 16th c.)
- (44)

Cuando acab-a-ba

España de echar de sí

when finish-THEME-PST.IPFV.3SG Spain of throw of REFL

el

imperio de los

moro-s

africano-s...

DET.DEF.M.SG

rule

of

DET.DEF.M.PL

moor-PL

African-PL

era

el

príncipe don Juan, que ... mur-ió ...

be.PST.IPFV.3SG

DET.DEF.M.SG

prince

don Juan

who

die-PST.PFV.3SG

en Salamanca, año 1497

in

Salamanca

year

1497

“When Spain had [just] finished freeing itself from the rule of the African moors, the prince was don Juan, who died in Salamanca, in 1497” (VYH, 17th c.)

Figure 3 below demonstrates that over time, the frequency of [*acabar + de + infinitive*] constructions increased in imperfective contexts such as (43)–(44) relative to perfective contexts. Consequently, it suggests that over time, [*acabar + de + infinitive*] started being reinterpreted as a marker of recent past.

A second way of illustrating the temporalization of [*acabar + de + infinitive*] is to consider the syntactic contexts typically associated with the construction.

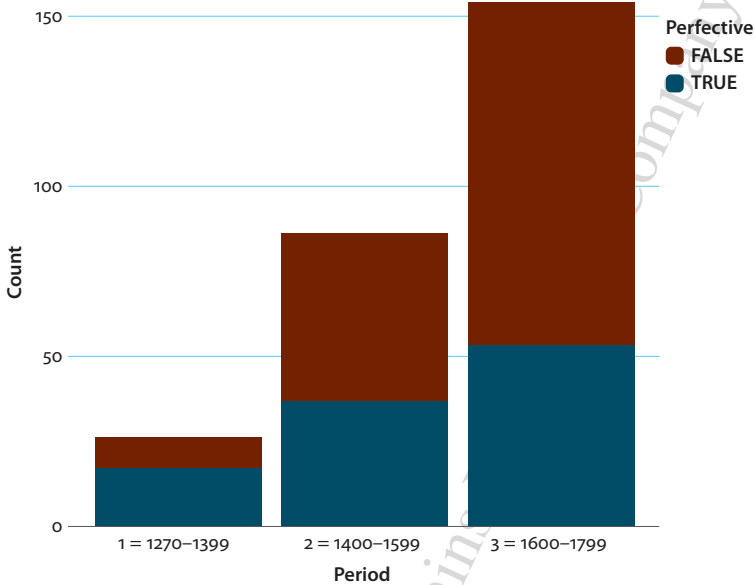


Figure 3. Development of [acabar + de + infinitive] constructions by perfectivity

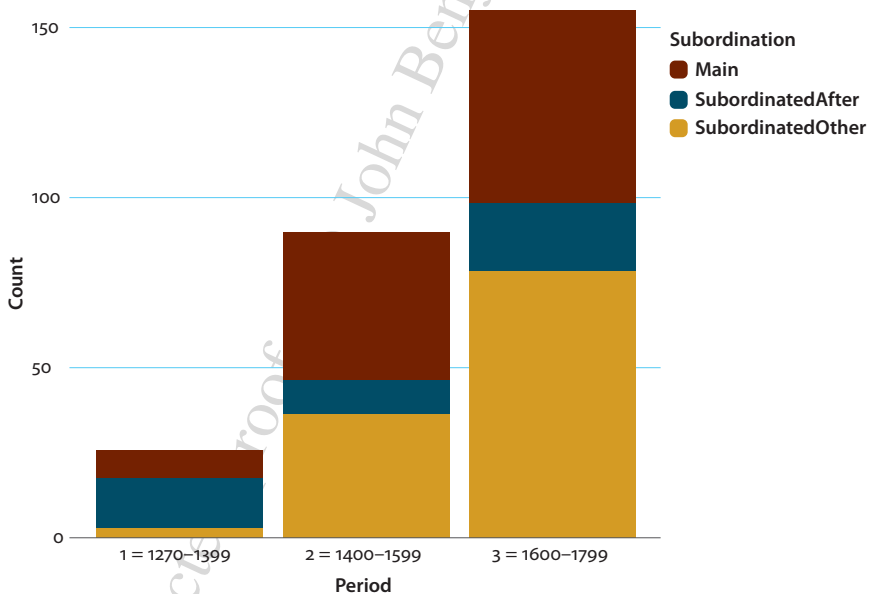


Figure 4. Development of [acabar + de + infinitive] constructions by syntactic context

