

THE MISSING DATIVE ALTERNATION IN ROMANCE: EXPLAINING
STABILITY AND CHANGE IN THE ARGUMENT STRUCTURE OF LATIN
DITRANSITIVESBy CHIARA FEDRIANI  AND MARIA NAPOLI 
University of Genova and University of Eastern Piedmont

(Submitted: 20 May, 2022)

ABSTRACT

This study explores the correlation between synchronic constructional variation shown by ditransitive verbs in Late Latin and (possible) diachronic developments, investigating the reasons why such developments did or did not occur throughout the history of this language. Starting from a comparison with the rise of the so-called ‘dative alternation’ in English, which emerged from a scenario that, apparently, was similar to the one found in Late Latin, we address the question as to why in the diachrony of this language such a linguistic phenomenon did not develop at all for some verbs and did not become productive for others – what we may call the ‘missing dative alternation’ in Romance. Drawing on a corpus-based study of six verbs instantiating different types of ditransitive constructions since Early Latin, we show that each form has its own history, attesting to different instances of stability and/or change in its argument structure. We will also argue that when individual histories of single forms eventually converge on the same result, as happened in Romance, a comprehensive explanation is also needed. This study suggests such an explanation by shedding light on different functional motivations that triggered specific pathways of change and disfavoured other possible developments.

1. INTRODUCTION

This study¹ analyses the argument structure of Late Latin trivalent verbs of transfer – labelled here with the typological term of *ditransitives* –, a privileged laboratory to explore an intriguing case of language change, considered at a crucial developmental stage in the long diachrony between Latin and Romance. Since Early Latin, these verbs differ in the encoding of the two arguments corresponding to the thing transferred and the Recipient, intended as the human endpoint of the event of transfer. A few verbs, like *doceo* ‘to teach’ and *flagito* ‘to demand (fiercely), to entreat’, are characterized by a double object construction since they take the accusative – the case of the direct object – for both these arguments. At the same time, some of these verbs show a *dative alternation* since they admit both the double object

¹ We are grateful to two anonymous reviewers for their careful reading and precious remarks. We are also most grateful to José Miguel Baños Baños and Giovanbattista Galdi, who read a previous version of this work and whose observations and questions led to significant improvement of this article. Thanks are due to Lene Schøsler for helping us with bibliographical material. This article was written as part of the University of Bergamo PRIN Project ‘Writing expertise as a dynamic sociolinguistic force: the emergence and development of Italian communities of discourse in Late Antiquity and the Middle Ages and their impact on languages and societies’: we wish to thank the Principal Investigator, Piera Molinelli. Chiara Fedriani is responsible for Sections 1, 4, 5, 5.1, 5.1.1, 5.1.2, 5.3.2, 6, and 6.1, and Maria Napoli is responsible for Sections 2, 3, 5.2, 5.2.1, 5.2.2, 5.3, 5.3.1, and 6.2.

construction and a prepositional encoding of the Recipient through *ab* ‘from’ + ablative, as exemplified by the occurrences of *flagito* in (1) and (2):

- (1) *Interim cotidie Caesar Aeduos frumentum* [...] *flagitare*
 meanwhile daily Caesar-NOM A.-ACC.PL corn-ACC.SG demand-INF.PRS
 ‘Meanwhile Caesar was daily demanding the corn from the Aedui’.² (Caes. *Gall.* 1, 16, 1)
- (2) *Sed unicum miser abs te filium*
 but only-ACC.SG unhappy-NOM.SG from you-ABL.SG son-ACC.SG
optimum atque innocentissimum flagitat
 noble-ACC.SG and innocent-IND.ACC.SG.SUP demand-IND.PRS.3SG
 ‘It is his only son whom this unhappy man demands of you, his noble and wholly innocent son’. (Cic. *Verr.* 2, 5, 128)

This scenario of constructional variation, however, did not give rise to diachronic persistence, and the alternation got lost in later periods – what we might call the ‘missing dative alternation’ in Romance, for the reasons which should appear clearer below.

Verbs like *do* ‘to give’, in turn, encode the transferred object with the accusative and the Recipient with the dative – although with some of them the dative may be substituted by a construction made up of *ad* ‘to’ + accusative, namely the strategy typically used with movement verbs directed towards a goal that later grammaticalized in the Romance languages for the expression of the Recipient. Many studies have shown the synchronic and diachronic relationship of markers with *allative* function, basically expressing direction, with the semantic role of Recipient: this relationship is generally interpreted as due to semantic extensions from the notion of directional movement, Recipients being represented as metaphorical destinations (see Section 4). From this perspective, it could appear that this paper deals with a well-known change in the transition from Latin to Romance, namely the substitution of the dative case with the form derived from the Latin allative preposition *ad*. However, our study tackles this issue from a broader point of view, starting from the different argument structures of Latin ditransitives. As we have just seen, these verbs showed interesting forms of constructional variation that, in principle, could have survived in Romance but did not. Specifically, the aim of this paper is to discuss the correlation between such synchronic constructional variation in the domain of argument structure and (possible) diachronic developments, exploring the reasons why such developments *did* or *did not occur*. In order to do this, we shall examine the argument structure of Late Latin ditransitives from a diachronic point of view through the lens of the concepts of *stability* – understood as both the absence of any modification and stable variation (cf. Dahl 2004: 261; Bouzouita et al. 2019: 8) – and *change*.

We will first examine the diachrony of ditransitive constructions in Latin, then we will evaluate their Romance outcomes also in comparison with English, where, starting from a similar scenario, ditransitives followed a different path of change. It will be shown that, apart from the ‘macro-tendencies’ and the ‘macro-changes’ which are, more or less, under the eyes of the researchers, also individual tendencies and individual changes count in order to understand how languages evolve, where ‘individual’ refers not only to single authors (Petré & Van de Velde 2018; Coleman 2020; Stein 2020) but also to single verbs, suggesting the conclusion that each form has its own history (or at least, it may have, in the specific synchronic stage analysed), and confirming, once more, that ‘the past helps us to explain the past’ (Mancini 2019: 47). However, when individual histories of individual forms finally converge on the same result, as happened in Romance, a comprehensive explanation is also

² Translations of Latin examples are our own, with the exception of examples (1), (2), and (15a), which are based on the translations to be found in the Loeb series, and (8), which is after Thorpe (1974). The abbreviations used in the glosses follow the Leipzig Glossing Rules (<https://www.eva.mpg.de/lingua/resources/glossing-rules.php>).

needed. In our contribution, we aim at providing this explanation by shedding light on the various functional factors that favoured specific developmental pathways and disfavoured other possible developments.

The present study is structured as follows. Section 2 introduces some preliminary issues relevant to our investigation, focusing on the typological definition of ditransitive constructions and alignments and on the dative alternation; then, it illustrates the Latin verbs and the textual corpus on which the analysis is based. Section 3 briefly describes the types of ditransitive constructions attested in Latin. Section 4 sums up the state of the art regarding the phenomenon of the replacement of the Latin dative with the ‘*ad* + accusative’ construction, with a special focus on late antiquity. In Section 5, the Late Latin data from our corpus are presented taking the diachronic perspective into account, namely analysing the behaviour of the six verbs examined here in terms of stability and/or change. The results of this analysis are discussed in Section 6, where the transition from Latin to Romance is compared to the transition from Old to Modern English in light of the functional mechanisms assumed here to be relevant to argument structure changes.

2. THEORETICAL AND METHODOLOGICAL PREMISES

Following a typological approach, the label ‘ditransitive’ is used here as a semantic notion to denote those trivalent constructions in which verbs express an event of transfer. The prototypical meaning of ditransitives is the expression of a *physical possessive transfer*, whereby an Agent (henceforth A) causes an object, called Theme (T), to enter into the possession of a receiver, called Recipient (R), who is generally animate (Malchukov et al. 2010: 2). This can be exemplified by verbs such as English *give*, *donate*, and *offer* that are situated at the semantic core of the category of ditransitives. However, this category may also include trivalent predicates expressing *cognitive transfer* (e.g. Engl. *show*, *tell*, *teach*), with which the receiver is a ‘recipient-like argument’ (Malchukov et al. 2010: 2) and is typically high on the scale of both animacy and affectedness. Across languages, verbs of *dispossession* (e.g. Engl. *steal*, *rob*, and *hide*) often partake of the same syntactic schemas as verbs of possessive transfer. From a semantic point of view, dispossession verbs still presuppose an event of transfer, albeit inverted or blocked, with the consequence that they cannot properly be said to take an argument corresponding to the R: as pointed out in Napoli (Napoli 2020a: 101–102), ‘the third argument of these verbs is not a person who *receives* something but exactly the opposite, that is to say, a person *from whom* something is taken away (physically or cognitively)’, or, in other words, a ‘reverse-R’.³ However, as in many typological studies, the term ‘Recipient’ will be maintained here to denote the third argument of ditransitive verbs of dispossession. We are aware of their semantic peculiarity, which may have syntactic consequences on the verbal argument structure and, more precisely, on the encoding of the R, as we shall see in Section 5.2 with regard to Latin ditransitives.

The diversity of ditransitive constructions may be captured by the notion of *alignment*. Alignment types result from a comparison of the ways in which the main arguments of verbs are encoded (Dryer 1986; Haspelmath 2005; Comrie 2013; Siewierska 2013). In applying the notion of alignment to ditransitive verbs, the formal expression of the Patient of monotransitives (henceforth P) is compared to the way in which the two non-agentive arguments of ditransitives, T and R, are codified.⁴ In relation to this, we may distinguish

³ The reader is referred to Napoli (2020a: 101–102) also for a discussion of the proposal to interpret the third argument of dispossession verbs as a *malefactive source*, and of the reasons why this proposal cannot be accepted, in the light of the fact that these verbs do not necessarily have a malefactive reading.

