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The development of iterative verbal periphrases in Romance

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Abstract: This paper compares the diachronic development of *tomar(e) + a + infinitive* (henceforth abbreviated RETURN + INF) constructions in Spanish, Catalan, and Italian, a topic that especially for Catalan and Italian has not received much attention. I develop and explore the hypothesis that due to their lexical origin, iterative constructions develop from a restitutive to a repetitive function. A diachronic analysis of a corpus of RETURN + INF tokens from the three languages suggests that the grammaticalization of RETURN + INF constructions can be measured in terms of (a) actionality and (b) *restructuring* as mirrored in the possibility of clitic climbing. A statistical analysis using generalized linear mixed-effects regression modeling demonstrates an interplay between restructuring and the actionality of the predicates in the development of RETURN + INF constructions: the grammaticalization process affects state, achievement, and accomplishment predicates before activity predicates because activity predicates exclude a restitutive meaning. The paper thus identifies a grammaticalization path for RETURN + INF constructions common to three Romance languages that suggests a link between typological and diachronic observations. At the same time, it identifies differences in the diachronic development of these periphrases between the Ibero-Romance languages and Italian. In addition, it proposes a statistical means of assessing quantitative differences in the degree to which a verbal periphrasis is grammaticalized across related languages.

Keywords: verbal periphrasis, Romance, iterativity, grammaticalization, clitic climbing

1 Introduction

In older stages of Spanish, Catalan and Italian, iterative verbal periphrases of the form *tomar(e) + a + INF* (henceforth RETURN + INF constructions) are attested (1)–(3).¹

¹ The references to the corpora CORDE, CICA and OVI are given in the data section (Section 4).

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(1) Old Spanish

Estonce comença-ron los tribunos a aver su
 then begin-PST.PFV.3PL the tribunes to have their
consejo por establecer la ley e tornar a llamar el
 council for establish the law and return to call the
pueblo que esta-va arma-do
 people that be-PST.IPVF.3SG arm-PTCP.M.SG

‘Then the tribunes began to hold a council in order to apply the law and again call to the people, who were up in arms’

(*Las Décadas de Tito Livio*, c. 1400, *apud* CORDE)

(2) Old Catalan

E puix Moysès torna-va a alçar les mans,
 and then Moses return-PST.IPVF.3SG to raise the hands
e los fills de Israel venc-ien
 and the sons of Israel win-PST.IPVF.3PL

‘And then Moses raised his hands again, and the sons of Israel won’

(*Sermons*, St. Vicent Ferrer, 1400–1450, *apud* CICA)

(3) Old Italian

lo torna-sse a vedere un’=altra volta
 him return-PST.IPVF.3SG to see one = other time

‘He saw him again another time’

(*La Storia de Merlino* by St. Vicent Ferrer, first half 14th c., *apud* OVI)

Whereas the Spanish RETURN + INF construction was replaced by the synonymous construction *volver* + *a* + infinitive by the end of the seventeenth century (see Eberenz 1997; Stolova 2005), it was maintained in Catalan and Italian, as in Examples (4)–(5).

(4) Catalan

El sector editorial català va tornar a caure un
 the sector editorial Catalan go.PRS.3SG return to fall a
10% el 2012
 ten percent the 2012

‘The Catalan editorial marked has dropped another ten percent in 2012’

(http://www.ara.cat/llegim/sector-editorial-catala-tornar-caure_0_1045695596.html, accessed 14 July 2014)

(5) Italian

La nostra economia può tornare a crescere a
 the our economy can.PST.PFV.3SG return to grow at
un ritmo annuo dell'ordine del 3 per cento
 a rhythm annual of.the=order of.the three per cent
 'Our economy could grow again at an annual rhythm of three percent'
 (apud CORIS (Rossini Favretti 2014))

However, the productivity of the RETURN + INF constructions (including the Spanish successor *volver + a + infinitive*) in the three languages appears to differ. In particular, Modern Spanish *volver + a + infinitive* and Modern Catalan *tornar + a + infinitive* appear to be more productive than Modern Italian *tornare + a + infinitive*. This difference in productivity is reflected in the attention linguistic studies have given to these verbal periphrases. Spanish RETURN + INF constructions and their historical development have been analyzed in many studies (Yllera 1980: 196–198; Eberenz 1997; Olbertz 1998: 231–234; Stolova 2005; García Fernández et al. 2006; Melis 2006: 908–912; Garachana Camarero and Rosemeyer 2011). Catalan RETURN + INF constructions are analyzed in two standard Catalan grammars, i. e., Wheeler et al. (1999: 175–176) and Solà et al. (2002: 2702–2703). In contrast, for Italian RETURN + INF constructions, there are only scattered mentions in the literature such as, e. g., Ross (2006: 457). RETURN + INF constructions are not discussed in the large section on verbal periphrases in the *Grande grammatica italiana di consultazione* (Bertinetto 1991: 129–161). Lamiroy and De Mulder (2011) briefly discuss Italian RETURN + INF constructions, arguing that they are of weak productivity. Likewise, there seems to be uncertainty about the historical development of Italian RETURN + INF constructions. There is no mention of *tornare + a + infinitive* in the *Grammatica dell'italiano antico* (Salvi and Renzi 2010). Giacalone Ramat (2001) argues that *tornare* is an “emergent auxiliary” whereas Parry (n. d.) observes that Italian RETURN + INF constructions were more frequent in older stages of the language.

These observations suggest that although in all three languages, RETURN + INF constructions have acquired an iterative function, they differ with respect to the degree to which this change was implemented. I aim to investigate these commonalities and differences in the diachronic development of RETURN + INF constructions in Spanish, Catalan and Italian, thus shedding light on an underresearched topic in Romance linguistics. Specifically, I develop and investigate the hypothesis that due to their lexical origin, iterative constructions develop from a restitutive function (the restoration of a previous state of affairs) to a repetitive function (the repetition of a previous event). In order to test this hypothesis, I investigate the development of

RETURN + INF constructions with respect to two contextual parameters: the actionality of the predicate expressed by the infinitive and the possibility of clitic climbing. These two parameters influence the interpretation of a RETURN + INF construction as restitutive or repetitive in that (a) activity predicates exclude a restitutive interpretation and (b), clitic climbing appears to be correlated with the grammaticalization process of RETURN + INF constructions, also favoring a repetitive interpretation. I observe changes in the distribution of Spanish, Catalan and Italian RETURN + INF constructions with respect to these contextual parameters. These observations support the hypothesis that these constructions developed from a restitutive to a repetitive function. The results also illustrate how this change was implemented to a lesser degree in Italian than in the Ibero-Romance languages, suggesting that these differences in the degree of implementation of the grammaticalization process are correlated with functional differences in the use of the competing iterative *-re/-ri* prefix in the Romance languages.

The paper is structured as follows. Building on the existing literature on the development of Romance RETURN + INF constructions, Section 2 develops a model of the grammaticalization of Romance RETURN + INF constructions. In Section 3, I establish three hypotheses that make use of the influence of the contextual factors of actionality and clitic climbing on the interpretation of RETURN + INF constructions. In Section 4, I describe the extraction and coding procedures, as well as the analytical approach. Section 5 presents the results of the descriptive and inferential statistical analyses. I discuss these findings in Section 6 and explain their theoretical relevance in the concluding Section 7.

2 A model of the grammaticalization of Romance RETURN + INF constructions

When describing the function of Romance RETURN + INF constructions, it is first necessary to distinguish between RETURN + INF constructions with a lexical meaning and RETURN + INF constructions with a grammatical meaning. I illustrate this difference using the Italian examples in (6)–(7).

(6) Italian

Sono	torna-to	a	prendere	<i>niccolò che mi</i>
be.PRS.1SG	return-PTCP.M.SG	to	get	Niccolò that me
<i>ha</i>	<i>accol-to</i>	<i>con</i>	<i>grandi feste</i>	
have.PRS.3SG	receive-PTCP.M.SG	with	great parties	

'I have returned to get Niccolò who has received me with great parties'
(*apud* CORIS)

(7) Italian

E di campionato si torn-erà a parlare

And about championship REFL return-FUT.3SG to speak

sabato

saturday

‘And the championship will be discussed again next Saturday’

(*apud* CORIS)

The RETURN + INF token in (6) can be translated as ‘returning in order to do something’, and can thus be characterized as expressing a motion event. The verb *tornare* is interpreted in its lexical meaning ‘return’, whereas the prepositional phrase introduced by *a* expresses the subject referent’s motivation for returning. In contrast, the RETURN + INF token in (7) denotes the repetition of an earlier event. Thus, the verb *tornare* acquires a meaning that can be paraphrased using the adverb *again* in English. The prepositional phrase introduced with *a* no longer expresses the subject referent’s motivation, but rather the event that is repeated.

This change in meaning can be captured in terms of the presuppositions of the sentences in (6) and (7). Due to the lexical meaning of the verb *tornare*, the sentence in (6) presupposes that the subject referent has left at some previous point in time. It would be infelicitous to utter this sentence in a context in which the subject referent did not leave at a previous point in time. This presupposition does not hold in Example (7). Rather, Example (7) presupposes that the championship was discussed earlier. Note however that due to the difference between lexical and grammatical meaning, the presupposition in Example (7) appears to be weaker than the presupposition in Example (6). If (7) contrasts with the expectations of the reader or hearer in that no earlier event of speaking has taken place, s/he might be able to accommodate its meaning, maybe interpreting (7) in its lexical meaning (‘coming back to talk about X’). Such an accommodation process seems unlikely for sentence (6).

These observations suggest that the change from the lexical meaning of RETURN + INF constructions in (6) to the grammatical meaning in (7) is an instance of grammaticalization (Meillet 1912; Lehmann 1995; Hopper and Traugott 2003). However, how can we motivate this meaning change in RETURN + INF constructions?

Analyses of the meaning of the semantic field of iterativity covered by the English adverb *again* and its cognates in German, Spanish, Catalan, and Italian assume a distinction between a *repetitive* and a *restitutive* meaning (Fabricius-Hansen 1980; Kamp and Rossdeutscher 1994: 189–191; Fabricius-Hansen 2001; Wälchli 2006: 74–78). I illustrate this difference using the Examples (8)–(9).

- (8) *We'll meet **again** some sunny day.*
 (9) *She is back at our flat **again**.*

Like Example (7), Example (8) is an instance of a repetitive meaning; the earlier event ('meeting') is repeated in the future. In contrast, Example (9) does not express the event of returning to the flat but rather the restitution of an earlier state ('being at the flat'). Such a restitutive meaning can also be found when analyzing Italian RETURN + INF constructions (see Example (10)).