Figure 4 illustrates the development of the relative frequencies of use of [acabar + de + infinitive] by syntactic context. It demonstrates that before the 15th century, a

majority of the [*acabar + de + infinitive*] tokens occurred in relative past contexts. Over time, however, the use of [*acabar + de + infinitive*] expanded to main clauses and other types of subordinate clauses. This suggests that the use of the construction as a marker of recent past was no longer bound to these contexts, which in turn points to a listener-based reanalysis of the construction.

Although these findings may be considered an epiphenomenon of the reinterpretation of [*acabar + de + infinitive*] in terms of the relevance of the event to R or S, it does not yet prove that there was a connection between the process of overtification and the temporalization of [*acabar + de + infinitive*]. Our analysis predicts that because the overtification of [*acabar + de + infinitive*] was linked to relative past contexts, we would expect the decrease of perfectivity of [*acabar + de + infinitive*] constructions to be stronger in these contexts than in other syntactic contexts.

5.3.1 Model selection process

To evaluate this prediction, we calculated a binary logistic regression model in R over the dependent variable PERFECTIVITY, with the levels 'False' and 'True'. As predictors, we included the variables YEAR, REFCOMPL, SUBORDINATION_AFTER, as well as the interaction YEAR : SUBORDINATION_AFTER (see Table 2 in § 5.2.1). The formula of the resulting regression model is given in (45), its full results specified in the appendix (Table 6).

$$(45) \text{ PERFECTIVITY} \sim \text{YEAR} + \text{REFCOMPL} + \text{SUBORDINATION_AFTER} + \text{YEAR} : \text{SUBORDINATION_AFTER}$$

5.3.2 Description and discussion of results

All of the effects included in the regression model reached statistical significance. In particular, however, our model confirmed the hypothesis that there is a correlation between (im)perfectivity and relative past contexts in the development of [*acabar + de + infinitive*]. Figure 5 illustrates this finding. In relative past contexts in the earliest texts, the probability that [*acabar + de + infinitive*] is used in verb forms with perfective morphology is much higher (about 80%) than its probability of use in verb forms with imperfective morphology (about 20%). The opposite is the case for contexts marked as [SUBORDINATION_AFTER = False], such as main clauses and other types of subordinate clauses. However, this situation changed dramatically over time. In particular, the probability for [*acabar + de + infinitive*] to be used in perfective tenses was inverted over time; in our 18th century corpus, [*acabar + de + infinitive*] has a probability of about 20% to occur with perfective

morphology and about 80% to occur with imperfective morphology (cf. the red dotted line in Figure 5). In contrast, the likelihood for [*acabar + de + infinitive*] to be used with imperfective morphology actually decreased in main clauses and other types of subordinate clauses, increasing instead with perfective morphology (cf. the black solid line in Figure 5).