⁴ Here, we use the label ‘Patient’ to refer to the second argument of transitive verbs, and ‘Theme’ to refer to the typical inanimate argument of trivalent verbs.

between three main alignment types (and corresponding constructions) across languages, as exemplified in Table 1: (i) *indirective*, in which the T of a ditransitive verb and the P of a monotransitive verb receive the same encoding, while the R is expressed differently; (ii) *secundative*, in which the R of a ditransitive verb and the P of a monotransitive verb receive the same encoding, while the T is expressed differently; (iii) *neutral*, where T, R and P receive the same encoding.⁵

In English, as in other languages, many ditransitives allow the phenomenon known as dative alternation, which means that they admit both an indirect object construction (henceforth IOC) as in (3a), where the R is encoded as a prepositional object introduced by *to*, and a double object construction (DOC) as in (3b), where the R and the T are encoded as a direct object:⁶

- (3) a. *Johns teaches linguistics to advanced students*
 b. *Johns teaches advanced students linguistics*

In contrast with Latin, where the R of ditransitives may be expressed by case markings (through the dative or the accusative) or may be introduced by some prepositions (mainly *ad* ‘to’ or *ab* ‘from’), determining the co-existence of different constructions (see Section 3), Romance languages do not have a DOC that can be compared to the English example in (3b).⁷

The macro-scenario concerning the transition from Latin is well known. In Romance, case markings on nouns are lost and are mainly substituted by prepositions.⁸ The expression of the R with ditransitives is entrusted to an IOC, namely a prepositional construction made up of *à/ a + noun/pronoun*, derived from the Latin ‘*ad + accusative*’ construction, although pronouns may also be used in their clitic dative form.

In other words, in contrast to the situation of constructional variation that is well attested for Latin ditransitives from the beginnings to late antiquity, a single construction prevailed in the Romance languages, the main result being that no dative alternation arose. However, on the basis of the data available from Late Latin, we could conclude that the conditions for such a development apparently applied, similarly to English.

Literature on the diachrony of argument structure and in particular on the diachrony of ditransitives has demonstrated how different scenarios of language change are possible when more constructions for the expression of the same arguments are available: given this condition, many functional mechanisms may be identified which determine different

Table 1. The most frequent ditransitive alignment types and constructions

INDIRECTIVE ALIGNMENT	SECUNDATIVE ALIGNMENT	NEUTRAL ALIGNMENT
T = P ≠ R	T ≠ P = R	T = P = R
Indirect object construction	Primary object construction	Double object construction

⁵ To the three main types in Table 1 we should also add *tripartite alignment* (T ≠ P ≠ R), with different encoding for T, R and P, and *horizontal alignment* (T = R ≠ P), in which P is encoded differently from T and R. However, these two types of alignment are extremely uncommon across languages (Malchukov et al. 2010: 7). For a very detailed typological account of three-participant events, see also Margetts & Austin (2007).

⁶ Many factors have been adduced to explain the dative alternation in English. For a recent synchronic and diachronic account, see Zehentner (2019) and the literature therein.

⁷ In some generative analyses, there have been some attempts to interpret clitic (doubling and non-doubling) constructions in some Romance languages as displaying the same properties as the English DOC. These attempts are not considered central to the diachronic issues focused on in this study and will not be discussed here (the reader is referred to the recent survey by Pineda & Mateu 2020 and the literature therein).

⁸ As is well-known, Romanian is a partial exception. On the notion of indirect object in Romance, see Prandi (2020) and the literature quoted there.

developments (Fedriani & Napoli 2020), as may also happen in other cases of co-existence of comparable expressions and constructions.

As recently pointed out by De Smet et al. (2018: 198–201), in many theoretical models constructed around the notion of *competition* between functionally similar or equivalent forms, it is often taken for granted that languages, driven ultimately by isomorphism, tend to resolve it. The two expected outcomes of this process are *substitution* (one form prevails over the other, which is then eliminated) or *differentiation* (each form will occupy a separate functional space). As an alternative to such competition models, De Smet et al. (2018: 203) have made a proposal based on the notion of *attraction*, which is regarded as depending on *analogy* and described as follows: ‘when two expressions show functional overlap, they are in fact likely to become more similar, as if being attracted to each other’. In the history of English, dative alternation is the result of a development that took place within a scenario of constructional variation in which ‘competition’ could be better understood as ‘attraction’ (Broccias & Torre 2020) since the coexistence of the *to*-construction and DOC did not lead ‘to the defeat of one constructional variant, but to the emergence of a cooperative relation’ (Zehentner 2019: 305), whereby the two variants became ‘allostructions’ and co-evolved ‘in a mutually adaptive relationship to each other’ (Zehentner 2019: 36).⁹ This is intriguing if one considers that analogy is normally expected to lead to the generalization of one single construction under the influence of *frequency*: highly frequent elements are more inclined to some changes, such as grammaticalization, but more resistant to others, such as analogy, which tends to rather affect elements with a low frequency (Bybee 2003: 621). However, in argument structure changes, not only does frequency play a role but also *productivity* (Barðdal 2008), understood as a combination of both the frequency and internal coherence of a schema or a category. Moreover, lexical idiosyncrasy too can interfere by giving rise to stability rather than change, for example, in languages where, with ditransitives, case marking is assigned to a large extent depending on lexical constraints (see, e.g. Dahl 2020 on Vedic, Napoli 2018 on Latin).

The history of ditransitives from Latin to Romance seems to represent a case of substitution (a prepositional construction replaced the expression of the R through the dative) if looked at from a global perspective and as a long-term change. However, in principle, a different scenario was also possible, given the variety of the syntactic constructions (case marked constructions and prepositional constructions) attested within the ditransitive class. Our focus is on the other side of the story, namely on what we call here the ‘missing dative alternation’ in Romance, with the belief, already expressed in Section 1, that a model of language change should explain not only developments that did take place but also those that could have taken place and did not – and, furthermore, not only change but also stability (Bouzouita et al. 2019).

We intend to tackle these issues by taking a case study as a starting point. More precisely, we have carried out a corpus-based analysis of six Late Latin verbs that may be taken as representative of the three major ditransitive classes: *do* ‘to give’ and *dono* ‘to donate’ (physical possessive transfer); *doceo* ‘to teach’, *flagito* ‘to demand (fiercely), to entreat’ and *loquor* ‘to talk (to), to tell’ (cognitive transfer) and *celo* ‘to hide’ (dispossession).¹⁰ We have selected this set of verbs on the basis of the following reasons. *Do* is the ditransitive

⁹ It is worth observing that in generative linguistics, in particular, the functional and semantic overlapping of different constructions in the case of argument structure alternations (mainly, but not exclusively, with dative alternation) is a matter of discussion, with different proposals and solutions that are impossible to sum up here. For a recent account, see, among others, Ramchand (2013) and Bruening (2018).

¹⁰ Other verbs will occasionally be quoted for the purposes of the analysis, in particular dispossession verbs meaning ‘to take away, to deprive’ (see Section 5.2).

verb par excellence;¹¹ *celo*, *flagito* and *doceo* document the double object construction since Early Latin; *dono* and *loquor* are particularly relevant verbs because they alternate between a variety of constructions (Section 3): this makes it particularly interesting to follow their development in Late Latin. Another factor that guided the selection of these verbs is their degree of diachronic persistence: while *do*, *dono* and *celo* survived in different Romance languages, *loquor*, *doceo* and *flagito* underwent a process of lexical substitution. As we shall see, their disappearance is likely to be related to the diachronic development of the constructions they instantiated, which makes these verbs further worthy of in-depth investigation.

Our study is based on two corpora: the *Library Latin Texts* (LLT) and the *Digital Library of Late-Antique Latin Texts* (DigilibLT).¹² The LLT was used for searches across a selected sample of Christian texts plus the *Historiarum libri X* by Gregory of Tours (consistent with the decision to examine historical texts: see below). The Christian texts were selected based on the criterion of variation in authorship (four authors: Augustine, Jerome, Lactantius and Gregory the Great), chronology (fourth to seventh centuries A.D.), text genre and register. As regards this last aspect, we included texts which conformed to models of classical prose, more or less closely, such as Lactantius's *Divinae Institutiones*, and texts that, in principle, were more independent from such models, such as Augustine's *Sermones*. This was because they were primarily aimed at non-educated groups of people and thus more likely to reflect a more 'colloquial' style and the influence of the spoken language (although, as is well known, it is quite difficult to judge to what extent this happens in individual texts).¹³ We used the DigilibLT to retrieve data from three different text genres of non-Christian prose works from the third to the seventh century A.D., namely historical works, grammar and legal texts. The data extracted from our corpora are summarized in Table 2. They include the first person singular, the third person singular and plural of the indicative mood of the present, imperfect, future and perfect tenses of the six verbs mentioned above (in the active voice).¹⁴

The analysis of the verbs in Table 2 required manual identification of the arguments involved and their encoding. We went on to adopt the described sampling because of the enormous number of occurrences resulting from searching through the complete set of the different forms of these verbs (in some cases, however, we extended our searches: see Section 5). In the following sections, the different types of ditransitive constructions that characterized the verbs under investigation will be shown in detail.

Table 2. Tokens per verb analysed in the corpus

VERB	TOKENS
<i>loquor</i> 'to talk (to), to tell'	3272
<i>do</i> 'to give'	2454
<i>doceo</i> 'to teach'	966
<i>dono</i> 'to donate'	278
<i>flagito</i> 'to demand, to entreat'	58
<i>celo</i> 'to hide'	11
Total	7039

¹¹ With some exceptions, however, since typological data point to some cross-linguistic variation in this respect (see Margetts & Austin 2007: 397).

¹² They are available, respectively, at <http://www.brepolis.net/> and <https://digiliblt.uniupo.it/index.php>.

¹³ For the complete list of the Christian texts selected for this study, see the References.