- (10) Italian

Non vogl-io tornare a vivere in modo normale
 Not want-PRS.1SG return to live in way normal
 'I do not want to again live a normal life'
 (*apud* CORIS)

As noted by Kamp and Rossdeutscher (1994: 191), sentences with *again* such as (11) are ambiguous between a repetitive and restitutive meaning: in (11), *again* can be interpreted as expressing either the repetition of the event of recovering or the restitution of the previous state of being healthy.

- (11) *After three weeks he recovered **again**.*

Crucially however, the restitutive meaning appears to be more basic than the repetitive meaning. In the words by Wälchli (2006: 75), it seems that "the restitutive reading is the more natural one in most contexts if both readings are possible". Building on the work by Kamp and Rossdeutscher (1994), he (2006: 77) observes that it "often happens to be the case that repetitive 'again' is emphatic; and we have noted that it is often stressed in English and German". This observation is corroborated by the examples in (8)–(9): whereas leaving out *again* in (8) would lead to a change in meaning, to some degree *again* seems to be redundant in (9). In a corpus study of German, Fabricius-Hansen (2001: 125) interpreted more than two thirds of the total number of sentences involving *wieder* 'again' as restitutive.

These observations can be used to motivate a model of the grammaticalization of Romance RETURN + INF constructions (see Melis 2006 for a similar, but much less explicit approach to the grammaticalization of these constructions). In particular, I propose that the first step in the grammaticalization of RETURN + INF constructions was the metonymical reanalysis of the original locative value of *tomar(e)* as in (6) – already restitutive in the sense that a previous spatial location is restored – to a more abstract type of restitution as in

(10). The fact that verbs expressing a return have a high semantic potential for this type of reanalysis has already been described for typologically diverse languages in Lichtenberk (1991: 409–522), Heine and Kuteva (2002: 269–260), Wälchli (2006), and Moysse-Faurie (2012). In Wälchli’s words, “‘again’ expressions may develop from expressions of return etymologically, notably return verbs, by the way of the area of functional overlap between return and local restitution” (Wälchli 2006: 75).

The metonymical relationship between the source domain of return verbs and the repetitive meaning is much less direct: the event of returning as such does not presuppose the repetition of an earlier event. However, it is possible to propose a metonymical link between restitution and repetition: if a subject referent has returned to an earlier state, it is plausible that s/he has undergone the same process twice, only in opposing directionality. As an example, consider the early RETURN + INF token from Old Spanish in (12).

(12) Old Spanish

E los buetres, con grand sabor que av-ién de
 and the vultures with great desire that have-PST.PFV3PL of
alcançar la carne que ve-yén sobre sí, alça-ron
 reach the meat that see-PST.IPFV.3PL above REFL lift-PST.PFV.3PL
tanto el arca que quer-ien ya llegar
 so.much the chest that want-PST.IPFV.3PL already arrive
al cerco de la luna [...]
 to.the ring of the moon
 [...] *cuando vi-eron la carne so sí torn-aron*
 when see-PST.PFV.3PL the meat under REFL return-PST.PFV3PL
a volar ayuso, e descend-ieron con él, e
 to fly down and descend-PST.PFV.3PL with him and
poss-aron en un mont
 land-PST.PFV3PL on a mountain

‘And the vultures, with great desire to reach the meat that they saw above them, lifted the chest so much as if they wanted to reach the moon [...]. ... when they saw the meat below them they flew down again, and descended with him [Nemprot], and landed on a mountain.’

(*General estoria I*, second half 13th c., *apud* CORDE)

In the text passage in (12), the character Nemprot builds a flying machine by chaining four big vultures to a chest. Above the chest, he mounts pieces of meat on staffs out of immediate reach of the vultures. Nemprot steps into the chest

and in their effort to reach the meat, the vultures lift up the chest. However, high up in the air, Nemprot becomes afraid of suffocation and therefore throws the meat towards the earth. Consequently, the vultures fly down again.

The RETURN + INF token *tomaron a volar ayuso* in (12) is ambiguous between a motion event reading and a restitutive iterative reading. Thus, it could be translated as either ‘they turned to fly downwards’ (motion event reading) or ‘they flew down again’ (restitutive reading). The restitutive reading could be described as follows. The vultures and Nemprot change location from a previous altitude to a higher altitude. Then an event occurs (the descent of the vultures, expressed by the RETURN + INF token) that leads to the restoration of the previous altitude.

Crucially, the token in (12) illustrates the metonymical link between the restitutive and the repetitive reading of RETURN + INF constructions. Specifically, the restitution of the previous height presupposes the repetition of an event, i. e., changing height. Schematically (Figure 1):

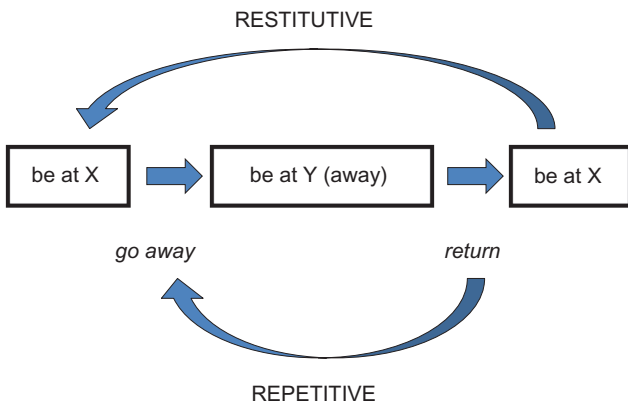


Figure 1: The reanalysis of restitutive > repetitive meaning.

It stands to reason that the meaning change restitutive > repetitive exploits this presupposition. Note that this relationship is unidirectional, since we cannot assume that the repetition of an event (for instance, discussing an issue again, as in Example (12)) presupposes the restoration of a previous state of affairs. The unidirectionality of the relationship between restitutive and repetitive meaning strongly suggests that the meaning change originated in RETURN + INF tokens with a restitutive, not repetitive, meaning. On the basis of these considerations, I propose the model of the semantic change of RETURN + INF constructions in Romance in (13).

(13) Change of location > Restitution > Repetition

In the following sections, I explore the predictions of this diachronic model regarding the parameters of predicate class and clitic climbing.

3 Hypotheses

Semantic change is gradual. When a construction grammaticalizes, we typically do not observe an abrupt transition from one function to another function. Rather, the semantic change usually entails a transition period in which both functions co-exist. In such a transition period, we often find examples that can be interpreted as exhibiting either of these functions. The formalization of this state of affairs in functionalist historical linguistics is the notion of *bridging viz. critical contexts* (Diewald 2002; Heine 2002; Diewald 2006). To give an example from Traugott and Trousdale (2010: 36), English *hell of a* is developing into a degree modifier. However, “only context will determine whether, when a speaker describes something as a *hell of a short journey*, he means that the journey was unbearable, though short, or whether it was surprisingly short” (Traugott and Trousdale 2010: 36).

This observation has non-trivial consequences for quantitative analyses of processes of language change because it entails that linguists cannot always rely on introspection when measuring semantic change, particularly in historical data. It is therefore preferable to study semantic change by analyzing contextual parameters that can be regarded as indicators of the semantic change in question. In the remainder of this section, I propose two contextual parameters that are correlated to the function of RETURN + INF constructions and are therefore a good choice for this procedure: actionality and clitic climbing.

3.1 Actionality

It is well known that the interpretation of a sentence including an adverb expressing ‘again’ at least partly depends on the actionality of the predicate. In Fabricius-Hansen’s (2001: 102) words, “a genuine restitutive interpretation is allowed only with telic change-of-state predicates”. Thus, whereas with the telic change of location predicate *abreisen* ‘leave’ both a repetitive (14) and restitutive (15) reading of a sentence is possible (as indicated by the placement of *wieder* ‘again’ and the stress patterns), a restitutive reading is excluded in (16) due to the fact that *kritisieren* ‘criticize’ is an activity predicate.

- (14) German
Heute ist WIEder ein Teilnehmer abgereist.
 today be.PRS.3SG again a participant leave.PTCP
 ‘Today again a participant left’ [repetitive reading]
 (Fabricius-Hansen 2001: 103)
- (15) German
Heute ist ein Teilnehmer wieder ABgereist.
 today be.PRS.3SG a participant again leave.PTCP
 ‘Today a participant left again’ [restitutive reading]
 (Fabricius-Hansen 2001: 103)
- (16) German
Arnim hat wieder CHOmsky kritisiert.
 Arnim have.PRS.3SG again Chomsky criticize.PTCP
 ‘Arnim has again criticized Chomsky’ [repetitive reading]
 ‘Arnim has criticized Chomsky again’ [*restitutive reading]

We can exploit this interplay between actionality and type of iterative meaning in order to measure the semantic change of RETURN + INF constructions in Romance. Assuming that the repetitive function of Romance RETURN + INF constructions is chronologically posterior to the restitutive function of these constructions, we can predict that RETURN + INF constructions should first appear with predicates allowing for restitutive readings, and only later with activity predicates. I summarize this first hypothesis in (17).

- (17) **Hypothesis 1.** RETURN + INF constructions acquire a restitutive value earlier in time than a repetitive value. Consequently, RETURN + INF constructions first appear with state and achievement/accomplishment predicates, and only afterwards with activity predicates.

3.2 Clitic climbing (CC)

It has been shown that clitic climbing – the fronting of clitic arguments of the infinitive, to the effect that these clitics are located before or on the finite verb – interacts with the possibility of a repetitive or restitutive reading of RETURN + INF constructions in Spanish and Catalan. In the presence of clitic climbing Modern Spanish *volver + a + infinitive* and Modern Catalan *tornar + a + infinitive* exclude a

motion event reading, as shown by (18)–(19) (Gómez Torrego 1999: 3376; García Fernández et al. 2006: 281).²

(18) a. Spanish

Volv-ió *a redactar=lo*
 return-PST.PFV.3SG to formulate=it
 ‘S/he formulated it again’
 ‘S/he came back to formulate it’
 (García Fernández et al. 2006: 281)

b. Spanish

Lo volv-ió *a redactar*
 it return-PST.PFV.3SG to formulate
 ‘S/he formulated it again’
 *‘He came back to formulate it’
 (García Fernández et al. 2006: 281)

(19) a. Catalan

Va *tornar a dir=ho.*
 go.PRS.3SG return to say=it
 ‘He said again’
 ‘He came back to say...’

b. Catalan

Ho va *tornar a dir.*
 it go.PRS.3SG return to say
 ‘He said again’
 *‘He came back to say...’