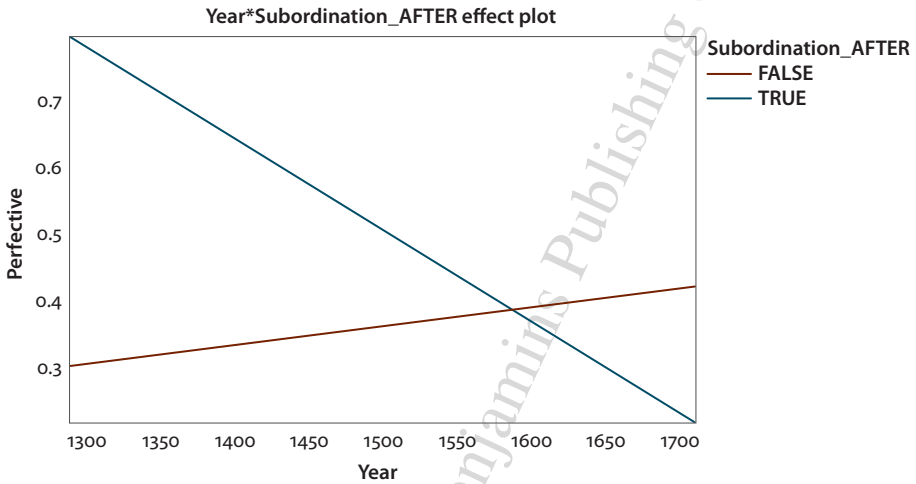


Figure 5. Effect plot of the interaction YEAR : SUBORDINATION_AFTER in the regression model with the dependent variable PERFECTIVITY

This finding suggests that grammaticalization of [*acabar + de + infinitive*] to an anterior was strongly related to its use in relative past contexts. In § 5.2, we demonstrated that the Old Spanish writers were most likely to express an uninformative event overtly in relative past contexts, i.e., subordinate clauses expressing anteriority. The results from this section suggest that the trend towards a greater use of [*acabar + de + infinitive*] with imperfective morphology also crucially depended on these relative past contexts and consequently that it was the rhetorical use of [*acabar + de + infinitive*] as a marker of relevance that led to the reanalysis of the construction as an anterior.

6. Conclusions

We set out to answer questions that have rarely been asked: how do lexical verbs acquire verbal complements in the first place, and how does this process interact with the precise ways in which aspectual and temporal meanings develop out of earlier lexical meanings? We developed a pragmatic model based on existing claims

about semantic change and grammaticalization that enabled us to articulate clear predictions about the usage contexts in which change should occur. Specifically, the model predicted an early distribution of FINISH + direct object when the inferred event variable of the unsaturated verb is the default interpretation of a given verb + direct object collocation (e.g., *finish the pasta*), versus an explicit verbal complement when the finished event differs from the default interpretation (e.g., *finish instagramming the pasta*). In other words, overt verbal complements were expected when the finished event was relatively informative. This led to a second prediction, i.e., speakers/writers would extend the use of the [*acabar* + *de* + infinitive] construction for rhetorical and interactive purposes, in usage contexts that previously did not license the use of the construction. We expected precisely these usage contexts to be relevant to the subsequent temporalization of the construction.

Both of these predictions were borne out by a corpus study of Spanish texts from the 13th to the 18th centuries. Although overtification processes are already frequent in Old Spanish, the distribution largely conforms to the prediction that informativity governed the use of [*acabar* + *de* + infinitive] in Old Spanish. Crucially, we found the overtification of [*acabar* + *de* + infinitive] to be closely bound to subordinate clauses expressing anteriority. In other words, writers started expressing uninformative infinitives overtly in contexts where this overtification could be taken to imply relevance of the finished event to a subsequent event in discourse. Lastly, our findings suggest that the spread of the use of [*acabar* + *de* + infinitive] with uninformative infinitives in relative past contexts was the starting point of the temporalization of the construction. Due to the frequent use of [*acabar* + *de* + infinitive] as a marker of relevance in discourse, listeners reanalyzed the construction as an anterior. We propose that the mechanism of change was Eckardt's (2009) Avoid Pragmatic Overload principle: since the original function of signaling informativity of the finished event could not be accommodated by a reader/listener, the addressee was coerced into a novel form-function mapping. Rather than assuming some sort of simplicity metric, as proposed in Eckardt (2009), or by formal approaches to grammaticalization, our data point to relevance being the main consideration. Given an interactional situation in which the old meaning could not be accommodated by an addressee, the addressee was led to the specific new meaning by interpreting the salient feature of the context – temporal anteriority – as being the most relevant, and hence the speaker-intended, meaning.

Before finishing, we raise the question as to the validity of the account proposed here beyond Spanish *acabar* constructions, or perhaps FINISH anteriors in general. While it would be precipitous to make strong claims about the extent to which lexical verbs that grammaticalize into auxiliaries tend to be inherently unsaturated, we think that there are other cases that support this scenario.