¹⁴ We have selected these forms, since, drawing on a preliminary survey, they turned out to be more frequent as compared to the second person. For reasons of space, we will leave the passive voice aside. However, it can be noted that the choice of the alignment type in the passive voice tends to be consistent with the type of alignment in the active voice, both in Latin (cf. Napoli 2018) and cross linguistically (Malchukov et al. 2010: 30).

3. ALIGNMENT TYPES IN LATIN AND BEYOND

In this section, we shall briefly present a typological classification of Latin ditransitives, which contributes to systematizing the diversity of syntactic constructions typical of the verbs semantically belonging to this group. Following Napoli (2018), the three main alignment types identified in Table 1 (Section 2) are all attested in Latin:

(4) *Indirective alignment*

L. Papirius Paetus [...] **mihi libros** eos
 L. P.-NOM P.-NOM I-DAT book-ACC.PL that-ACC.PL
quos Ser. Claudius reliquit donavit
 REL.ACC.PL Ser. C.-NOM leave-IND.PFV.3SG present-IND.PFV.3SG
 ‘L. Papirius Paetus [...] offered me as a present the books left by Ser. Claudius’.
 (Cic. *Att.*1, 20, 7)
 (Napoli 2018: 65)

(5) *Secundative alignment*

... *ita animatus fui* | *itaque nunc sum*,
 so disposed-NOM.SG be-IND.PFV.1SG so now be-IND.PRS.1SG
ut ea te patera donem
 that this-ABL.SG you-ACC.SG bowl-ABL.SG present-SBJV.PRS.1SG
 ‘But I did have it in mind to present you with this bowl, and I still do’. (Plaut. *Amph.*
 762–763)
 (Napoli 2018: 65)

(6) *Neutral alignment*

Is hunc hominem cursuram docet
 he-NOM.SG this-ACC.SG man-ACC.SG running-ACC.SG teach-IND.PRS.3SG
 ‘He teaches this man to run [lit., running]’. (Plaut. *Trin.* 1016)
 (Napoli 2018: 69)

The basic and most common type, proper to ditransitives from all the three semantic classes outlined in Section 2, is indirective alignment (4). The most frequent pattern associated with it is that in which the R is marked by the dative case and the T by the accusative case, as in (4), corresponding to an IOC. However, already in Early Latin, some verbs admit the substitution of the dative with a prepositional construction with *ad* plus the accusative or *ab* plus the ablative, depending on the verb (see Sections 4 and 5.2), thus maintaining indirective alignment (i.e. a distinctive encoding for the T and R) but featuring a different syntactic pattern. Some verbs meaning ‘to present (a present)’, such as *dono* and *munero*, or ‘to dedicate’, such as *dedico* and *sacro*, may alternate between indirective alignment and secundative alignment, while maintaining the same semantic values (see Section 5.1.2 for further details on this alternation): secundative alignment, exemplified in (5), corresponds to a construction in which the R takes the accusative case, like the P of montransitives, and the T takes the ablative. Finally, verbs showing neutral alignment, such as *doceo* in (6), take two accusatives, featuring a DOC: in Early Latin, this subgroup includes some verbs of cognitive transfer – namely *doceo*, *edoceo* and verbs of asking and demanding (which, however, also allow alternation with different construction, as *flagito*, examples (1) and (2): see also Section 5.2.2) – and a verb of dispossession, *celo*.

To come back to typology, as pointed out by Malchukov et al. (2010: 19), ‘in the simplest case, a language has just a single ditransitive construction, but not uncommonly languages show splits or alternations. A lexical split is the situation where different verbs use different constructions, while an alternation is the situation where one and the same verb can occur

with different constructions with roughly the same meaning'. Although splits and alternations are partly determined by language-specific conditions,¹⁵ two important factors at play are often the degree of affectedness of the two non-agentive arguments and their distinction in degree of prominence (depending on animacy, person prominence, definiteness and topicality: cf. Malchukov et al. 2010: 20–22; see also the notion of *referential prominence* in Haspelmath 2021: 138–143, 146–151, especially as applied to cases of grammatical split). As regards lexical split, for instance, in some languages, the DOC is restricted to verbs whose R shows a high degree of affectedness, such as verbs of dispossession and verbs of teaching (Malchukov et al. 2010: 50–51). Affectedness has often been adduced to explain in particular the alternation between IOC and DOC, in addition to prominence features.¹⁶

In general terms, the picture emerging from Early Latin seems to correspond to a situation of both lexical split, since different ditransitive constructions are used under specific lexical conditions (cf. IOC in (4) and DOC in (6)), and alternation, since some verbs may use two different constructions. In particular, the affectedness and animacy of the R are relevant to the selection of the DOC in Latin (cf. Napoli 2018).

As mentioned in the previous sections, in the Romance languages the class of ditransitives does not preserve the syntactic variety of Latin in terms of alignment types and available constructions: indirective alignment is generalized and the R is typically encoded through a prepositional construction whose origin will be discussed in the next section.

4. A REAPPRAISAL OF *AD* PLUS ACCUSATIVE WITH LATIN DITRANSITIVES

As is well known, the alternation between the dative case and its competing expression featuring the preposition *ad* + the accusative for the expression of the R is not a Late Latin innovation, but is already documented in early writers (for instance, in Plautus: see Baños 2000, Adams & De Melo 2016: 92–98) and well attested in Classical Latin (Théoret 1982; Baños 1996; Baños 1998). As is generally recognized, however, the use of the *ad* construction increased substantially only in later periods, gradually involving a larger number of verbs.¹⁷

A number of proposals have been made as to how to analyse this alternation. Earlier scholarship suggested that substitution gradually gained ground due to an increasing 'drift' towards analyticity and expressiveness, whose emergence can be already made out in Early Latin 'Volkssprache' (see, e.g. Svennung 1936: 362 and Löfstedt 1942). More recently, other authors have proposed alternative accounts, identifying semantically finer distinctions behind the preference of one construction over the other. Adams & De Melo (2016), for instance, argue that as early as in Cicero, the prepositional construction was typically selected with verbs of saying when a large audience was addressed publicly, which entailed what they call a 'projection of the voice' in the direction of the listeners (e.g. *ad populum loquebatur* '[he] made speech to the gathering', Cic. *Verr.* 1, 86: Adams & De Melo 2016: 100). In other specific cases, they suggest that alternation between the two competing constructions can be triggered by the presence or absence of the semantic entailment of motion. A case in point is *nuntio* 'to announce', whose R can be expressed by *ad* if this participant 'needs to be reached through

¹⁵ As emerges, for instance, from the papers in the recent book by Korn & Malchukov (2018); on these phenomena, see also Malchukov (2017).

¹⁶ Cf. the discussion in Haspelmath (2021: 155) about the parameter of *givenness*, implied in the *dative alternation universal*, which is defined as follows: 'if a dative alternation is sensitive to givenness, then the dative alternant tends to be used when the R is not given information and/or the T is not new information'. However, the evidence for it is considered 'slim' by the author.

¹⁷ See, e.g. Sznajder (2012) on verbs of saying in the *Vulgata*, Adams & De Melo (2016) for an in-depth analysis of the dative vs. *ad* + accusative alternation in a corpus of Late texts ranging from the third to sixth century, and Fedriani (2020) on the spread of *ad* in the realm of ditransitives in Merovingian Latin. For typological evidence, see Rice & Kabata (2007).

arduous travel’ (Adams & De Melo 2016: 95). This observation ties in with a similar conclusion drawn by Pinkster (1990: 202), who maintains that with *nuntio* ‘the *ad* expression conveys the idea of transportation towards someone, whereas the dative would mean “to communicate to”’. Along similar lines, Baños (1996) convincingly argued that, as a rule of thumb, in Cicero the R of the verb *mitto* ‘to send’ is preferably expressed through *ad* when letters are dispatched across space. By contrast, when the R is given presents, money, or abstract entities (e.g. *salus* ‘health’), the transfer event is less semantically salient and the dative is selected instead.

We could then summarize the main point of all these valuable studies by saying that under certain conditions *ad* could be strategically used to encode the R to trigger a process of *semantic coercion* over the verb, whose meaning could be contextually shaped so as to include the semantic feature of motion. These findings have since been further elaborated with some insights drawn from the cognitive approach: specifically, Luraghi (2010: 31) applied the idea of the so-called ‘conduit metaphor’ of communication (see Reddy 1979), whereby words are conceived of as objects moving along a path from the speaker to the listener, to explain the extension of the *ad* pattern to verbs of saying. Building on these premises, Fedriani & Prandi (2014) corroborated these claims, showing that up to the *Vulgata* the substitution of the dative with *ad* plus the accusative is limited to semantically circumscribed contexts where the idea of motion is salient and transparent. These pieces of evidence thus support the idea of a neatly constrained constructional alternation that had long been governed by a semantic principle.

On the basis of these assumptions, the developmental pathway we might expect in Late Latin is that the indirective alignment with *ad* gradually generalized at the expense of the dative case in those contexts which entailed some kind of allative meaning and where R could be metaphorically reinterpreted as a generic goal. If this hypothesis is on the right track, verbs implying a concrete transfer would easily accommodate the prepositional construction, and did so earlier than, for instance, verbs expressing manual delivery, which do not require displacement. Verbs of communication and cognitive transfer, in turn, are expected to be less clearly associated with the allative meaning of *ad* since the transfer they imply is essentially abstract. Now, if verbs of allative transfer confirm the expected trend, as they are widely documented with *ad* from Classical Latin onwards (see again Baños 1996), in the domains of non-allative transfer (the case of ‘give’) and abstract transfer (the case of ‘teach’ or ‘ask’), things are not as simple as the semantic hierarchy just outlined may suggest.