This interplay between the syntactic process of clitic climbing and the semantic interpretation of RETURN + INF constructions can be explained by recurring to the notion of *syntactic restructuring*, developed in Rizzi (1976). The fundamental idea is that in its locative reading ‘He came back to say’, sentences such as (18a), (19a) express two predicates (‘going to a place’ and ‘saying something’) and can thus be characterized as biclausal. In contrast, in their iterative reading ‘He said again’, the sentences in (18a), (19b) are monoclausal and *volver/tornar* has been reanalyzed as an auxiliary. This change can be visualized in terms of a syntactic rebracketing, as illustrated in (20).

(20) [*tornar*] [*a V_{inf}*] > [*tornar a*] [*V_{inf}*]

² In Modern Catalan, the verbal periphrasis *anar* ‘go’ + infinitive is used to express a past event (see, e. g., Pérez Saldanya and Hualde 2003; Jacobs 2011).

As noted by Parry (n.d.: 26), this change is clearly an instance of a grammaticalization process, as the grammatical status of the verb *tornar(e)* viz. *volver* changes from lexical verb to auxiliary, leading to a decrease in its syntactic autonomy. When studying the historical development of clitic climbing in Spanish gerundial expressions, Torres Cacoulios (1999) found that the diachronic increase of clitic climbing is correlated with the fixation of the word order in the constructions, as well as with a decrease in intervening material. She (1999: 165) concludes that “CC is part of a series of reductive changes in the form of periphrastic expressions as they emerge as more fused units”. These syntactic changes should in turn be correlated to the semantic change from a locative to an iterative reading, as outlined above.

Crucially, this observation leads to a clear prediction regarding the diachrony of RETURN + INF constructions in Romance. If, as argued in Section 3.1, the grammaticalization process affects state and achievement/accomplishment predicates before activity predicates, this more advanced degree of grammaticalization for these predicates should be reflected by a quantitative preponderance of clitic climbing with these predicates in earlier stages of the change. In other words, clitic climbing should be attested earlier in RETURN + INF constructions with state and achievement/accomplishment predicates than in RETURN + INF constructions with activity predicates.

The notion that the repetitive or restitutive interpretation of RETURN + INF constructions depends on whether these constructions have undergone a process of restructuring also has explanatory potential for the fact that the productivity of RETURN + INF appears to be lower in Italian than in Spanish and Catalan. In contrast to the Spanish and Catalan data adduced in (18)–(19), it has been argued that clitic climbing does not lead to the exclusion of the locative reading in Italian RETURN + INF constructions (Giacalone Ramat 2001: 125). I illustrate this difference using Giacalone Ramat’s Example (21).

(21) a. Italian

torn-o *a prender=lo*
 return-PRS.1SG to pick.up=it
 ‘I come back to pick it up’
 ‘I pick it up again’
 (Giacalone Ramat 2001: 125)

b. Italian

lo torn-o *a prendere*
 it return-PRS.1SG to pick.up
 ‘I come back to pick it up’
 ‘I pick it up again’

If no restructuring process has taken place in the Italian RETURN + INF construction, it appears to be less grammaticalized than their Spanish and Italian counterparts. It has already been shown in Section 1 that several authors assume that the Italian RETURN + INF construction is weakly grammaticalized. In the vein of the model of the grammaticalization of RETURN + INF constructions established in the last section, it would thus be expected that Italian RETURN + INF tokens more frequently express a restitutive than a repetitive meaning.

These considerations, summarized in (22), suggest that the grammaticalization of RETURN + INF constructions, as well as the semantic change from a restitutive to a repetitive reading, can be measured in terms of clitic climbing.

- (22) **Hypothesis 2.** The degree of grammaticalization of RETURN + INF constructions can be measured using the parameter of clitic climbing. The increasing grammaticalization of RETURN + INF constructions is thus reflected in a growing probability of clitic climbing.

In addition, we can assume that the diachronic development of RETURN + INF constructions with regard to clitic climbing and their development regarding actionality are interrelated. If the shift from restitutive to repetitive meaning is mirrored in changes in the distribution of RETURN + INF constructions regarding the infinitives (Hypothesis 1) and the grammaticalization of the constructions is mirrored in changes in their distribution regarding CC (Hypothesis 2), it can be assumed that clitic climbing should be attested earlier for RETURN + INF constructions with infinitives that refer to state or achievement/accomplishment predicates than for RETURN + INF constructions with infinitives that refer to activity predicates. I summarize this third hypothesis in (23):

- (23) **Hypothesis 3.** Clitic climbing should be attested earlier for RETURN + INF constructions with infinitives that refer to state or achievement/accomplishment predicates than for RETURN + INF constructions with infinitives that refer to activity predicates.

4 Data and methodology

In order to test Hypotheses 1–3, a total number of 2469 tokens of RETURN + INF constructions were extracted from digital corpora of Old Spanish, Old Catalan and Old Italian and coded for a series of linguistic variables. In this section, I describe the extraction and coding procedures, as well the analytical approach.

4.1 Extraction procedure

The tokens were extracted from the *Corpus diacrónico del español* for Old Spanish (henceforth: CORDE, Real Academia Española 2014), the *Corpus informatitzat del català antic* for Old Catalan (henceforth: CICA, Torruella et al. 2013) and the *Corpus OVI dell'italiano antico* for Old Italian (henceforth: OVI, Istituto Opera del Vocabolario Italiano del Consiglio Nazionale delle Ricerche 2014), as well as the *Biblioteca Italiana Telematica* (henceforth: BIBIT, Centro Interuniversitario Biblioteca Italiana Telematica 2014).

The timeframe investigated was 1200–1699.³ Note that in the CICA, the source texts are not dated according to the (assumed) publication date, but according to the birth date of the authors. This means that in the remainder of this paper, when comparing the Catalan to the Spanish and Italian data, we will have to subtract around 30–40 years when considering the historical development of Catalan RETURN + INF constructions. However, since the hypotheses established in Section 2 are concerned with the relative, not absolute, chronology of the development of RETURN + INF constructions, this does not have a significant influence on the analysis.

I was interested not only in the distribution of RETURN + INF constructions, but also in the frequencies of use of RETURN + INF constructions relative to other *tornar(e) + a* constructions (such as Old Spanish *tornar a Madrid* ‘return to Madrid’). In the remainder of this paper, I will refer to this more general *tornar(e) + a + X* construction as the *RETURN construction*. In the corpus queries, all instances of the RETURN construction were searched for using the search strings *torn* a* (CORDE), *torn% a* (CICA), *torn* a* (OVI) and *torn** (BIBIT); the relevant RETURN + INF tokens were isolated manually in a second step by excluding all tokens in which the element after the preposition *a* was not an infinitive. Note that in this fashion, only RETURN and RETURN + INF tokens were included in which no intervening material is present between the verb *tornar* and the preposition *a* (for an example with intervening material, cf. Example 24).⁴ This restriction is due to the fact that the CORDE is not lemmatized; to include cases with intervening material from the other two, lemmatized, corpora would thus have skewed the data.

³ There is some overlap between the BIBIT and the OVI with regard to the included texts. When tokens from one and the same text represented in the two corpora were found, preference was given to the tokens from the BIBIT.

⁴ Note that Example (24) has a locative rather than an iterative reading. Although I cannot adduce quantitative data to support this claim here, it appears that the presence of intervening material between *tornar(e)* and the prepositional phrase disfavors the iterative reading.

- (24) Old Italian
ch' egli torn-ino a mee a dir=ci novelle delo
 that they return-COND.3PL to me to tell.us news of.the
ree Arturi
 king Arthur
 'That they would return to tell us news about king Arthur'
 (*Tristano Riccardiano*, second half 13th c., *apud* OVI)

Additionally, the queries were restricted to narrative texts (both fictional and historiographical texts) in order to (a) obtain a sufficient number of cases and (b) ensure comparability of the data.

4.2 Coding procedures

In line with the assumption that semantic change is gradual and that, consequently, coding for the function of a grammaticalizing construction can potentially skew the analytical results (see the discussion at the beginning of Section 3), I coded the data token by token for actionality and clitic climbing. In the following, I describe these coding procedures.

4.2.1 Actionality

In coding actionality in the data, I used a reduced version of the standard model of actionality, as described in, e. g., Bertinetto (2001). Thus, I established a variable ACTIONALITY with three levels: "1=state", "2=activity", "3=achievement/accomplishment". In a first step, these levels were coded in accordance with the two semantic features [\pm durative] and [\pm dynamic]. The actionality of a predicate interacts with transitivity and furthermore the definiteness of the direct object in a transitive sentence. Whereas in its intransitive use, a verb such as *draw* refers to an activity (see (25)), in its transitive use it refers to an accomplishment if a determiner is present in the direct object (26). If the direct object is a bare noun, the verb refers to an activity (27). The coding of the variable ACTIONALITY was therefore changed accordingly in a second step.

- (25) John draws.
 (26) John draws a/three/several circle(s).
 (27) John draws circles.

Note that in the regression model presented in Section 5, I condensed the variable ACTIONALITY into the variable ACTIVITY, collapsing the three-way distinction into a binary distinction between activity predicates and all other predicates.

4.2.2 Clitic climbing

I identified four different syntactic configurations regarding the use and position of clitics in the three languages: (a) there may not be a clitic, (b) the clitic may be realized in the object position, (c) the clitic can be realized midway between the verb *tornar(e)*, and (d) the clitic can be realized before the verb *tornar(e)*.

In the old stages of all of the languages under study, clitics can be realized in the regular object position behind the verb, as in Examples (28)–(29).

(28) Old Spanish

mas record-ó=se cómo no av-ía

but remember-PST.PFV.3SG=REFL how not have-PST.IPFV.3SG

acaba-do su oración que cada día ora-va, e
finish-PTCP his prayer that every day pray-PST.IPFV.3SG and

torn-ó a començar=la de cabo

return-PST.PFV.3SG to begin=it again

‘But he remembered how he had not finished his prayer that he prayed every day, and presently began it again’

(*Crónica del rey don Rodrigo, postrimero rey de los godos*, first half 15th c., *apud* CORDE)

(29) Old Catalan

torn-ant a unir=se ab la cordillera

return-PTCP.PROG to unite=REFL from the mountain.range

que av-em descri-ta

that have-PRS.1SG describe-PTCP.F.SG

‘And they united again from the mountain range that we have described’

(*l-lustracions dels comtats de Rosselló, Cerdanya y Conflent*, second half 15th c., *apud* CICA)

However, in the time period under study clitic climbing is also already attested. As illustrated in the Catalan examples (30)–(31), both object pronouns and reflexive pronouns are affected by the phenomenon (Fischer 2002; 2003; Batllori et al. 2004). According to Wanner (1987: 290–301), this pattern is similar for all Old Romance languages. For specific information on clitic climbing in Old

Spanish, see Berta (2000) and Iglesias (2012), for Old Italian see Wanner (1981) and Russi (2008: Ch. 3.4 and 4).