One such case is provided by another well-known pathway of change, namely, allative (spatial goal) constructions without verbs of motion that ultimately grammaticalize into future tense constructions. Grossman & Polis (2014) identify several such cases, including the well-documented one in Ancient Egyptian, in which a construction SUBJECT + ALLATIVE PREPOSITIONAL PHRASE (46) develops into a future tense construction (47).

- (46) Ancient Egyptian (Afroasiatic, Egypt; Grossman & Polis 2014)
 iw-i r p.t
 AUX-1SG ALL sky
 “I (am going) to the sky.” (early 3rd millennium BCE)
- (47) Ancient Egyptian (Afroasiatic, Egypt; Grossman & Polis 2014)
 iw dp.t r iy.t m Xnw
 AUX boat ALL come from home
 “A ship will come from home.” (late 3rd millennium BCE)

As it turns out, many languages have a construction SUBJECT + ALLATIVE PREPOSITIONAL PHRASE, in which the prepositional phrase denotes a spatial goal. Crucially for the present context, such constructions have the default interpretation of prospective motion towards the goal, even if no motion verb is overtly expressed, as in (48) from Minangkabau. Parts of such interpretations can be defeated or canceled by context, as in (49), in which *patang* “yesterday” makes it clear that the temporal reference of the utterance is past, without canceling the motion-towards meaning.

- (48) Minangkabau (Malayo-Polynesian, Indonesia; Gil & Grossman 2014)
 Ali ka pasa
 Ali to market
 “Ali is going to the market” (default interpretation)
- (49) Minangkabau (Malayo-Polynesian, Indonesia; Gil & Grossman 2014)
 Patang kawan wak ka Jakarta
 yesterday friend 1 ALL Jakarta
 “Yesterday my friend went to Jakarta”

Similarly to FINISH, these constructions are unsaturated in Recanati’s sense, in that an inferential process has to specify a value for an event variable in order for a proposition to be computed. In languages in which such constructions grammaticalized into future tense constructions, we speculate that they might have proceeded along the pathway suggested by the present study: at an early stage of development, if the event value is identical to the default interpretation, no overt verb occurred, while an event value differing from the default interpretation would encourage the occurrence of an overt verb. In other words, the pathway to overtification might also

be set in motion by informativity and the temporalization of the construction by the subsequent loss of informativity due to rhetorically-motivated overuse, hence its licensing in previously unavailable contexts. The historical documentation for Ancient Egyptian supports such a scenario, since the earliest occurrences of verbs in the above construction were those that denoted events that differed from the default interpretation, such as ACT, SAY, FULFILL and others (Grossman & Polis 2014: 48–51). It is only much later that verbs that denote simple motion could occur in the construction, which indicates that the original meaning of the construction has been reanalyzed.

In any event, what is clear is that pragmatically based accounts of semantic change and grammaticalization cannot rely wholly on synchronic evidence, since unexpected or counter-intuitive findings often arise from studies of actually documented corpora, as in the case of the importance of the syntactic context in the present study.