Firstly, verbs of cognitive transfer (Section 5.3) are precisely those that admit the prepositional construction much more frequently than verbs of physical transfer (Section 5.1) – which runs contrary to the working hypothesis formulated on the basis of the ‘allative’ semantic implicature conveyed by *ad*. Second, verbs of cognitive transfer do not always conform to the ‘projection of the voice’ pattern discussed above, thus suggesting a more complex picture. Although we will see that the semantic principle of ‘projected motion’ does indeed play a role in the expansion of the indirective strategy featuring *ad*, the diachronic picture we are analysing can be better accounted for if a more comprehensive set of factors is considered. Third, the domain of cognitive transfer proves to be quite a complex category since some verbs are attracted to the indirective alignment featuring the preposition *ab* + ablative, instead of *ad* + accusative, for the purpose of expressing the R. As we will argue in Section 5.2.2, the selection of a different preposition basically relies on semantic principles and is ultimately due to a metaphorical reading.

Building on these premises, in the next section we turn to the analysis of the data and the results based on our corpus-based study.

5. DATA ANALYSIS: DITRANSITIVE VERBS IN LATE LATIN

In this section we will present the results of the investigation of the six ditransitive verbs from Late Latin selected for the purposes of this study (see Table 2). We will focus on the notions of stability and change, which are both relevant to explain the diachronic paths followed by these forms, examining to what extent they innovated or remained stable in terms of alignment patterns and syntactic constructions, and the relevance of this to an explanation of the missing dative alternation in Romance. As we will see, the verbs we have scrutinized give rise to a complex picture, characterized by the coexistence of different diachronic pathways which neatly pattern with the semantic features of the ditransitive subclasses involved.

Before turning to the analysis, it is worth stressing that our data generally confirm a tendency that has already been noticed in earlier studies, namely that *ad* is by and large preferred when the R is a nominal expression, while the dative tends to be selected with pronominal R arguments (see, e.g. Sznajder 2012: 280, Adams & De Melo 2016: 97–98, Fedriani & Napoli 2020: 81–82). This difference in behaviour dates back to Plautus: Adams & De Melo (2016: 97) reported that, although the dative is much more frequent than *ad* phrases in his comedies, pronouns take more easily the dative (85.78%) than nouns do (67.79%). The two scholars explain this preferred association in view of the fact that people typically talk about themselves or other persons, and pronouns usually encode easily accessible referents often evoked in discourse: a close connection between pronouns and animate entities is, therefore, only to be expected.¹⁸ This is particularly true in the realm of ditransitives, where Rs are by definition human endpoints, and the dative displays its typical content, namely encoding non-agentive and barely affected animate referents (cf. e.g. Van Langendonck 1998 on Latin). In Late Latin, the maintenance of the dative case seems to be especially strong with the first, second, fourth and fifth person pronouns (Sornicola 2013: 425) – this general trend ultimately paving the way for Romance developments, where cases are still preserved for pronouns (although with some peculiarities in individual languages, deeply examined by Sornicola 2013).

As we shall see, the non-prepositional encoding of the R for pronouns plays a certain role in the diachronic development under discussion in this study. We will come back to this point in Sections 5.3 and 6.2.

In the following subsections, we outline the data, while in Section 6, we will discuss in detail the factors at play and the competing functional motivations behind the rise of the alternative pathways of change (*persistence*, *substitution* and *loss*), which co-existed (and co-evolved) in the history of this functional domain.

5.1. Verbs of physical possessive transfer: Persistence of the dative

Give verbs are represented in our study by *do* ‘to give’ and *dono* ‘to donate’, both instantiating the prototypical semantic core of ‘giving’ cross-linguistically, namely a transfer of possession, the act of ‘passing an object from one person to another person’ (Newman 1996: 34–35), a fundamental and basic concept in human experience (Bouveret 2021). Both verbs exhibit in Late Latin a high degree of *historical persistence* and constructional stability, adhering closely to the Classical situation and leaving almost no room for the innovative *ad* pattern. We shall first present the data about the ‘give’ verb par excellence, *do* (Section 5.1.1) and then focus on the behaviour of *dono* in our Late Latin corpus (Section 5.1.2).

¹⁸ We agree with both reviewers that topicality in combination with animacy, saliency and accessibility might also play a role in explaining synchronic variation in the distribution of nouns versus pronouns. However, taking these factors into account would entail a close examination of other elements concerning Information Structure, which goes beyond the scope of the present study. We will consider this issue in our future research.

5.1.1. *Do*

The verb *do* expresses the most typical manual delivery: since the motion schema, which entails a perceivable and salient path along which an entity travels, is not an integral part of its meaning, there is no obvious semantic motivation for the choice of the alternative construction featuring *ad*, which, as we have seen, conveys a clear allative sense. Therefore, given the lack of a metaphorical interpretation of the R participant in terms of a figurative Goal, the expression of the R with *do* is more commonly associated with the dative case in our Late Latin corpus and is excluded from the process of extension of the prepositional construction. In this respect, our findings tie in closely with the picture painted by Adams & De Melo (2016, esp. 104-106), who show that *ad* is hardly ever found with verbs of giving between about 200 and 500, although in very late texts signs of a change may be identified. In line with this trend, we have found only four instances of the R encoded with *ad* out of 2,454 attestations of the verb *do* in the corpus. In the remaining cases, the indirective alignment type is selected (also with only R or T expressed); the absolute use is documented 170 times.

Despite the remarkably low frequency of the prepositional construction, looking at the rare instances in which *ad* is employed to encode the R can be revealing. As is often the case when exploring linguistic changes, the exceptions to the general rule are of great interest since they may give us glimpses of new developments slowly emerging in the language and of the mechanisms at work in bringing about these developments. The motivations behind the use of *ad* with verbs of giving in the texts under scrutiny precisely help us gain further understanding about the semantic and cognitive principles which probably triggered and enhanced the later spread of the prepositional construction and its generalization in Romance. Let us now analyse them in some detail.

When *ad* is employed to encode the R, it fosters a more dynamic interpretation of the core meaning of *do*, thus providing evidence for the argument structure shaping the meaning of the verb slightly differently and inviting the idea of motion (on this point, see Adams & De Melo 2016: 96). A clear case is (7), where Iordanes describes Vitiges' surrender to the victor. In this context, the capitulation is accompanied by a concrete act of delivering himself up to the winners, together with his wife and the royal treasures, and the use of *ad* with the reflexive form of *do* (*se dedit*) invites a dynamic interpretation of the verb as implying a movement across space – namely handing oneself over to someone. In our view, *ad* does not constitute a functional equivalent of the dative case to express the R at this stage: rather, it maintains a concrete meaning of 'motion toward a Goal'.¹⁹

- (7) [...] *nec mora ultro se ad partes*
 not delay-ABL.SG further himself-ACC to part-ACC.PL
dedit victoris cum Mathesuentha iugale
 give-IND.PFV.3SG victor-GEN.SG with M.-ABL wife-ABL.SG
 'Without further delay, he surrendered himself to the parts of the victor with his wife Matasunta'. (Iord. *Get.* 60, 313)

Another case of *ad* marked R documented in our corpus is very relevant to our discussion, as it provides evidence for the conduit metaphor of communication, which in our view played a key role in the extension of the motion valency frame to verbs of saying, as explained by Luraghi (2010) with regard to Latin. In this view, the argument structure of motion verbs is reinterpreted as part of the prototypical ditransitive valency scheme featuring a Goal of

¹⁹ A very similar context documented in our corpus is Iord. *Rom.* 370. Interestingly, the use of the very same prepositional phrase with other three-place verbs is also attested in Fredegar's chronicles (e.g. Fred. *Chron.* IV, 45; see Fedriani 2020: 86–87). For the sake of completeness, we also mention the fourth context featuring an *ad* marked argument in our corpus, namely Amm. (20, 7, 10).

messages and words, conceived of as objects moving along a path from a Source (the speaker) to a Goal (the listener). This is clear in (8), where the fleeing Burgundians shout their message to Chlodomer: the expression *dant ad eum voces*, literally ‘they give words to him’, vividly depicts the Burgundians sending out their message aloud through the air.

- (8) *adsimilantes* *illi* *signum* *eius*,
 imitate-PTCP.IPFV.NOM.PL he-NOM.PL rallying.cry-ACC.SG he-GEN.SG
dant *ad eum* *voces*, *dicentes* [. . .]
 give-IND.PRS.3PL to he-ACC.SG word-ACC.PL say-PTCP.IPFV.NOM.PL
 ‘They imitated Chlodomer's rallying-cry and shouted to him, saying [. . .]’ (Greg. Tur.
HL III, 6)

Note that the expression *dant ad eum voces* provides details about the modality whereby communication took place in the narrated context, that is to say, words travelled across space and reached the R of the message; the generic speech act is then recapitulated again with the immediately following *dicentes*.

5.1.2. *Dono*

The case of *dono* is particularly interesting, given that, since Early Latin, this is one of the few ditransitive verbs that show alternation between different alignment types. In particular, it alternates between indirective alignment, encoding the T as an accusative and the R as a dative, with the less frequent, but well documented, secundative alignment, encoding the R as an accusative and the T as an ablative (see example (5)). It must be added that the same verb shows traces of neutral alignment in a few cases from Early Latin, taking two accusatives. The alternation of indirective and secundative alignment with *dono* can be explained as originating by analogy with three-place verbs encoding an instrumental argument with the ablative (like *instruo* ‘to equip’) and as motivated by pragmatic factors (mainly, the focalization of the R; for discussion and references, cf. Napoli 2018: 64–68).