(30) Old Catalan

Emperò, passa-t lo temps, los godos los torna-ren
 but pass-PTCP the times the goths them return-PST.PFV.3PL
a perseguir
 to pursue
 ‘But after some time the Goths started again to pursue them’
 (*Llibre de les grandeses de Tarragona*, first half 15th c., *apud* CICA)

(31) Old Catalan

lo dit regne se torn-à a
 the say.PTCP kingdom REFL return-PST.PFV.3SG to
perdre
 lose
 ‘The said kingdom was lost again’
 (*Il·lustracions dels comtats de Rosselló, Cerdanya y Conflent*, first half 15th c.,
apud CICA)

In contrast to modern stages of these languages, it is possible to find examples where the clitic does not climb to the syntactic position before *tornar(e)*, but rather attaches itself to *tornar(e)* (see (32)–(33)). Note however that no such example was found in the Catalan data.

(32) Old Spanish

& **torn-o=le** **a preguntar muy firme**
 and return-PST.PFV.3SG=him to ask very hard
fasta que sopo todo el fecho
 until that know.PST.PFV.3SG all the fact
 ‘And he asked him again resolutely until he knew all of the facts’
 (*Sumas de la historia troyana de Leomarte*, second half 14th c., *apud*
 CORDE)

(33) Old Italian

e torn-o=ssi a sedere
 and return-PST.PFV.3SG=REFL to seat
 ‘And he sat down again’
 (*Decameron*, second half 14th c., *apud* OVI)

In addition, it is possible to find cases in which the clitic only climbs to the position between the preposition and the infinitive, as in (34).

(34) Old Spanish

E en esta manera aquellas dos torres queda-ron
 and in this way these two towers stay-PST.PFV.3PL
sin anparo [...] el tesorero Ruy López, con
 without cover the treasurer Ruy López with
algunos criados del Rey e de la Reyna,
 some servants of.the king and of the queen
torna-ron a las combatir
 return-PST.PFV.3PL to them fight

‘And (since) in this way the these two towers had lost its protection [...] the treasurer Ruy López, with some servants of the King and the Queen, attacked them again’

(*Crónica de los Reyes Católicos* de Hernando del Pulgar, second half 15th c., *apud* CORDE)

I created a variable CLITIC CLIMBING representing these different syntactic configurations. The coding of the variable is represented in Table 1. The terminology is taken from Torres Cacoullós (1999).

Table 1: Coding of the variable CLITIC CLIMBING.

Level	Syntactic representation	Examples from the text
0=no.clitic	<i>tornar</i> + <i>a</i> + infinitive	(1), (2), (10)
1=clitic.in.situ	<i>tornar</i> + <i>a</i> + infinitive=C	(24), (28), (29)
2=clitic.midway	<i>tornar</i> =C + <i>a</i> + infinitive	(32), (33), (34)
	<i>tornar</i> + <i>a</i> + C + infinitive	
3=clitic.preposed	C <i>tornar</i> + <i>a</i> + infinitive	(3), (30), (31)

4.3 Analytical approach

I first analyzed the annotated data on the basis of the inspection of the frequency distributions and then validated the results from this descriptive analysis on the basis of an inferential statistical analysis. Drawing conclusions from the visual inspection of frequency distributions, or relying on distribution test statistics in frequency distributions is potentially misleading since they do not control for other factors that may explain these differences. Therefore, inferential statistical

analysis must be applied to detect such associations. Consider the following example from Bortz and Schuster (2010: 339). Researchers want to analyze the relationship between the number of crimes and the number of policemen. The authors collect data in cities of more than 30,000 inhabitants. A table comparing the number of crimes and the number of policemen displays a positive correlation: “the more crimes, the more policemen”, contradicting the assumption that a greater number of policemen will have a negative influence on the number of crimes. This apparent correlation is caused by a third variable not controlled for, the number of inhabitants in a city, because greater cities typically have both more crimes and more policemen. If this third variable had been controlled for, the study might show the assumed result (more policemen, fewer crimes). This example demonstrates that the inspection of data on the basis of 2×2 tables alone can be misleading because they do not control for other variables that might influence the distribution displayed in the table.

For this reason, I complemented the descriptive analyses with three generalized linear mixed-effects regression analyses (Pinheiro et al. 2015) in R (R Development Core Team 2015), measuring the changes over time in Spanish, Catalan, and Italian RETURN+INF constructions.⁵ Although each of the regression models was calculated for a different language, they had exactly the same statistical setup. The dependent variable TIME refers to the date of composition of the book containing the token. The variable received numerical values between 1 and 5, referring to time periods of 100 years. In accordance with the descriptive analysis, two main predictor variables were assumed: CC and ACTIVITY. Whereas CC, i.e., clitic climbing, was modeled exactly as described in Section 4.2.2, the variable ACTIVITY models actionality as a binary variable, distinguishing between activities (ACTIVITY=TRUE) and states, achievements and accomplishments (ACTIVITY=FALSE). This decision was made because of (a) the scarcity of the data for Catalan and Italian, which does not allow statistically powerful analyses on these samples and (b) because Hypothesis 2 and 3 concern the behavior of activity predicates as opposed to state, achievement and accomplishment predicates. I also included an interaction term between ACTIVITY and CC (ACTIVITY x CC) in order to measure the differences in the development of CC for activity predicates and other predicates.

As a random effect, I included the lemma of the infinitive (variable INFINITIVE) appearing in the RETURN+INF construction. The advantage of mixed-effects modeling is that including random effects in the analysis allows one to control for variation that is constant with a variable (cf., e. g., Baayen 2008: 241–259). In this case, it could be assumed that the development of RETURN+INF

⁵ R version used: 3.0.2, 64 bit.

constructions differs as a function of the development of the infinitive. Including INFINITIVE as a random effect therefore effectively controlled for any possible idiosyncratic behavior of specific auxiliated verbs.

5 Results

Figure 2 illustrates the overall quantitative development of RETURN + INF constructions in the Spanish, Catalan, and Italian data. It plots the percentage of use of RETURN + INF constructions with respect to all cases of *tomar(e) + a* constructions (i. e., RETURN constructions) found in the data. The proportion of use of RETURN + INF constructions in relation to all other uses of RETURN constructions is taken as an indicator of the development of the productivity of RETURN + INF constructions. The figure clearly indicates that, over time, in all three languages the relative frequency of RETURN + INF constructions increased. I interpret this rise in the relative frequency of RETURN + INF constructions as an indicator of the grammaticalization of these constructions. In addition, the figure reveals a difference in the quantitative development of RETURN + INF constructions in the Ibero-Romance languages Spanish and Catalan on the one hand, and Italian on the other hand. In Spanish and Catalan the relative proportion of use of RETURN + INF

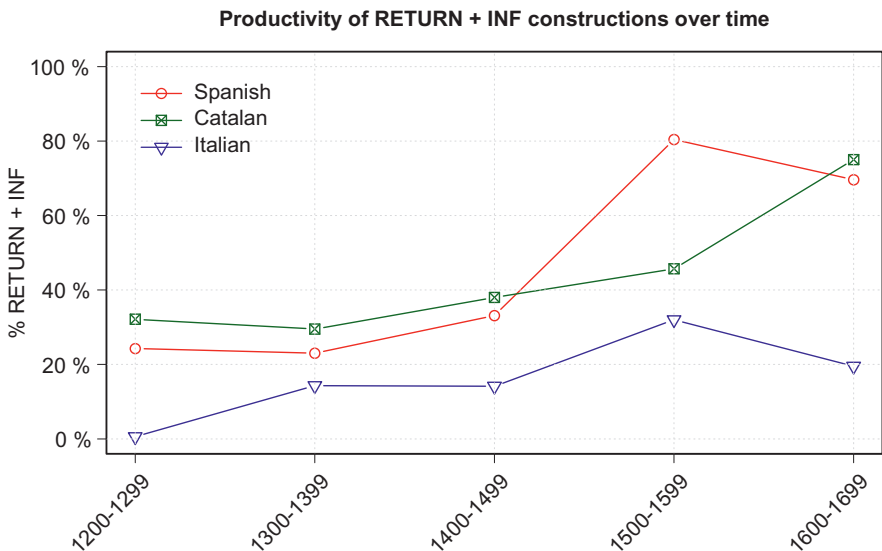


Figure 2: Quantitative development of RETURN + INF constructions vs. RETURN constructions in the corpus.

constructions is already more frequent in the thirteenth century (around 30 percent) than in Italian (under one percent). This discrepancy increases over time. In the seventeenth century, the relative proportion of use of RETURN + INF constructions lies at roughly 70 percent for the Ibero-Romance languages and at only 20 percent for Italian. This result can be taken to indicate that, first, the grammaticalization of RETURN + INF constructions appears to have taken place later in Italian than in the Ibero-Romance languages and second, that this process appears to have been slower, possibly leading to the difference in productivity of these verbal periphrases in Modern Spanish and Catalan on the one hand, and Italian on the other hand (see Section 1).

Having established the general development of the distribution of RETURN + INF constructions in the Spanish, Catalan, and Italian data, I now review the results from the analysis regarding the three hypotheses established in Section 3.

5.1 Hypothesis 1: Actionality

According to Hypothesis 1, state and achievement/accomplishment predicates appear earlier in RETURN + INF constructions than activity predicates. Table 2

Table 2: Development of RETURN + INF constructions as a function of actionality.

	1200–1299	1300–1399	1400–1499	1500–1599	1600–1699
SPANISH					
1=state	3.51 % (6)	13.04 % (6)	6.03 % (21)	4.08 % (45)	4.43 % (7)
2=activity	85.38 % (146)	67.39 % (31)	52.30 % (182)	22.83 % (252)	17.72 % (28)
3=achievement/ accompl.	11.11 % (19)	19.57 % (9)	41.67 % (145)	73.10 % (807)	77.85 % (123)
Total	171	46	348	1104	158
CATALAN					
1=state	0.00 % (0)	0.00 % (0)	4.52 % (7)	5.41 % (2)	0.00 % (0)
2=activity	100 % (9)	96.61 % (57)	63.23 % (98)	32.43 % (12)	66.67 % (2)
3=achievement/ accompl.	0.00 % (0)	3.39 % (2)	32.26 % (50)	62.16 % (23)	33.33 % (1)
Total	9	59	155	37	3
ITALIAN					
1=state	66.67 % (2)	34.02 % (33)	23.07 % (3)	12.39 % (29)	6.25 % (2)
2=activity	33.3 % (1)	52.58 % (51)	46.15 % (6)	46.15 % (108)	56.25 % (18)
3=achievement/ accompl.	0.00 % (0)	13.40 % (13)	30.77 % (4)	41.45 % (97)	37.50 % (12)
Total	3	97	13	234	32

illustrates the development of RETURN + INF constructions with respect to the distribution of the infinitives in the three languages under study.