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Appendix

Table 4. Composition of the corpus of historiographical texts

Year	Title	Short title	Edition	N words
c. 1270	<i>Estoria de Espanna</i>	EDE	Pedro Sánchez Prieto, Alcalá de Henares: Universidad de Alcalá de Henares, 2002	259861
c. 1275	<i>General estoria I</i>	GE	Pedro Sánchez Prieto-Borja, Alcalá de Henares: Universidad de Alcalá de Henares, 2002	556992
1293	<i>Gran conquista de Ultramar</i>	GCU	Louis Cooper; Franklin M. Waltman, Madison: Hispanic Seminary of Medieval Studies, 1995	252781
c. 1340	<i>Crónica de Sancho IV</i>	SAN	Pedro Sánchez-Prieto Borja, Alcalá de Henares: Universidad de Alcalá de Henares, 2004	24237
c. 1350	<i>Sumas de la Historia Troyana</i>	SUM	Robert G. Black, Madison: Hispanic Seminary of Medieval Studies, 1995	108778
1376–1396	<i>Crónica de los conquistadores I</i>	CON	John J. Nitti, Lloyd A. Kasten, Madison: Hispanic Seminary of Medieval Studies, 1995	182539
1385	<i>Grant Crónica de Espanya I</i>	GRAN1	John J. Nitti, Lloyd A. Kasten, Madison: Hispanic Seminary of Medieval Studies, 1995	507729
1376–1396	<i>Grant Crónica de Espanya III</i>	GRAN3	John J. Nitti, Lloyd A. Kasten, Madison: Hispanic Seminary of Medieval Studies, 1995	208561
1380–1396	<i>Historia Troyana</i>	TRO	John J. Nitti, Lloyd A. Kasten, Madison: Hispanic Seminary of Medieval Studies, 1995	67139
1384–1396	<i>Guerra del Peloponeso</i>	PEL	John J. Nitti, Lloyd A. Kasten, Madison: Hispanic Seminary of Medieval Studies, 1995	36651
1486	<i>Claros varones de Castilla</i>	CLA	Óscar Perea Rodríguez, Madrid: Universidad Complutense, 2003	23949
1487	<i>Compilación de las batallas campaneles</i>	BAT	Lago Rodríguez López, Madison: Hispanic Seminary of Medieval Studies, 1992	36856
1487	<i>Valerio de las historias eclesiásticas y de España</i>	VAL	ADMYTE, 1992	128064
c. 1550	<i>Crónica del Emperador Carlos V</i>	CAR	Ricardo Beltrán y Antonio Blázquez, Madrid: Real Academia de la Historia, 1920	147373
1553–1584	<i>Las guerras civiles del Perú</i>	GUE	Carmelo Sáenz de Santamaría, Madrid: CSIC, 1985	155153
1562–1579	<i>Anales de Aragón I & II</i>	ANA	Ángel Canellas López, Zaragoza: CSIC, 1967	2201989
1604–1618	<i>Historia de la vida y hechos del emperador Carlos V</i>	VYH	Carlos Seco Serrano, Madrid: Atlas, 1955–1956	1165950

(continued)

Table 4. (continued)

Year	Title	Short title	Edition	N words
1745	<i>Narraciones históricas desde el año 1700 hasta el año 1725</i>	NAR	Patricia Fernández Martín, Madrid: Universidad Complutense de Madrid, 2008	193687
Total number of words: 6258289				

Table 5. Multinomial logistic regression model of the alternation between [*acabar* + DO] and [*acabar* + *de* + transitive infinitive] constructions (dependent variable OVERTIFICATION, reference level: ‘NoInf’)

Variable type	Variable	Level	InformativeInf			UninformativeInf		
			Beta	SE	p	Beta	SE	p
Main effects	(Intercept)		-11.790	0.000	<.001***	-10.424	0.000	<.001***
	YEAR		0.008	0.000	<.001***	0.006	0.000	<.001***
	REFCOMPL	Artifact	Reference level					
		State/event	-6.189	0.000	<.001***	-15.913	0.000	<.001***
	SUBORDINATION_AFTER	False	Reference level					
		True	-0.461	0.000	<.001***	2.844	0.000	<.001***
Interaction effects	YEAR : REFCOMPLSTATE/EVENT		0.002	0.000	<.001***	0.008	0.000	<.001***
	YEAR : SUBORDINATION_AFTERTRUE		0.000	0.000	>.05	-0.001	0.000	<.001***
	REFCOMPLSTATE/EVENT : SUBORDINATION_AFTERTRUE		0.282	NA	NA	-14.883	0.000	<.001***
	YEAR : REFCOMPLSTATE/EVENT : SUBORDINATION_AFTERTRUE		-1.288	0.000	<.001***	0.010	0.001	<.001***

Table 6. Binary logistic regression model on the diachronic development of [*acabar* + *de* + infinitive] constructions with respect to perfectivity (dependent variable PERFECTIVITY)

Effect type	Variable	Level	Beta	SE	p
Main effects	(Intercept)		-2.165	2.602	>.05
	YEAR		0.001	0.002	>.05
	REFCOMPL	None	Reference level		
		Artifact	-0.213	0.274	>.05
		State/event	-1.476	0.664	<.05*
	SUBORDINATION_AFTER	False	Reference level		
		True	11.198	4.917	<.05*
Interaction effects	YEAR : SUBORDINATION_AFTERTRUE		-0.007	0.003	<.05*