In our corpus, the indirect construction featuring the dative case constitutes the most frequent argument structure, as it is documented 113 times of 278 (corresponding to 41% of the attestations of *dono* in the corpus). Note, however, that the frequency of indirective alignment substantially increases if we also include in the count the cases in which only a dative marked R or an accusative marked T are expressed (25 and 69 cases, respectively, totalling 207 attestations, i.e. 74%). An example of the predominant indirect construction is given in (9):

- (9) *omnia* *sua* *pauperibus* *donaverunt*
 all-ACC.PL their-ACC.PL poor-DAT.PL donate-IND.PFV.3PL
 ‘they donated all their properties to the poor’. (Aug. *serm.* 125A, 4)

The secundative alignment constitutes a much rarer option, documented 30 times (in two cases, only with the accusative R overtly expressed), corresponding to 11% of the total occurrences of *dono* in the corpus (the remaining cases document either the absolute use of the verb or the expression of T as a subordinate clause). Interestingly, this construction never occurs in Augustine's *Sermones* in our corpus, while it is found in *De civitate dei*, despite the raw frequency of the analysed forms of *dono* in this work (a total of 13 tokens only, but including 3 instantiations of the secundative alignment). In Lactantius' *Institutiones*, there are only two instances of *dono*, both featuring the secundative pattern. This distribution suggests a register-based alternation in the choice of the two competing constructions: while the indirective alignment is much more frequent and constitutes the only option in the more

colloquial work of our corpus, the secundative pattern is rarer and restricted to more formal texts.

Although the Late grammarian Priscianus still confirms the semantic equivalence of the two argument structures (Prisc. *gramm.* XVIII), our corpus-based inquiry offers a glimpse of a stylistic differentiation and suggests that the secundative construction constituted the marked option within the Late Latin system. This markedness is above all semantic in nature: with *do*, the secundative alignment is always selected in our corpus when the T is made up of abstract entities – crucially, less prototypical objects. In Christian Latin, such a configuration is typically found when the gift comes from God and the T corresponds to abstract concepts such as *spiritu* ‘soul’, *nuptiis* ‘wedding’ and *luce* ‘light’. In historical prose, this alignment type is equally attested especially with reference to the gift of titles and honorary appointments or to abstract qualities such as *libertate* ‘freedom’ and *securitate* ‘safety’:

- (10) *multis civitatibus immunitates vectigalium dedit,*
 many-DAT.PL city-DAT.PL immunity-ACC.PL of.taxes-GEN.PL give-IND.PFV.3SG
multos Romana civitate donavit
 many-ACC.PL Roman-ABL.SG citizenship-ABL.SG donate-IND.PFV.3SG
 ‘he gave many cities the immunity of taxes, granted Roman citizenship to many’.
 (Exup. 5, 34)

It is worth stressing at this juncture that this semantic restriction is consistent with a Classical Latin pattern (Pinkster 2015: 138), presumably because abstract entities are less prototypical Ts. As such, they are less suited to the accusative case, the case of prototypical ‘patients’ and accommodate instead the instrumental semantics of the ablative case, this supporting the idea of a gift as ‘equipment’ one is provided with (on this pattern in Classical Latin, see also Napoli 2018: 66–67). In conclusion, our data ultimately testify to a scenario of great diachronic stability.

Finally, it is worth commenting on the only case in which we identified a different encoding for the R, namely the use of the prepositional construction featuring *ad*:

- (11) *Dat sanitatem etiam iumentis et draconibus,*
 give-IND.PRS.3SG salvation-ACC.SG also mule-DAT.PL and serpent-DAT.PL
usque ad muscas et vermiculos donat
 quite.up.to fly-ACC.PL and little.worm-ACC.PL donate-IND.PRS.3SG
sanitatem
 salvation-ACC.SG
 ‘He gives salvation also to mules and serpents, he gives salvation even to flies and little worms’. (Aug. *serm.* 255, 3)

Although it could be argued that the presence of the preposition is determined by *usque* in this context since *usque ad* is a routinized adverbial expression, it is interesting to note how, in comparison with the dative, which is selected in the immediately preceding sentence (*dat... iumentis et draconibus*), this construction emphasizes the idea that every creature is saved, in the sense of *reached*, by God. In other words, the (*usque*) *ad* construction triggers the image of God as moving towards small and insignificant creatures like *muscas et vermiculos*. Salvation is a gift and this gift is directly delivered by God *usque ad* them. With the exception of this peculiar context, the R is never expressed by *ad* in our corpus with the verb *do*. Again, this is basically due to the fact that presents are typically given personally to the recipient, who prototypically stands before the donor: also in this case, the lack of the allative meaning has probably determined a high degree of constructional stability in Late Latin.

5.2. *Verbs of dispossession and request: Loss of neutral alignment*

The verbs *celo* ‘to hide’ and *flagito* ‘to demand (fiercely), to entreat’ belong to the small group of ditransitives that show neutral alignment in earlier stages of Latin. In Late Latin, these two verbs share a similar, although not identical, path of development, characterized by *constructional loss* and *substitution*. Neither *celo* nor *flagito*, which are both rarely attested in our corpus, preserves the DOC, which is substituted by argument structures reflecting indirective alignment. This is not surprising considering the non-prototypical semantic nature of these two forms in the realm of ditransitives (see Sections 2 and 3) and the parameters of frequency and productivity, the double accusative corresponding to a constructional pattern which is shared by a few non-prototypical ditransitives with different meanings since Early Latin. As we shall see below, this pattern tends to be replaced by other constructions already in Classical Latin (cf., however, the case of *doceo* in Section 5.3.1).

In other words, as opposed to give verbs, which have been recognized as displaying diachronic stability in Late Latin, *celo* and *flagito* undergo constructional attraction and change, generalizing the expression of the R (or, we should say, of the ‘R-like’) argument through the dative and/or *a/ab* plus the ablative. The pattern featuring the accusative for the T and *a/ab* plus the ablative for the R deserves particular attention. It can be found in Early Latin with ditransitive verbs of dispossession meaning ‘to take away’, like *adimo*, *aufero* and *eripio*. As a rule, these verbs take the same indirect construction (accusative + dative) used by give verbs, although they may substitute the dative with *a/ab* (less frequently *e/ex*) plus the ablative to denote the person or the inanimate entity from whom/which something is taken away. As pointed out in Napoli (2018: 63–64), given that *a/ab* plus the ablative is typically employed in Latin to express the semantic role *Source*, to be understood as ‘the place from which a trajector moves along a trajectory’ (Luraghi 2010: 32), its extension to ditransitives depends upon the same metaphorical mechanism presupposed by the extension of the prepositional construction with *ad* plus the accusative to verbs of possessive transfer (see Section 4). This means that the act of taking away something from somebody (or from something else) is equally conceived of as a motion event, occurring across a physical space, as with give verbs, but in the reverse direction. Indeed, the R metaphorically corresponds to a point of departure, in other words to a Source (rather than to a Goal), since it indicates the deprived person or thing from whom/which the process of dispossession starts.

Interestingly enough, the same construction was extended mainly in Classical Latin to verbs of asking and demanding like *flagito*, *posco* and *reposco*, which alternated this construction with the double accusative (as shown in examples (1) and (2)): in this case, the R is conceptualized as the point of departure of the event since it is the source of the information or the source of the thing asked, consistently with what happens to bivalent verbs such as *peto* ‘to request, to ask for’, which can take the prepositional construction with *a/ab* to encode the person asked (see Pinkster 2015: 165–167).

The occurrence of this pattern with *celo*, in alternation with the dative, and its generalization with *flagito* will be the focus of the next two sections, where the specific paths of development followed by these two verbs will be discussed in turn.

5.2.1. *Celo*

In Early and Classical Latin, *celo* typically implies an animate, affected R (as does *doceo*) and an inanimate T and always shows neutral alignment, without admitting the expression of the R as an indirect argument (Napoli 2018: 70–71, 81). In other words, it was the only verb of dispossession that regularly took the DOC, differing from the verbs of depriving mentioned above, which only allowed the indirective alignment. In Late Latin, *celo* exhibits a different

state of affairs. In our corpus, where this verb is rarely found (only 11 occurrences), the argument structure corresponding to the DOC is not attested with it. The T is always encoded as an accusative; the R, if expressed, is encoded by the dative case:

- (12) *Huius autem admirabilis rei rationem*
 this-GEN.SG however admirable-GEN.SG thing-GEN.SG reason-ACC.SG
colligo ut possum, quam vobis non celabo
 gather-IND.PRS.1SG as can-IND.PRS.1SG REL.ACC.SG you-DAT.PL not hide-IND.FUT.1SG
 ‘But I shall consider, as I can, the reason for this extraordinary thing that I will not hide from you’. (Aug. *serm.* 389, 10)

Examples such as (12) demonstrate that *celo* is attracted by the most frequent and generalized ditransitive pattern, that is, the IOC in which the T corresponds to an accusative and the R to a dative. However, it is worth noting that Hieronymus cites a passage from Isaiah (32, 2) featuring the reflexive form of the verb, which takes the accusative *se* referring to the person hidden and *a* plus the ablative of a noun denoting the non-human and inanimate element from which that person hides:

- (13) *et erit vir sicut qui absconditur*
 and be-IND.FUT.3SG man-NOM.SG as REL.NOM.SG conceal-IND.PRS.PASS.3SG
a vento, et celat se a tempestate
 from wind-ABL.SG and hide-IND.PRS.3SG himself-ACC from storm-ABL.SG
 ‘And a man will be as a hiding place from the wind, and a shelter from the storm’.
 (Hier. *in Is.* 10, 32)

As shown in (13), *celo* selects the construction with *a/ab* plus the ablative, which was common with verbs of depriving, in a non-canonical case in which there is no human R and the verbal event does not correspond to the act of keeping something of conceptual nature secrete, which is frequent with this verb (see (12) above). On the other hand, in (13), the presence of a prepositional construction with an ‘ablative’ meaning (‘movement from’) invites a dynamic interpretation of the verb (such as the *ad* construction in the example of *do* quoted in (7)), denoting the act of moving away, in other words hiding, from the dangerous natural force represented by *tempestatas* ‘storm’. In this respect, the behaviour of *celo* becomes consistent with the behaviour of verbs of depriving, which lacked the double accusative but attested the alternation between the dative and *a/ab* plus the ablative from Early Latin onwards.