Given that there are only three cases of RETURN + INF constructions in the thirteenth century Italian data, as well as in the seventeenth century Catalan data, I will disregard these data in the descriptive analysis in this section. The table suggests a very similar development in the distribution of RETURN + INF constructions with predicate types in all three languages. In Spanish and Catalan, activity predicates are the most frequent predicate type in RETURN + INF constructions until the sixteenth century. In Italian, activity predicates remain the most frequent predicate type until the seventeenth century.

This finding clearly contradicts Hypothesis 1. In order to explain this surprising quantitative finding, it is necessary to take a closer look at the data. A qualitative analysis of the data revealed a function of RETURN + INF constructions that is related to the restitutive function described in Section 2, but is much more specialized. This function is particularly related to the use of RETURN + INF constructions with speech act verbs, as evident in Examples (35–39).

(35) Old Spanish

Mas agora dex-a ell estoria de fablar desto. &
 but now stop-PRS.3SG the story of talk of.this and
torn-a a contar de los fechos que fizo
 return-PRS.3SG to tell of the deeds that do.PST.PFV.3SG
Cipion en espanna
 Cipion in Spain

‘But now the story stops talking about this and again tells us about the deeds done by Cipion in Spain’

(*Estoria de Espanna I*, second half 13th c., *apud* CORDE)

(36) Old Spanish

Agora dex-a aqui la Estoria de contar destas;
 now stop-PRS.3SG here the story of tell of.these
razones & torn-a a dezir del Rey don Sancho
 things and return-PRS.3SG to say of.the King Don Sancho

‘Now the story here stops telling us about these things and again says things about King Don Sancho’

(*Estoria de Espanna II*, second half 13th c., *apud* CORDE)

(37) Old Catalan

Torn-a a parlar lo libre que quant les galees dels
 return-PRS.3SG to talk the book that when the galeers of.the

proensals foren...

proenzals be.PST.IPFV.3PL

‘The book again talks to us about when the galeers of the proenzals were...’

(*Crònica de B. Desclot*, second half 13th c., *apud* CICA)

(38) Old Catalan

di lui no parl-a ora il conto più qui
of him not talk-PRS.3SG now the story more here
indritto, anzi torn-a a parlare di Nascens
exactly but return-PRS.3SG to talk of Nascens
e de la reina Saracinta...

and of the queen Saracinta

‘But now the story no longer talks about him, but again talks about Nascens and the Queen Saracinta’

(*Storia del San Gradale*, first half 14th c., *apud* OVI)

(39) Old Italian

Ora torn-eremo a dire d’=Adamo e segui-remo
now return-FUT.1PL to say of=Adam and continue-FUT.1PL
sua storia
his story

‘Now we again say things about Adam and continue his story’

(*Libro di varie storie*, second half 14th century, *apud* OVI)

Rather than denoting the repetition of an earlier action, the construction serves to resume an earlier topic. In Example (39) this function is expressed explicitly (*seguiremo sua storia*). When discussing the function of RETURN + INF constructions in Alfonsine texts as exemplified in (35)–(36), González Cobas (2010: 207–211) uses the term *reactivación* ‘reactivation’. He describes reactivation as follows:

... paragraphs that appear at the end of the chapters have an almost fixed structure and either announce the information given in the next chapter or take up again a topic dealt with before but momentarily suspended by the narrator. In both cases speech verbs are used (*decir* ‘say’, *fablar* ‘talk’, or *contar* ‘tell’), conjugated in either first person plural or third person singular when the referent is *la estoria* ‘the story’... (González Cobas 2010: 208–209, transl. MR)

We are thus dealing with a subtype of RETURN + INF constructions with a clear metalinguistic value, related to what Wälchli (2006: 76) calls *continuative* ‘again’. The meaning of continuative RETURN + INF constructions is of lexical

nature. Thus, the RETURN + INF tokens in (35)–(39) could be translated quite literally as ‘return to speak of X’. In other words, they are similar to RETURN + INF tokens with a change-of-location meaning, but differ from these in that the domain of movement has been metaphorically transposed from LOCATION IN SPACE TO LOCATION IN BOOK.⁶ In addition, like change-of-location RETURN + INF constructions, continuative RETURN + INF constructions do not seem to be subject to restructuring, as evidenced by the fact that the examples in (35)–(39) do not display clitic climbing.

Table 3 illustrates the development of the proportion of use of RETURN + INF constructions with speech act verbs vs. other verbs in the three languages under study. For Spanish, the speech act verbs encountered in the data were *contar* ‘tell’, *hablar* ‘talk’, *decir* ‘say’, for Catalan, *parlar* ‘talk’, and for Italian, *parlare* ‘talk’ and *dire* ‘say’.

Table 3: Diachronic distribution of the use of speech act verbs vs. other verbs in Spanish, Catalan, and Italian RETURN + INF constructions.

	1200–1299	1300–1399	1400–1499	1500–1599	1600–1699
SPANISH					
Other verbs	23.98 % (41)	56.52 % (26)	69.05 % (241)	90.61 % (994)	94.19 % (146)
Speech act verbs	76.02 % (130)	43.48 % (20)	30.95 % (108)	9.39 % (103)	5.81 % (9)
Total	171	46	349	1097	155
CATALAN					
Other verbs	0.00 % (0)	5.09 % (3)	76.13 % (118)	100.00 % (37)	66.7 % (2)
Speech act verbs	100.00 % (9)	94.92 % (56)	23.87 % (37)	0.00 % (0)	33.3 % (1)
Total	9	59	155	37	3
ITALIAN					
Other verbs	100.00 % (3)	65.98 % (64)	84.62 % (11)	89.32 % (209)	87.50 % (28)
Speech act verbs	0.00 % (0)	34.02 % (33)	15.38 % (2)	10.68 % (25)	12.5 % (4)
Total	3	97	13	234	32

Table 3 demonstrates another interesting contrast between Spanish and Catalan on the one hand, and Italian, on the other. In the earliest RETURN + INF tokens

⁶ As argued by one of the reviewers of this paper, the change from spatial to discourse deixis in RETURN + INF constructions with a continuative function parallels the change in the development from spatial deictic to anaphoric reference. In Diessel’s (2012) words, “discourse deixis is based on the metaphorical structuring of time as space” (Diessel 2012: 2425), which is why “across languages, demonstratives are used as discourse deictics” (Diessel 2012: 2426).

in Spanish and Catalan, the use of speech acts verbs is the norm. However, over time the proportion of use of speech act verbs diminishes in favor of other verbs. This suggests that in these languages, the use of the RETURN + INF construction as a discourse marker decreased, becoming less frequent than the iterative function in the fourteenth century (Spanish) and fifteenth century (Catalan). In the modern stages of Spanish and Catalan, the use of RETURN + INF in this function is much less frequent than its use in the iterative function. The situation in Old Italian is rather different. Although RETURN + INF tokens with infinitives referring to speech acts make up a significant portion of the total number of tokens, they are much less frequent than in the older stages of the Ibero-Romance languages. In addition, there does not seem to be a significant diachronic trend from the use of speech act verbs in Italian RETURN + INF constructions towards the use of other verbs in these constructions.

5.2 Hypothesis 2: Clitic climbing

There are at least two reasons to assume that the possibility of clitic climbing in RETURN + INF constructions is intertwined with the grammaticalization of these constructions. First, as in the modern stages of these languages (see Section 3.2), clitic climbing has a clear influence on the interpretation of earlier Spanish, Catalan and Italian RETURN + INF constructions in that clitic climbing typically coincides with an interpretation of the construction as restitutive or repetitive (40)–(42).

(40) Old Spanish

el día sigüient los torna-uan a combater

the day following them return-PST.IPFV.3PL to fight

‘The following day they fought them again’

(*Gran crónica de España III*, second half 14th c., *apud* CORDE)

(41) Old Catalan

E per ço [...] vos torn-Ø a dir

And because.of this you return-PRS.1SG to say

que ací no ·s fa festa ne vigília

that here not REFL make.PRS.3SG party nor vigil

‘And I therefore tell you again that there we do not celebrate or have vigils here’

(*Decamerò*, first half 15th c., *apud* CICA)

(42) Old Italian

lo torna-sse a vedere un'altra volta
 him return-PST.SBJ.3SG to see another time
 '[that he would] see him again another time'
 (*Storia di Merlino*, first half 14th c., *apud* OVI)

Second, cases in which the clitic is not an argument of the infinitive (classified as “0 = no.clitic”) necessarily have a locative reading, as illustrated in the Spanish Examples (43)–(44).

(43) Old Spanish

e sal-ié Aarón con él a escorrir=le fasta
 and leave-PST.IPFV.3SG Aron with him to escape=DAT until
fuera de toda la hueste, desí que=s torna-va
 away from all the army after that=REFL return-PST.IPFV.3SG
a acabar los otros sacrificios
 to finish the other sacrifices
 ‘And Aron left with him to help him escape away from the army, after he
 had returned to finish the other sacrifices’
 (*General estoria I*, second half 13th c., *apud* CORDE)

(44) Old Spanish

en manera que toda la corte se torn-ó
 in way that all the court REFL turn-PST.PFV.3SG
a mirar=los (DTL)
 to look.at=them
 ‘So that the whole court turned to look at them’
 (*Décadas de Tito Livio*, first half 14th c., *apud* CORDE)

These observations appear to support Hypothesis 2, the assumption that over time, clitic climbing becomes more frequent in RETURN + INF constructions. Table 4 illustrates the historical development of RETURN + INF constructions in Spanish, Catalan and Italian as a function of clitic climbing.

Table 4 illustrates that in Spanish and Catalan RETURN + INF constructions, clitic climbing (both to the midway position and preposed position) becomes more frequent over time, confirming Hypothesis 2. In Spanish, clitic climbing cases increase in relative frequency from a combined 0.58 percent in the thirteenth century to a combined 39.24 percent in the seventeenth century. In Catalan, clitic climbing increases in relative frequency from zero in the thirteenth century to a combined 27.03 percent in the sixteenth century. Although

Table 4: Development of RETURN + INF constructions as a function of clitic climbing.