Résumé

On sait que les verbes auxiliaires se grammaticalisent à partir de verbes lexicaux, mais, tout d'abord, comment les verbes lexicaux acquièrent-ils des compléments verbaux? Cet article rend compte des faits sémantiques et pragmatiques à la base de la grammaticalisation de l'antérieur ('parfait') en espagnol [*acabar + de + infinitif*], au départ une construction lexicale signifiant FINIR. À partir de la description de FINIR en fonction de sa structure *qualia*, nous soutenons que les verbes signifiant FINIR sont lexicalement non saturés, comportant une variable événementielle à laquelle doit être attribuée une valeur, soit implicitement par inférence, soit explicitement par un complément verbal. Sur la base d'un corpus de données historiques datant des 13^{ième}-18^{ième} siècles, nous montrons que les compléments de verbes ouvertement lexicaux avaient à l'origine comme motivation leur informativité (totale ou partielle): l'infinitif sert à décrire un événement inattendu. Cependant, ce sens original de la construction fut finalement perdu en raison d'un processus d'ouverture/élargissement (overtification), qui n'a pas été abordé dans la littérature sur le changement linguistique. Nous voyons dans la documentation une augmentation de l'utilisation de l'infinitif dans des contextes où un événement fini n'est pas inattendu. Le développement ultérieur de la signification temporelle fut motivé par l'incapacité des auditeurs à s'habituer à des présupposés trop coûteux dans un contexte syntaxique particulier, ce qui conduisit à la réanalyse de la signification de la construction. En conséquence, l'*élargissement* (English *overtification*, Spanish *explicitation*) était une condition nécessaire pour la temporalisation ultérieure de la construction. Ces résultats éclairent les raisons possibles de la grammaticalisation des constructions de verbes auxiliaires, à la fois au début et à la fin de l'histoire de leur développement.

Zusammenfassung

Hilfsverben entstehen bekanntermaßen aus lexikalischen Verben. Doch welche Prozesse führen dazu, dass lexikalische Verben vor diesem Grammatikalisierungsprozess verbale Komplemente erhalten? Dieser Artikel beleuchtet die semantische und pragmatische Basis der Grammatikalisierung des spanischen lexikalischen Verbs *acabar*, mit der Bedeutung BEENDEN, zur Perfektkonstruktion [*acabar + de + Infinitiv*]. Wir beschreiben die Bedeutung von BEENDEN im Sinne seiner Qualia-Struktur und zeigen auf, dass BEENDEN-Verben lexikalisch unsaturiert sind. So muss das beendete Ereignis entweder aus dem Kontext inferiert oder explizit durch ein verbales Komplement ausgedrückt werden. Unsere Analyse auf der Basis historischer Korpusdaten (13.–18. Jahrhundert) ergibt, dass der Gebrauch von verbalen Komplementen zunächst durch den Parameter der Informativität motiviert ist: Der Infinitiv wird verwendet, um ein unerwartetes Ereignis zu beschreiben. Diese ursprüngliche konstruktionale Bedeutung verliert sich jedoch durch einen Prozess der sogenannten ‚overtification‘, der noch nicht in der Literatur zum Sprachwandel diskutiert worden ist. Die Schreiber begannen, den Infinitiv in Kontexten zu verwenden, in denen das beendete Ereignis nicht unerwartet ist. Die daraufhin folgende Entwicklung einer temporalen Bedeutung ist der Tatsache geschuldet, dass die Hörer der Konstruktion die damit verbundene Präsupposition der Informativität in bestimmten syntaktischen Kontexten nicht mehr akkommodieren konnten, und dies führte zur Reanalyse der konstruktionalen Bedeutung. In diesem Sinne war die ‚overtification‘ der Konstruktion die notwendige Vorbedingung für ihre spätere Entwicklung zu einem Tempusmarker. Unsere Ergebnisse beleuchten somit mögliche Gründe für die Grammatikalisierung von Hilfsverbkonstruktionen in frühen und späteren Entwicklungsstadien.

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