5.2.2. *Flagito*

In Classical Latin, *flagito* and a few other verbs of demanding such as *posco* and *reposco* are the only ditransitives to admit alternation between neutral alignment and indirective alignment (represented by the ‘ablative’ prepositional construction mentioned in Section 5.2). This means that the R may be expressed as an accusative or through *a/ab* plus the ablative, whereas the T (the thing asked for) is always encoded as an accusative. From a diachronic perspective, these verbs rarely admit the construction with *a/ab* plus the ablative in Early Latin, where it is limited to cases in which the semantic interpretation of the two object arguments needs to be disambiguated: as a result, the R is distinguished from the T through a different encoding. This is a frequent argument structure in Classical Latin, occurring especially – but not exclusively – when both T and R are animate. Its extended use is proof that ‘it tends to replace the pattern with the double accusative (maybe perceived as “old-fashioned”)’ (Napoli 2018: 82).

In Late Latin, *flagito* seems to have lost the DOC. The pattern featuring the accusative case for the T and *a/ab* plus the ablative for the R is the default argument structure for this verb

(14), as well as for *posco* and *reposco*,²⁰ consistent with the behaviour of a frequent verb of asking, i.e. *peto*:

- (14) *oboedientiam abs te flagito*
 obedience-ACC.SG from you-ABL.SG entreat-IND.PRS.1SG
 ‘I ask for obedience from you’. (Aug. *serm.* 359B, 9)

It is important to take into account that *flagito* occurs 58 times in our corpus and that the R is expressed only 6 times (in 8 cases, the verb is used intransitively, while in the other 44 cases, only the T is present). The R is encoded through the prepositional construction with *a/ab* also in cases in which it is the only nominal argument (apart from the subject), followed by a subordinate clause.²¹

The data from our corpus provide evidence for the fact that the process of substitution of the double accusative with the prepositional construction is completed for *flagito*, which, moreover, does not seem to select the encoding of the R through the dative as opposed to verbs of depriving, like *aufero*, which continue to use both the dative and *a/ab* plus the ablative to encode the R.

Examining the distribution of the two types of encoding with verbs of depriving goes beyond the scope of the present study. Nonetheless, what is worth remarking here is the different behaviours of different semantic subgroups of verbs (verbs of dispossession, like *celo* and *aufero*, and verbs of asking, like *flagito*), which, however, will all generalize the expression of the R through *a/à* in the Romance languages. We will come back to this question in Section 6.

5.3. Verbs of cognitive transfer: The *ad* construction

This section is devoted to two verbs of cognitive transfer, namely *doceo* ‘to teach (something to somebody)’ and *loquor* ‘to tell (something to somebody)’, which did not show the same behaviour in terms of argument structure in Early and Classical Latin, but which attest, in Late Latin, to an interesting use of the prepositional construction made up of *ad* plus the accusative (although to a very different extent), and thus give us a glimpse of future developments. This is the reason why we will dedicate particular attention to the illustration of the data concerning these verbs.

In the following sections, we will argue that the emergence and spread of the prepositional construction with these two verbs followed different and independent pathways. On the one

²⁰ We also checked the occurrences of these verbs for comparative purposes. In doing so, we found a few occurrences of *posco* with a double accusative, as in the following case, where it alternates with the prepositional construction:

- (i) *Propterea monet apostolus paratos nos esse debere*
 therefore advise-IND.PRS.3SG Apostle-NOM.SG ready-ACC.PL we-ACC be-INF.PRS owe-INF.PRS
ad responcionem omni poscenti nos rationem de fide
 to reply-ACC.SG each-DAT.SG demand-PTCP.IPFV.DAT.SG we-ACC reason-ACC.SG about faith-ABL.SG
et spe nostra, quoniam, si a me infidelis rationem
 and hope-ABL.SG our-ABL.SG since if from I-ABL infidel-NOM.SG reason-ACC.SG
poscit fidei et spei meae [...]
 demand-IND.PRS.3SG faith-GEN.SG and hope-GEN.SG my-GEN.SG
 ‘Therefore, the Apostle advises us that we need to be ready for a reply to everybody who may ask us the reason for our faith and hope, since, if an infidel asks me the reason for my faith and hope [...]’ (Aug. *epist.* 120, 4)

Note that, as mentioned above (Section 5), the double accusative was still used with other verbs in Late Latin, such as *rogo* ‘to ask’ and *doceo* ‘to teach’ (cf. Section 5.3.1).

²¹ There is also one instance in which *ab* is substituted by *de* (Aug. *serm.* 330, 1), another preposition typically used to express Source in Latin (Luraghi 2010: 22, 32). As pointed out by Luraghi (2010: 33), ‘the replacement of *ex* by *de* started later, but in the Vulgar Latin texts it looks further advanced than the replacement of *ab*’.

hand, *ad* is employed to express the R with *doceo* for analogical reasons, basically reflecting a concomitant pattern built on the same preposition, which was already in use in this developmental stage of the language (Section 5.3.1). On the other hand, we show that *loquor* is frequently used with *ad* ultimately as a result of language contact, where the choice of the preposition for the expression of the R reflects a biblical mannerism that was established, and then replicated, in Christian Latin translations and commentaries on original Greek (and Hebrew) sources (Section 5.3.2).

5.3.1. *Doceo*

Doceo is the ditransitive cognitive verb par excellence since it denotes the transfer of mental notions or technical abilities from the A to the R. Verbs meaning *to teach* ‘can appear in a double object pattern even in languages where ‘give’ cannot’ (Malchukov et al. 2010: 51). In general, this is explained by the fact that they typically presuppose an animate and affected R, which can easily be distinguished from the T.

As is well known, *doceo* confirms this tendency in showing neutral alignment from Early Latin on since it encodes both the T and R with the accusative case featuring a DOC. This construction is widely attested in Late Latin with *doceo*, showing *historical persistence* in contrast to the replacement that the same construction underwent with other verbs, such as *celo* and *flagito* (Section 5.2). This means that the person to whom something is taught is consistently encoded as a direct object in the active voice throughout the history of the Latin language, and as a subject in the passive (cf. Napoli 2018: 75–76), without admitting any kind of alternation (see (17) below).

In our corpus, we found 966 occurrences of *doceo*, distributed as follows: 551 in Christian Latin, 306 in grammarians and 109 in historians. There are 153 instances of a double accusative, of those 966 occurrences and 77 instances in which the sole R is explicitly expressed as an accusative (whereas the T is not present). In all other cases, the verb is used intransitively (absolute use) or with only the T expressed as an accusative. The distribution of the 153 occurrences of DOC, which are mainly found in Christian Latin, is shown in Figure 1.

As displayed in Figure 1, the R may be expressed by a noun (33 occurrences), as in (15a), or, much more frequently, by a pronoun (120 occurrences), as in (15b). The T may correspond

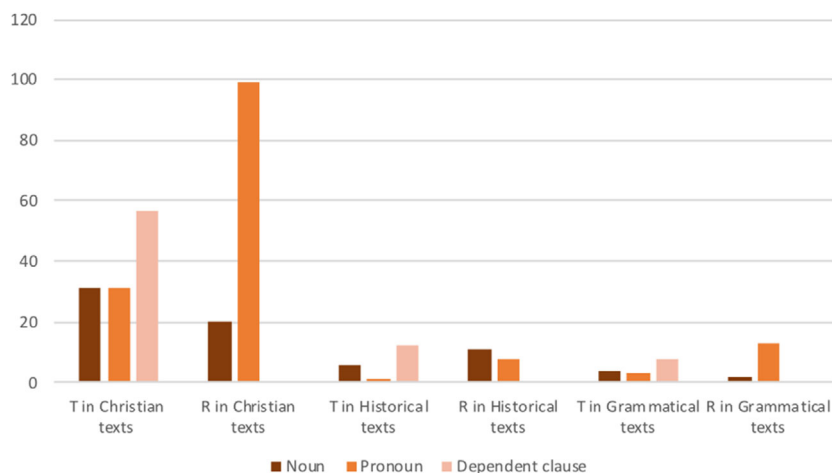


Figure 1. Distribution of the DOC with *doceo* according to the characteristics of the T and R arguments

to a noun (15) or a pronoun but may also be substituted by a dependent clause, namely an infinitive clause (16) or a clause introduced by a subordinating conjunction, such as *ut*.

- (15) a. *Persei legitimum filium artem ferrariam*
 P.-GEN.SG legitimate-ACC.SG son-ACC.SG art-ACC.SG belonging.to.iron-ACC.SG
ob quaerendum docuit victum
 for seek-GER.ACC.SG teach-IND.PFV.3SG sustenance-ACC.SG
 ‘And he taught the legitimate son of Perseus the blacksmith's trade as a means of livelihood’. (Amm. 14, 11, 31)
- b. *Sed ipse filius dei [...]*
 but he-NOM.SG son-NOM.SG God-GEN.SG
docuit te pauca verba
 teach-IND.PFV.3SG you-ACC.SG few-ACC.PL word-ACC.PL
 ‘But the Son of God himself taught you a few words’. (Aug. *serm.* 386, 41)
- (16) *docet ecce te ratio non esse*
 teach-IND.PRS.3SG here you-ACC.SG reason-NOM.SG not be-INF.PRS
veras deorum religiones
 true-ACC.PL god-GEN.PL religion-ACC.PL
 ‘Reason teaches you that the religious institutions of the gods are not true’. (Lact. *inst.* 2, 6, 10)

It is also worth noting that Grammarians (third to sixth centuries) often illustrate the syntactic behaviour of *doceo* by means of examples displaying its monotransitive use with only the R in the active voice, and the encoding of the R itself as the subject of a passive form, as in (17).