	1200–1299	1300–1399	1400–1499	1500–1599	1600–1699
SPANISH					
0=no.clitic	92.40 % (158)	86.96 % (40)	74.71 % (260)	51.81 % (572)	55.06 % (87)
1=clitic.in.situ	7.02 % (12)	2.17 % (1)	2.01 % (7)	3.26 % (36)	5.70 % (9)
2=clitic.midway	0.58 % (1)	8.70 % (4)	8.33 % (29)	7.88 % (87)	6.96 % (11)
3=clitic. preposed	0 % (0)	2.17 % (1)	14.94 % (52)	37.05 % (409)	32.28 % (51)
Total	171	46	348	1104	158
CATALAN					
0=no.clitic	100 % (9)	98.31 % (58)	71.61 % (111)	62.16 % (23)	33.33 % (1)
1=clitic.in.situ	0 % (0)	0 % (0)	1.29 % (2)	10.81 % (4)	0 % (0)
2=clitic.midway	0 % (0)	1.69 % (1)	1.94 % (3)	0 % (0)	0 % (0)
3=clitic. preposed	0 % (0)	0 % (0)	25.16 % (39)	27.03 % (10)	66.67 % (2)
Total	9	59	155	37	3
ITALIAN					
0=no.clitic	33.33 % (1)	86.96 % (75)	38.46 % (5)	60.68 % (142)	59.38 % (19)
1=clitic.in.situ	0.00 % (0)	2.17 % (7)	23.08 % (3)	18.38 % (43)	15.62 % (5)
2=clitic.midway	33.33 % (1)	8.70 % (3)	15.38 % (2)	2.56 % (6)	6.25 % (2)
3=clitic. preposed	33.33 % (1)	2.17 % (12)	23.08 % (3)	18.38 % (43)	18.75 % (6)
Total	3	97	13	234	32

the same tendency can be observed in the Italian data, the increase is smaller. In Italian, clitic climbing cases increase in relative frequency from a combined 10.87 percent in the fourteenth century to a combined 25 percent in the seventeenth century. The difference between the developments in the Ibero-Romance languages and Italian once again points to the difference in the degree to which RETURN + INF constructions have grammaticalized in Spanish and Catalan on the one hand, and Italian on the other.

5.3 Hypothesis 3: Interplay between actionality and CC

It was argued in Section 3.2 that in order to document the change from a restitutive to a repetitive iterative reading, it is necessary to measure the interplay between actionality and clitic climbing. If the repetitive function indeed evolved out of the restitutive function in RETURN + INF constructions, RETURN + INF constructions, formed from predicate classes that favor a

restitutive reading (i. e., states, achievements, and accomplishments), should display restructuring earlier than RETURN + INF constructions formed from predicate classes that disfavor a restitutive reading (i. e., activities). Tables 5–7 illustrate the interplay between actionality and clitic climbing in the development of RETURN + INF constructions in Spanish and Catalan.

Table 5: Interplay between actionality and clitic climbing in the development of RETURN + INF constructions in Spanish.

	1200–1299	1300–1399	1400–1499	1500–1599	1600–1699
ACTIVITY PREDICATES					
0 = no.clitic	93.15 % (136)	93.55 % (29)	86.81 % (158)	60.71 % (153)	82.14 % (23)
1 = clitic.in.situ	6.16 % (9)	3.23 % (1)	1.65 % (3)	1.98 % (5)	3.57 % (1)
2 = clitic.midway	0.68 % (1)	0 % (0)	5.49 % (10)	4.76 % (12)	10.71 % (3)
3 = clitic. preposed	0 % (0)	3.23 % (1)	6.04 % (11)	32.54 % (82)	3.57 % (1)
Total	146	31	182	252	28
STATE/ACHIEVEMENT/ACCOMPLISHMENT PREDICATES					
0 = no.clitic	88.00 % (22)	73.33 % (11)	61.45 % (102)	49.18 % (419)	49.23 % (64)
1 = clitic.in.situ	12.00 % (3)	0.00 % (0)	2.41 % (4)	3.64 % (31)	6.15 % (8)
2 = clitic.midway	0.00 % (0)	26.67 % (4)	11.45 % (19)	8.80 % (75)	6.15 % (8)
3 = clitic. preposed	0.00 % (0)	0.00 % (0)	24.69 % (41)	38.38 % (327)	38.46 % (50)
Total	25	15	166	852	130

Table 6: Interplay between actionality and clitic climbing in the development of RETURN + INF constructions in Catalan.

	1200–1299	1300–1399	1400–1499	1500–1599	1600–1699
ACTIVITY PREDICATES					
0 = no.clitic	100 % (9)	100 % (57)	79.59 % (78)	66.67 % (8)	0.00 % (0)
1 = clitic.in.situ	0.00 % (0)	0.00 % (0)	0.00 % (0)	8.33 % (1)	0.00 % (0)
2 = clitic.midway	0.00 % (0)	0.00 % (0)	2.04 % (2)	0.00 % (0)	0.00 % (0)
3 = clitic.preposed	0.00 % (0)	0.00 % (0)	18.37 % (18)	25 % (3)	100 % (2)
Total	9	57	98	12	2
STATE/ACHIEVEMENT/ACCOMPLISHMENT PREDICATES					
0 = no.clitic	NA (0)	50 % (1)	57.89 % (33)	60.00 % (15)	100 % (1)
1 = clitic.in.situ	NA (0)	0.00 % (0)	3.51 % (2)	12.00 % (3)	0.00 % (0)
2 = clitic.midway	NA (0)	50 % (1)	1.75 % (1)	0.00 % (0)	0.00 % (0)
3 = clitic.preposed	NA (0)	0.00 % (0)	36.84 % (21)	28.00 % (7)	0 % (0)
Total	0	2	57	25	1

Table 7: Interplay between actionality and clitic climbing in the development of RETURN + INF constructions in Italian.

	1200–1299	1300–1399	1400–1499	1500–1599	1600–1699
ACTIVITY PREDICATES					
0 = no.clitic	0.00 % (0)	94.11 % (48)	16.67 % (1)	65.74 % (71)	66.67 % (12)
1 = clitic.in.situ	0.00 % (0)	1.96 % (1)	33.33 % (2)	13.89 % (15)	11.11 % (2)
2 = clitic.midway	100.00 % (1)	0.00 % (0)	16.67 % (1)	1.85 % (2)	5.56 % (1)
3 = clitic.preposed	0.00 % (0)	3.92 % (2)	33.33 % (2)	18.51 % (20)	16.67 % (3)
Total	1	51	6	108	18
STATE/ACHIEVEMENT/ACCOMPLISHMENT PREDICATES					
0 = no.clitic	50.00 % (1)	58.70 % (27)	57.14 % (4)	56.35 % (71)	50.00 % (7)
1 = clitic.in.situ	0.00 % (0)	13.04 % (6)	14.29 % (1)	22.22 % (28)	21.42 % (3)
2 = clitic.midway	0.00 % (0)	6.52 % (3)	14.29 % (1)	3.18 % (4)	7.14 % (1)
3 = clitic.preposed	50.00 % (1)	21.74 % (10)	14.29 % (1)	18.25 % (23)	21.43 % (3)
Total	2	46	7	126	14

For Spanish, Table 5 shows that activity predicates acquire clitic climbing later than other predicate types. For instance, whereas in the fourteenth century Spanish texts clitic climbing is attested in 26.67 percent of RETURN + INF constructions with state/achievement/accomplishment predicates, but with activity predicates this number drops to 3.23 percent. In the Catalan data in Table 6, RETURN + INF constructions only start appearing with state/achievement/accomplishment in the fifteenth century. However, already at this point clitic climbing is attested in a total of 38.59 percent of RETURN + INF constructions with state/achievement/accomplishment predicates, while for activity predicates clitic climbing is only attested in a total of 20.41 percent of the cases. The same trend can be found in the Italian data in Table 7. Looking at the fourteenth century, we find that whereas clitic climbing is attested in a total of 28.26 percent of RETURN + INF constructions with state/achievement/accomplishment predicates, for activity predicates clitic climbing is only attested in 3.92 percent of the cases.

5.4 Inferential statistical analysis

As pointed out in Section 4.3, due to the fact that frequency distributions can always be epiphenomenal, the inspection of the frequency distributions in itself is not sufficient to prove whether the relevant predictions apply. Table 8 summarizes the results from the regression models. The crucial values in the description of the results are the coefficient (Est.) and the

p-value (p).⁷ The coefficient indicates the influence of the predictor variable on the dependent variable time (in comparison to the reference level). For instance, in the regression model for Spanish, the coefficient of -0.396 for the variable ACTIVITY indicates that in comparison to states, achievements and accomplishments (ACTIVITY = FALSE), activities (ACTIVITY = TRUE) occur earlier in RETURN + INF constructions (specifically, to the degree of 0.396 on the TIME variable, i. e., around 40 years). The p-value refers to whether or not the influence of the dependent variable is statistically significant, where a p-value smaller than $.05$ indicates statistical significance, thus ruling out the possibility that the observed effect is due to chance. In the Spanish regression model, the variable ACTIVITY shows a p-value of $<.001$, indicating high statistical significance.

Table 8: Generalized linear mixed-effects regression analysis for Spanish, Catalan, and Italian.

VARIABLE	LEVEL	SPANISH		CATALAN		ITALIAN	
		Est.	p	Est.	p	Est.	p
Intercept		3.791	0.000	3.346	0.000	3.676	0.000
Activity	FALSE	<i>Reference level</i>		<i>Reference level</i>		<i>Reference level</i>	
	TRUE	-0.396	0.000	-0.254	0.018	-0.107	0.467
CC	0 = no.clitic	<i>Reference level</i>		<i>Reference level</i>		<i>Reference level</i>	
	1 = clitic.in.situ	0.076	0.522	0.354	0.128	0.115	0.520
	2 = clitic.midway	0.001	0.988	-0.809	0.028	-0.281	0.377
	3 = clitic.preposed	0.182	0.000	-0.055	0.662	-0.037	0.834
CC x activity	0 = no.clitic x ActivityTRUE	<i>Reference level</i>		<i>Reference level</i>		<i>Reference level</i>	
	1 = clitic.in.situ x ActivityTRUE	-0.449	0.034	0.554	0.357	0.325	0.244
	2 = clitic.midway x ActivityTRUE	0.119	0.497	0.858	0.084	0.330	0.534
	3 = clitic.preposed x ActivityTRUE	0.214	0.035	0.479	0.004	0.629	0.015

The results from the regression analysis can be described as follows. First, as indicated by the negative coefficients of ACTIVITY (-0.396 and -0.254), Spanish and Catalan RETURN + INF constructions appear significantly earlier with activity predicates than with other predicates. In the model for Italian, this effect does not reach statistical significance. This might reflect the observation from the quantitative survey in Section 5.1 that Italian RETURN + INF constructions are bound to activity predicates considerably longer than Spanish and Catalan RETURN + INF constructions.