- (17) *ut ego doceo illum vel Theoctistus docet Priscianum,*
 as I-NOM teach-IND.PRS.1SG he-ACC.SG or T.-NOM.SG teach-IND.PRS.3SG P.-ACC.SG
ego doceor ab isto, tu doceris
 I-NOM teach-IND.PRS.PASS.1SG by this-ABL.SG you-NOM.SG teach-IND.PRS.PASS.2SG
ab illo
 by that-ABL.SG
 ‘As I teach him or Theoctistus teaches Priscianus, I am taught by this, you are taught by that’. (Prisc. *gramm.* XIV)

Sometimes *doceo* admits the presence of a prepositional expression with *de* + ablative (which usually corresponds to the role of *Topic*). In some cases, the prepositional phrase with *de* seems to substitute the missing T, indicating what is thought. Compare the following occurrences, where the same noun phrase appears as an accusative in the first case (*vias suas*) and as part of a ‘*de* + ablative’ construction in the second case:

- (18) *et docebit nos vias suas*
 and teach-IND.FUT.3SG we-ACC way-ACC.PL his-ACC.PL
 ‘And he will teach us his ways’. (Hier. *in Is.* 73, 1, 2)
- (19) *et docebit nos de viis suis*
 and teach-IND.FUT.3SG we-ACC about way-ABL.PL his-ABL.PL
 ‘And he will teach us about his ways’. (Hier. *in Is.* 76, 1, 4)

All the uses of *doceo* illustrated in examples (15) to (19) follow Classical Latin patterns. From our perspective, what is more relevant is that they confirm the continuation of encoding the R as a direct object in both monotransitive and ditransitive constructions.

In our corpus, we found only one apparent sign of discontinuity with the neutral alignment type in the argument structure of *doceo*. This is in Hieronymus and concerns the occurrence of

doceo with *ad* + accusative,²² as in (20a) and (20b), where the T appears, respectively, as an accusative and as a subordinate clause. We extended the search for this construction with *doceo* to the whole Hieronymus corpus and the result is that there is one more occurrence (20c). It is worth emphasizing that *ad* occurs with selected names of people (*Corinthios* and *Romanos*) in these three cases. The most straightforward explanation is that *ad* + accusative depends on the elliptical prepositional phrase *in epistula* ‘in the letter’,²³ consistently with a pattern that is frequently used in Late Latin to refer to the letters of Paul the Apostle to the ancient Christian communities. For instance, it is generally taken for granted that *epistula* is omitted in cases like (21).

- (20) a. *Ad Corinthios quoque rationem dati et*
 to C.-ACC.PL also reason-NOM.SG give-PTCP.PFV.GEN.SG and
accepti simili docuit exemplo
 accept-PTCP.PFV.GEN.SG similar-ABL.SG teach-IND.PFV.3SG example-ABL.SG
 ‘He taught [in the epistle] to the Corinthians the reason for what was given and
 accepted through a similar example’. (Hier. *in epist. Paul.* 3, 6, 7)
- b. [...] *quorum reliquias et apostolus ad Romanos*
 REL.GEN.PL relics-ACC.PL and Apostle-NOM.SG to R.-ACC.PL
docet esse salvatas
 teach-IND.PRS.3SG save-INF.PFV.PASS
 ‘... also the Apostle teaches [in the epistle] to the Romans that their relics were
 saved’. (Hier. *in Is.* 73, 3, 8)
- c. *Sed in singulorum amissione membrorum, dolorem esse*
 but in single-GEN.PL loss-ABL.SG member-GEN.PL pain-ACC.SG be-INF.PRS
communem, cum apostolus doceat
 common-ACC.SG as Apostle-NOM.SG teach-SBJV.PRS.3SG
ad Corinthios [...]
 to C.-ACC.PL
 ‘But, as the Apostle teaches [in the epistle] to the Corinthians, if one member is
 lost all are in pain [...]’ (Hier. *adv. Iovin.* 2, 30, 341)
- (21) *hoc testimonio aliis verbis apostolus*
 this-ABL.SG evidence-ABL.SG other-ABL.PL word-ABL.PL Apostle-NOM.SG
utitur ad Romanos [...]
 make.use.of-IND.PRS.3SG to R.-ACC.PL
 ‘The Apostle uses this evidence with other words [in the epistle] to the Romans [...]’
 (Hier. *in Is.* 9, 12)

We checked the occurrences of the prepositional expressions *ad Corinthios* (91 occ.), *ad Romanos* (89 occ.) and *ad Hebraeos* (52 occ.) in the whole Hieronymus corpus: we found that these prepositional expressions normally depend on the noun *epistula* or the verb *scribo*, although they may also depend on verbs of saying such as *loquor* or, less frequently, *dico*, *aio* and on other verbs such as *explico* ‘to explain’. As a matter of fact, in almost all the contexts in which *ad Corinthios*, *ad Romanos* and *ad Hebraeos* occur, there is a verb or a noun on which *ad* may depend (without the need to presuppose the omission of *in epistula*). This is also the

²² The occurrence of *ad* + accusative following *doceo* in one passage from Lactantius (*Divinae Institutiones* 3, 14, 17) is not considered relevant here since we believe that it is preferable to interpret the *ad* construction as depending on the past participle *composita* ‘made up (for)’, rather than as the R of the verb ‘to teach’, unlike the interpretation provided in Napoli (2020a: 110).

²³ Already in Classical Latin, both the noun *epistula* ‘letter’ and the verb *scribo* ‘to write’ may take *ad* + accusative, as in Cic. *off.* 1, 11, 36–37.

case of the example already quoted in (21), where, in principle, *ad Romanos* may be taken from *aliis uerbis* (rather than from an elliptical phrase *in epistula*, as generally assumed): once again, this expression refers to the domain of speech. Another relevant example is (22), where a similar passage as in (21) is found: the main difference is that *aliis uerbis* does not occur, and *ad Corinthios* is taken from the prepositional phrase *in secunda* ‘in the second [letter]’, headed by the elliptical noun *epistula*. This means that *epistula* is evident from the context, although is omitted (this happens in other few cases in Hieronymus, also with *in prima* ‘in the first [letter]’, as in Hier. *in epist. Paul.* 2, 26, 517).

- (22) *Hoc testimonio apostolus Paulus in*
 this-ABL.SG evidence-ABL.SG Apostle-NOM.SG P.-NOM.SG in
secunda ad Corinthios usus est *dicens...*
 second- ABL.SG to C.-ACC.PL make.use.of-IND.PFV.3SG say-PTCP.IPFV.NOM.SG
 ‘The Apostle Paul used this evidence in the second [epistle] to the Romans saying [...]’
 (Hier. *in Is.* 13, 22)

In our view, all these data suggest that we cannot exclude that in the examples in (20), the prepositional phrases *ad Corinthios* and *ad Romanos* depend on *doceo* and denote the R (or, at least, they may be regarded as ambiguous in this respect). We may suppose that the influence of a specific pattern is at work, namely the pattern represented by ‘*epistula ad* + people name’. The context exemplified in (23), where *doceo* occurs beside *epistula ad...*, clearly shows the kind of analogical pressure that *doceo* could have undergone as the idea of teaching through letters was quite frequent in the Christian world.

- (23) *De quo paulus apostolus in epistola*
 about REL.ABL.SG P.-NOM.SG Apostle-NOM.SG in letter-ABL.SG
ad Hebraeos plenissime docet
 to H.-ACC.PL fully-SUP teach-IND.PRS.3SG
 ‘About this, the Apostle Paul fully instructs us in the Epistle to the Hebrews’. (Hier. *adv. Iovin.* 1, 17)

To summarize, the encoding of the R through a prepositional construction with *doceo* (see 20) is not due to the analogy of a generic construction (*ad* + accusative) but, more precisely, to the analogy of that construction as associated with a specific contextual schema (*ad* + accusative of *people names*) – otherwise, we would expect to find it in more contexts with the same verb. In light of this, the extension of *ad* to *doceo*, which apparently causes the emergence of an alternating construction in its argument structure, cannot be interpreted as a pointer to an ongoing change, but, at most, as an individual innovation found in a single author (at least, on the basis of our corpus, which goes up to the seventh century). Moreover, whatever interpretation one considers as more probable in (20a), (20b) and (20c) – namely the omission of *in epistula* versus the expression of the R through *ad* + accusative – it is worth remarking that contexts like those exemplified there could have represented the starting point for the introduction of a new alignment type with *doceo*, but this did not happen. This is a crucial point for our discussion: the data illustrated so far witness a situation of potential ambiguity, possibly fostering the emergence of a bridging context, which, however, did not lead to the development of a dative alternation.

To conclude, *doceo* can be taken to represent the phenomenon of the missing dative alternation discussed in this study. It could have developed this alternation, as triggered by analogy, but this development remains limited to a very specific type of semantic frame if we accept the interpretation proposed above. One could argue that this ‘fidelity’ to the classical construction made up of two accusatives is what led to the decrease of this verb and its later disappearance in Romance (see Section 6.2).

5.3.2. *Loquor*

Loquor is a particularly interesting verb to look at when exploring the factors at play in the process of language change under scrutiny, as it documents both the diachronic stability of a semantically oriented constructional alternation and an *expansion* and increase in frequency of the prepositional pattern. The latter point has already been made by Adams & De Melo (2016: 122) with reference to Jerome's epistles, where *ad* outnumbers the dative with *loquor* for the expression of the R, while *dico* 'I say', the canonical verb of communication in Latin, documents the opposite ratio. This is one reason why we decided to include *loquor* in our analysis instead of *dico*. Moreover, as we will see, the behaviour of this verb in Late Latin is constrained by multiple driving forces that influence one another, and this renders its development particularly intriguing – although, it has to be noted, *loquor* is not a prototypical ditransitive verb since it is often used intransitively with the meaning of 'to talk' (without expressing the T).