⁷ The p-values were calculated using the R-package *lmerTest* by Alexandra Kuznetsova, Per Bruun Brockhoff, and Rune Haubo Bojesen Christensen.

Second, Spanish RETURN + INF constructions with preposed clitics appear significantly later in time, with a positive coefficient of 0.182. No comparable significant effects are found for Catalan and Italian. Note however that the lack of the main effect for CC can be explained by reference to the interaction between CC and ACTIVITY, which reduces the effect strength of the main effect CC. A second regression analysis for Catalan and Italian in which the interaction effect was left out indeed revealed statistical significance for the level “3=clitic, preposed” in both languages in the same way as in Spanish. This strongly suggests that with more data, the effect would acquire statistical significance in the complete model as well.

Third, the results coincide for all three languages regarding the interaction between CC and ACTIVITY. In the RETURN + INF constructions from all three languages, activity predicates start appearing with preposed clitics significantly later than state, achievement, and accomplishment predicates. In addition, it is interesting to note that the strength of the effect (in terms of the value for *Est.*) differs. Thus, the effect size is smallest for Spanish (0.214) and greatest for Italian (0.629), with Catalan in between (0.479). This can be taken to suggest differences in the speed of grammaticalization of RETURN + INF constructions in the three languages: the lexical expansion from state/achievement/accomplishment predicates to activity predicates was fastest for Spanish (around 21 years), slower for Catalan (around 48 years) and slowest for Italian (around 63 years).⁸ These differences in the chronology of the development of RETURN + INF constructions are apparently once again correlated with productivity differences in the modern stages of these languages.

The inferential analysis presented in this section has thus added to the overall analysis in that it has demonstrated that most of the results from the descriptive analysis are not due to chance but are robust trends that show statistical significance.

6 Discussion of results

From the descriptive and inferential analyses presented in the last section, the following panorama of the development of RETURN + INF constructions emerges. Hypothesis 1 (RETURN + INF constructions are attested earlier state/

⁸ Linear regression models like the one conducted in this study differ from logistic regression models in that they are not affected by omitted variables (see Mood 2010). This means that in contrast to logistic regression models, it is possible to compare effect sizes across different regression models without having to compute marginal effects.

achievement/accomplishment predicates than with activity predicates) was clearly not confirmed by the analysis. Rather, the analysis demonstrated that in older stages of Spanish, Catalan and Italian, most RETURN + INF constructions express either a motion event meaning, or a “continuative” meaning that serves to resume a previous topic in the text and that might be metaphorically derived from the motion event meaning. However, the analysis confirmed the expectation of a diachronic trend towards the use of clitic climbing in Romance RETURN + INF constructions (Hypothesis 2). This finding suggests that the grammaticalization of Romance RETURN + INF constructions was accompanied by a restructuring process mirroring the loss of syntactic autonomy of the verb *tomar* (*e*) in these constructions. Most importantly, however, the analysis provided empirical evidence for the assumption that the expansion of the use of clitic climbing affected state/achievement/accomplishment predicates before activity predicates. This goes to show that the semantic change from the motion event reading to the iterative reading did not start in the type of early RETURN + INF constructions characterized as “continuative” nor in other early RETURN + INF constructions with activity predicates. Rather, the analysis suggests that the first type of RETURN + INF tokens that allowed for an iterative interpretation were RETURN + INF tokens with state, achievement or accomplishment predicates, such as the early token in (12) at the end of Section 2. In the grammaticalized iterative function, RETURN + INF occurred later with activity predicates than with these other predicates. In other words, the grammaticalization of RETURN + INF was bound to its use with predicates that allow for both a restitutive and a repetitive reading. The grammaticalization of RETURN + INF with activity predicates occurred at a later point in time. This finding supports the assumption of a grammaticalization path in which the restitutive iterative meaning preceded the repetitive iterative meaning, as illustrated in (45).

(45) Change of location > Restitution > Repetition

The analyses from the last section also suggest that this grammaticalization process was much slower in Italian than in Spanish and Catalan. It can be hypothesized that these differences in the historical development of iterative constructions can also be explained by recurring to the distinction between restitutive and repetitive. In Romance languages, three major types of iterative expressions can be identified: RETURN + INF constructions, *re-* prefixes and *again*-adverbials. Interestingly, there appears to be an inverse correlation between the possibility for *re-* prefixes and RETURN + INF constructions to express restitution and repetition. Consider the following examples from Catalan (Gavarró and Laca 2002: 2702):

(46) Catalan

Van re=obrir un procès contra aquest polític.
 GO.PRS.3PL again=open a trial against this politics
 ‘They reopened a trial against these politics’
 * ‘They again opened a trial against these politics’

(47) Catalan

Van tornar a obrir un procès contra aquest polític.
 GO.PRS.3PL return to open a trial against this politics
 ‘They reopened a trial against these politics’
 ‘They again opened a trial against these politics’

According to Gavarró and Laca, *un procès* in (46) can only refer to the same trial and not a new, different, trial:

...the verbs with the prefix *-re* do not admit variation regarding the reference of the indefinite expressions: in *Van reobrir un process contra aquest polític*, the speaker is necessarily referring to the same trial, whereas in *Van tornar a obrir un procés contra aquest polític* it is possible that the speaker refers to two different trials. (Gavarró and Laca 2002: 2702, transl. MR)

In other words, the *re-* prefix appears to exclude a repetitive reading in Modern Catalan, whereas the RETURN + INF construction in (47) can receive either reading. However, in Modern French (48) and Italian (49) the *re-* prefix appears to allow a repetitive reading:

(48) French

il pen-sait que cela pou-vait ré=ouvrir un
 he think-PST.IPFV.3SG that this can-PST.IPFV.3SG again=open a
nouveau procès sur l’Affaire Dreyfus
 new trial about the=affair Dreyfus
 ‘he thinks that this will again open a new trial about the Dreyfus affair’
 (<http://lewebpedagogique.com/affairejudiciaire>, accessed 14 April 2015)

(49) Italian

...si può solo ri=aprire un nuovo processo
 REFL can.PRS.3SG only again=open a new trial
 ‘...one can only again open a new trial’
 (<http://doc.studenti.it/podcast/avviso-di-conclusione-delle-indagini.html>,
 accessed 17 July 2014)

Consequently, it appears that in Romance languages, there is a paradigmatic opposition between prefixation with *re-* and RETURN + INF constructions that concerns the distinction between restitutive and repetitive readings: if a language has a highly productive RETURN + INF construction, prefixation with *re-* can be applied in fewer usage contexts. This hypothesis might have explanatory potential for the finding from this paper that in comparison to Spanish and Catalan, the grammaticalization of Italian RETURN + INF constructions was a slower and weaker process. It would be very interesting for future studies to address this topic in depth.

It is also important to address the limitations of the approach taken in this study. First, it should be noted that especially the Catalan and Italian corpora of RETURN + INF constructions used in this study are rather small in size. As shown in the section on the inferential statistical analysis (5.2), it is possibly because of the small size of these corpora that in the regression models for Catalan and Italian, some of the levels of “clitic climbing” did not reach statistical significance after the inclusion of the interaction between clitic climbing and actionality. Collecting further data, possibly from other text genres, of Catalan and Italian RETURN + INF constructions could remedy this problem. A second point that is also due to the limited size of the corpora used concerns the range of contextual variables that were investigated. Specifically, it is possible that the effects observed in the analysis change if other contextual variables are included. For instance, it might be interesting to analyze aspectual morphology (in particular, perfective vs. imperfective aspect) on the auxiliary, since aspect may have an influence on the interpretation of a RETURN + INF construction as restitutive or repetitive.

7 Conclusion and outlook

This paper has established and validated the hypothesis that in the grammaticalization of three Romance RETURN + INF constructions, restitutive meanings preceded repetitive meanings. Besides giving a detailed description of the historical trajectory of these constructions, the paper has raised at least three points that might serve to further advance our knowledge of language change.

First, the hypothesis of the restitutive – repetitive pathway in the grammaticalization of RETURN + INF constructions was partly based on the observations by Fabricius-Hansen (2001) and Wälchli (2006) that the restitutive meaning appears to be more primary for adverbials with the meaning ‘again’ than the repetitive meaning. Consequently, the results of this study could be taken to

suggest that the historical tendency observed for RETURN + INF constructions might also apply to AGAIN-adverbials.

Second, I observed a potential correlation between the degree to which the semantic change from restitutive to repetitive meanings was implemented in RETURN + INF constructions and the possibility to use prefixation with *-re viz. -ri* in the Romance languages with a repetitive meaning. It would be interesting for further studies to test the validity of this assumption, as well as its implications for the historical development of the prefixation with *-re viz. -ri* in Romance and other languages.

Third, the paper has suggested a new and innovative methodology that combines functional and formal explanations of language change in order to describe the grammaticalization of a construction. It has also elaborated a statistical method that makes use of this combination of parameters to model functional change in constructions and compare these processes of change across languages.

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References

- Baayen, Harald. 2008. *Analyzing linguistic data: A practical introduction to statistics using R*. Cambridge: Cambridge University Press.
- Batllori, Montserrat, Narcís Iglésias & Ana Maria Martins. 2004. L' ordre de clítics en català antic: morfologia i sintaxi dels clítics pronominals en català medieval. In *Contribucions a congressos (D-FL)*. Girona: Universitat Girona. <http://hdl.handle.net/10256/3953> (accessed 29 September 2014).
- Berta, Tibor. 2000. La subida de clítics en español medieval y en español moderno. *Acta Hispanica* 5. 83–98.
- Bertinetto, Pier Marco. 1991. Il verbo. In Lorenzo Renzi, Giampaolo Salvi & Anna Cardinaletti (eds.), *Grande grammatica italiana di consultazione*, vol. II (I sintagmi verbale, aggettivale, avverbiale. La subordinazione), 13–161. Bologna: Il Mulino.

- Bertinetto, Pier Marco. 2001. On a frequent misunderstanding in the temporal-aspectual domain: the 'perfective = telic confusion'. In Carlo Cechetto, Gennaro Chierchia & Maria Teresa Guasti (eds.), *Semantic interfaces [Reference, anaphora and aspect]*, 177–210. Stanford: CLSI.
- Bortz, Jürgen & Christof Schuster. 2010. *Statistik für Human- und Sozialwissenschaftler*, 7th edn. Berlin & Heidelberg: Springer.
- Centro Interuniversitario Biblioteca Italiana Telematica. 2014. *Biblioteca italiana telematica*. <http://www.bibliotecaitaliana.it> (accessed 26 September 2014).
- Diessel, Holger. 2012. Deixis and demonstratives. In Claudia Maienborn, Klaus von Heusinger & Paul Portner (eds.), *Semantics: an international handbook of natural language meaning*, 2407–2431. Berlin & New York: De Gruyter.
- Diewald, Gabriele. 2002. A model for relevant types of contexts in grammaticalization. In Ilse Wischer & Gabriele Diewald (eds.), *New reflections on grammaticalization*, 103–120. Amsterdam & Philadelphia: John Benjamins.
- Diewald, Gabriele. 2006. Context types in grammaticalization as constructions. *Constructions* 1(9). <http://elanguage.net/journals/constructions/article/view/24> (accessed 13 April 2015).
- Eberenz, Rolf. 1997. *Tornar/volver y descender/bajar*: orígenes de dos relevos léxicos. In Claudio García Turza, Fabián González Bachiller & Javier Mangado Martínez (eds.), *Actas del IV congreso internacional de historia de la lengua española*, vol. II, 109–125. Logroño: AHLE.
- Fabricius-Hansen, Cathrine. 1980. Lexikalische Dekomposition, Bedeutungspostulate und wieder: Ein Beitrag zu einer Montague-Grammatik des Deutschen. In Dieter Kastovsky (ed.), *Perspektiven der lexikalischen Semantik*, 26–40. Bonn: Bouvier.
- Fabricius-Hansen, Cathrine. 2001. Wi(e)der and Again(st). In Caroline Fery & Wolfgang Sternefeld (eds.), *Audiatur vox sapientiae: A festschrift for Arnim von Stechow*, 101–130. Berlin: Akademie Verlag.
- Fischer, Susann. 2002. *The Catalan clitic system: A diachronic perspective on its syntax and phonology*. Berlin & New York: Mouton de Gruyter.
- Fischer, Susann. 2003. Rethinking the Tobler-Mussafia Law. Data from Old Catalan. *Diachronica* 20(2). 259–288.
- Garachana Camarero, Mar & Malte Rosemeyer. 2011. Rutinas léxicas en el cambio gramatical. El caso de las perífrasis deónticas e iterativas. *Revista de Historia de la Lengua Española* 6. 35–60.
- García Fernández, Luis, Ángeles Carrasco Gutiérrez, Bruno Camus Bergareche, María Martínez Atienza & María Ángeles García Serrano (eds.). 2006. *Diccionario de perífrasis verbales*. Madrid: Gredos.
- Gavarró, Anna & Brenda Laca. 2002. Les perífrasis temporals, aspectuals i modals. In Joan Solà, Maria-Rosa Lloret, Joan Mascaró & Manuel Pérez Saldanya (eds.), *Gramàtica del català contemporani*, 2663–2726. Barcelona: Empúries.
- Giacalone Ramat, Anna. 2001. Emergent auxiliaries and the theory of grammaticalization. In Chris Schaner-Wolles, John Rennison & Friedrich Neubarth (eds.), *Naturally! Linguistic studies in honour of Wolfgang Ulrich Dressler presented on the occasion of his 60th birthday*, 121–131. Turin: Rosenberg & Sellier.
- Gómez Torrego, Leonardo. 1999. Los verbos auxiliares. Las perífrasis verbales de infinitivo. In Ignacio Bosque & Violeta Demonte (eds.), *Gramática descriptiva de la lengua española*, vol. II, 3323–3388. Madrid: Espasa Calpe.
- González Cobas, Jacinto. 2010. Procedimientos de organización textual en la prosa alfonsí. *Cahiers d'études hispaniques médiévales* 33. 197–213.

- Heine, Bernd. 2002. On the role of context in grammaticalization. In Ilse Wischer & Gabriele Diewald (eds.), *New reflections on grammaticalization*, 83–101. Amsterdam & Philadelphia: John Benjamins.
- Heine, Bernd & Tania Kuteva. 2002. *World lexicon of grammaticalization*. Cambridge: Cambridge University Press.
- Hopper, Paul J. & Elizabeth C. Traugott. 2003. *Grammaticalization*, 2nd edn. Cambridge: Cambridge University Press.
- Iglesias, Olivier. 2012. *Le placement des clitiques dans les complexes verbaux en espagnol: Une nouvelle approche de la question*. Paris: Université Paris 8 dissertation.
- Istituto Opera del Vocabolario Italiano del Consiglio Nazionale delle Ricerche. 2014. *Corpus OVI dell'italiano antico*. <http://gattoweb.oivi.cnr.it> (accessed 14 July 2014).
- Jacobs, Bart. 2011. Present and historical perspectives on the Catalan *go*-past. *Zeitschrift für Katalanistik* 24. 227–255.
- Kamp, Hans & Antje Rossdeutscher. 1994. DRS-construction and lexically driven interference. *Theoretical Linguistics* 20(2/3). 165–235.
- Lamiroy, Béatrice & Walter De Mulder. 2011. Degrees of grammaticalization across languages. In Bernd Heine & Heiko Narrog (eds.), *The Oxford handbook of grammaticalization*, 302–317. Oxford: Oxford University Press.
- Lehmann, Christian. 1995. *Thoughts on grammaticalization*. Munich: Lincom Europa.
- Lichtenberk, Frantisek. 1991. Semantic change and heterosemy in grammaticalization. *Language* 67. 475–509.
- Meillet, Antoine. 1912. L'évolution des formes grammaticales. *Scientia (Rivista di Scienza)* 12 (26,6).
- Melis, Chantal. 2006. Verbos de movimiento. La formación de los futuros perifrásticos. In Concepción Company Company (ed.), *Sintaxis histórica de la lengua española*, vol. 1–2, 873–968. México: Universidad Nacional Autónoma de México.
- Mood, Carina. 2010. Logistic regression: Why we cannot do what we think we can do, and what we can do about it. *European Sociological Review* 26(1). 67–82.
- Moysse-Faurie, Claire. 2012. The concept 'return' as a source of different developments in Oceanic Languages. *Oceanic Linguistics* 51(1). 234–260.
- Olbertz, Hella. 1998. *Verbal periphrases in a functional grammar of Spanish*. Berlin & New York: Mouton de Gruyter.
- Parry, Mair. n. d. From motion verb to aspectual adverb via auxiliiation: Grammaticalization 'again'? Unpublished manuscript, University of Bristol.
- Pérez Saldanya, Manuel & José Ignacio Hualde. 2003. On the origin and evolution of the Catalan periphrastic preterite. In Claus Pusch & Andreas Wesch (eds.), *Verbalperiphrasen in den (ibero-)romanischen Sprachen = Perífrasis verbals en les llengües (ibero-)romàniques = Perífrasis verbales en las lenguas (ibero-)románicas*, 47–60. Hamburg: Buske.
- Pinheiro, Jose, Douglas Bates, Saikat DebRoy, Deepayan Sarkar & the R Development Core Team. 2015. *nlme: linear and nonlinear mixed effects models*. R package version 3.1.1-120.
- R Development Core Team. 2015. *R: a language and environment for statistical computing*. Vienna: R Foundation for Statistical Computing. <http://www.R-project.org> (accessed 14 April 2015).
- Real Academia Española. 2014. *Banco de datos (CORDE) [en línea]*. *Corpus diacrónico del español*. <http://www.rae.es> (accessed 14 July 2014).
- Rizzi, Luigi. 1976. Ristrutturazione. *Rivista di Grammatica Generativa* 1. 1–54.

- Ross, Dolores. 2006. Verbi in serie: una prospettiva tipologica. In Graziano Benelli & Giampaolo Tonini (eds.), *Studi in ricordo di Carmen Sánchez Montero*, vol. 2, 453–465. Trieste: EUT Edizioni Università di Trieste.
- Rossini Favretti, Rema. 2014. *Corpus di Italiano Scritto (CORIS)*. http://corpora.dslo.unibo.it/coris_eng.html (accessed 14 July 2014).
- Russi, Cinzia. 2008. *Italian clitics: an empirical study*. Berlin & New York: De Gruyter.
- Salvi, Giampaolo & Lorenzo Renzi. 2010. *Grammatica dell'italiano antico*. Bologna: Il mulino.
- Solà, Joan, Maria-Rosa Lloret, Joan Mascaró & Manuel Pérez-Saldanya (eds.). 2002. *Gramàtica del català contemporani*. Barcelona: Empúries.
- Stolova, Natalya I. 2005. The RETURN source domain and the iterative aspect in 16th-century Spanish. A corpus analysis of 'tornar/volver + preposition + infinitive'. In Alan Wallington, John A., Sheila R. Barnden, Mark Lee Clasbey & Li Zhang (eds.), *Proceedings of the third interdisciplinary workshop on corpus-based approaches to figurative language – Corpus Linguistics 2005*, 72–79. Birmingham: University of Birmingham.
- Torres Cacoullou, Rena. 1999. Construction frequency and reductive change: diachronic and register variation in Spanish clitic climbing. *Language Variation and Change* 11(2). 143–170.
- Torruella, Joan, Manuel Pérez-Saldanya, Josep Martines & Vincent Martines. 2013. Corpus informatitzat del català antic (CICA). <http://cica.cat> (accessed 10 January 2013).
- Traugott, Elizabeth C. & Graeme Trousdale. 2010. Gradience, gradualness and grammaticalization. How do they intersect? In Elizabeth C. Traugott & Graeme Trousdale (eds.), *Gradience, gradualness and grammaticalization*, 19–44. Amsterdam & Philadelphia: John Benjamins.
- Wälchli, Bernhard. 2006. Typology of light and heavy 'again', or, the eternal return of the same. *Studies in Language* 30(1). 69–113.
- Wanner, Dieter. 1981. Clitic placement from Old to Modern Italian: Morphologization of a syntactic rule. In William W. Cressey & Donna J. Napoli (eds.), *Linguistic symposium on Romance languages, IX*, 331–348. Washington, DC: Georgetown University Press.
- Wanner, Dieter. 1987. *The development of Romance clitic pronouns. From Latin to old Romance*. Berlin & New York: Mouton de Gruyter.
- Wheeler, Max, Alan Yates & Nicolau Dols. 1999. *Catalan: A comprehensive grammar*. London & New York: Routledge.
- Yllera, Alicia. 1980. Sintaxis histórica del verbo español: las perífrasis medievales. Zaragoza: Universidad de Zaragoza.