As Adams & De Melo (2016: 114) point out, *loquor* admits three different argument structures from Plautus onwards, which correlate with subtle semantic distinctions: the R can be alternatively expressed by the dative case, with *ad* plus the accusative or with *cum* plus the ablative case. The passage in (24) nicely illustrates all three alternative constructions. The reciprocity of the interaction is first described through the use of *loquitur cum* ('to talk with'), also specified with the addition of *os ad os* 'face to face', depicting co-participation in a symmetrical conversation – one that can be held when talking to a friend: *loquitur ad amicum suum*. Here, the selection of *ad* serves to portray the communication as a one-way transfer of information travelling from the speaker to the R seen as the endpoint of the message. The basic speech act of saying something is then conveyed through the phrase *dicit ei*, featuring the use of the dative case, in other words, the most basic and frequent way of expressing the R of communication acts in the history of Latin (see, e.g. Adams 2013: 293; Adams & De Melo 2016: 94):

- (24) *Loquitur* *cum illo* *os* *ad os*,
 talk-IND.PRS.DEP.3SG with he-ABL.SG face-ACC.SG to face-ACC.SG
sicut quis *loquitur* *ad amicum* *suum*,
 just.as any.one-NOM talk-IND.PRS.DEP.3SG to friend-ACC.SG his-ACC.SG
et dicit *ei* [...].
 and say-IND.PRS.3SG he-DAT.SG
 'He talks with him face to face, just as anyone talks to his friend, and says to him [...].'
 (Aug. *serm.* 23, 316)

Narrowing our discussion down to the *ad* construction, we saw in Section 4 that *dicere ad* is a Classical expression, but, as Sznajder (2012: 272) claims, with a specific semantic nuance: 'le sens en est plutôt "prendre la parole devant" une collectivité, et non s'adresser à un individu; *ad* y équivaut à *apud*'.²⁴ As extensively argued by Adams & De Melo (2016), from Classical Latin onwards, the prepositional construction continued to be selected when the speaker was making a formal and public appeal. In our view, the interactional setting of public appeals may have originally encouraged the metaphorical reinterpretation of the R as a figurative goal implied by the conduit metaphor since the R of a 'public' message is typically more distant from the speaker than in private, face-to-face conversations. When addressing a crowd, the speaker has to speak at full volume if he wants to be heard by the whole audience; in this sense, he probably has clearer awareness of the space dividing him from his listeners. This figurative scenario is neatly documented in (25) from our corpus, where words are

²⁴ The meaning is rather "to speak before" a community, not to address an individual; *ad* is equivalent to *apud*.

conceptualized as entities being sent by the speaker along a trajectory leading to the ears of the faithful and the presence of God as an image projected towards their eyes:

- (25) *Locutus est* *enim non solum verbis* *ad aures*
 talk-IND.PFV.DEP.3SG for not only word-ABL.PL to ear-ACC.PL
eorum, sed etiam specie *ad oculos* *eorum*
 he-GEN.PL but also appearance-ABL.SG to eye-ACC.PL he-GEN.PL
 ‘For he talked not only with words to their ears, but also with his appearance to their eyes’. (Aug. *serm.* 242, 1139)

In the Late Latin texts scrutinized by Adams & De Melo, the *ad* construction is particularly frequent ‘in crowd address or in prayers uttered to God or in authoritative address by a superior (not least God) to inferiors’ (Adams & De Melo 2016: 104). Crucially, this construction is found especially in Christian texts, where the use of *ad* with verbs of saying has been convincingly proven to be a biblical mannerism modelled after the Greek and the Hebrew sources (Sznajder 2012) – basically, a feature of ‘translationese’ (Adams & De Melo 2016: 121). Similar examples are found in our corpus as well (26). However, we also found cases that do not conform to this pattern, featuring the use of the dative in contexts where, according to Adams & De Melo's prediction, we would expect to find the prepositional construction instead (27).

- (26) *De his* *enim ad discipulos* *loquitur*
 about this-ABL.PL for to disciple-ACC.PL talk-IND.PRS.DEP.3SG
dicens [...]]
 say-PTCP.IPFV.NOM.SG
 ‘For he talked about these things to the disciples, saying [...]’. (Aug. *serm.* 210, 3)

- (27) *dum loquuntur* *populo* *audienti*
 while tell-IND.PRS.DEP.3PL crowd-DAT.SG listen-PTCP.IPFV.DAT.SG
vanos sermones
 false-ACC.PL speech-ACC.PL
 ‘While they utter false words to the crowd that is listening’. (Hier. *in Ezech.* 4, 13)²⁵

The data gleaned from our corpus even document remarkable passages featuring two instantiations of the verb *loquor* in the very same context, first with R expressed through *ad* + accusative and then with the dative (even encoding the same referent). Interchangeable uses of *ad* and the dative case for the expression of the R exemplified in (28) and (29) suggest that the semantic parameter of ‘crowd addressed publicly’ is no longer important in these texts.

- (28) *haec omnia locutus est* *Iesus in parabolis*
 this-ACC.PL all-ACC.PL tell-IND.PFV.DEP.3SG Jesus-NOM in parable-ABL.PL
ad turbas et sine parabolis non
 to crowd-ACC.PL and without parable-ABL.PL not
loquebatur eis
 talk-IND.IPFV.DEP.3SG he-DAT.PL
 ‘Jesus told all these things in parables to the crowd, and did not talk to them without parables’. (Hier. *in Matth.* 2, 924)

²⁵ To be compared, for instance, with:

- (i) *ad insanientem populum sic locutus est*
 to be.insane-PTCP.IPFV.ACC.SG crowd-ACC.SG so talk-IND.PFV.3SG.DEP
 ‘So talked to the crowd who was insane.’ (Hier. *in Ezech.* 4, 16, 843).

- (29) *si vis vera amicitia*
 if want-IND.PRS.2SG true-ABL.SG friendship-ABL.SG
delectari, esto amicus dei,
 take.pleasure-INF.PRS.DEP be-IMP.FUT.2SG friend-NOM.SG God-GEN
sicut moyses, qui loquebatur deo, quasi
 as M.-NOM REL.NOM.SG talk-IND.IPFV.DEP.3SG God-DAT as.if
amicus ad amicum
 friend-NOM.SG to friend-ACC.SG
 ‘If you want to take pleasure in true friendship, be friends with God, as Moses,
 who talked with God as a friend to a friend’. (Hier. *in Mich.* 2, 7)

In addition, *ad* is also chosen to express the R participant in one-to-one conversations, sometimes held in private settings, as already seen in (24) above, where *ad* is used to express the context of an informal exchange between friends. These one-to-one conversations include both interactionally asymmetric contexts, where the speaker is authoritative and has a high degree of communicative power (30), and symmetrical ones, as (31), where Helias, obeying the command of God, speaks to the widow of Serepta (see also (32) below, depicting a wife talking to his husband):

- (30) *Loquitur autem deus ad Moysen*
 talk-IND.PRS.DEP.3SG but God-NOM to M.-ACC
 ‘But God says to Moses [. . .]’ (Aug. *serm.* 6, 64)
- (31) *Helias loquitur ad eam quod audivit*
 H.-NOM tell-IND.PRS.DEP.3SG to she-ACC.SG REL.ACC.SG hear-IND.PFV.3SG
 ‘Helias tells her what he heard’. (Aug. *serm.* 11, 161)

These data document a process of further expansion of the *ad* construction beyond its original niche of emergence and conventionalization: in (30) and (31), *loquor* takes *ad* without conveying the idea of a public appeal in front of a crowd but with the specific meaning of ‘to address, to approach, to turn to someone’. This is also clear in examples (32) and (33), where *loquor* co-occurs with other verbs of saying, such as *annuntio* (32), *dico* and *respondeo* (33). While the R of *loquor* is expressed by *ad* and the accusative, the R of *annuntio*, *dico* and *respondeo* takes the dative case instead. Thus, the use of the two alternative constructions with different co-occurring verbs seems to point to a semantically fine-grained distinction in the domain of communication verbs: *loquor* indicates the act of establishing a communicative contact, of addressing someone and preferentially takes *ad*; *annuntio*, *dico* or *respondeo* on the other hand convey the true communication act of saying something and pattern consistently with dative marked Rs.²⁶

- (32) *Sponsa loquitur ad sponsum: Annuntia*
 bride-NOM.SG say-IND.PRS.DEP.3SG to bridegroom-ACC.SG tell-IMP.PRS.2SG
mihi quem dilexit anima mea
 I-DAT REL.ACC.SG love-IND.PFV.3SG soul-NOM.SG my-NOM.SG
 ‘The bride said to the bridegroom: tell me whom my soul loved’. (Aug. *serm.* 46, 36)

²⁶ Note, however, that *dico* can take *ad* + accusative to express the R in Late Latin, although this is a minority pattern. This is documented by the corpus study conducted by Adams & De Melo (2016), who, on the basis of their data, conclude that ‘[b]etween about 200 and 500 (the dates are approximate) there is a higher incidence of *ad* with verbs of saying than in the classical period, but the construction is still subject to restrictions and outnumbered by the dative’ (2016: 103). This holds for *dico* as well, although with this verb the prepositional construction is much rarer than with *loquor* (Adams & De Melo 2016: 122). On the influence projected by biblical usage on the selection of *ad* with verbs of saying, see further Sznajder (2012).

- (33) *cum asclepius, ad quem maxime loquebatur,*
 after A.-NOM to REL.ACC.SG very.much talk-IND.IPFV.DEP.3SG
ei respondisset atque dixisset [. . .]
 he-DAT.SG answer-SBJV.PPF.3SG and say-SBJV.PPF.3SG
 ‘After Asclepius, to whom he talked very much, answered and said to him [. . .]’
 (Aug. *civ.* 8, 23)

In conclusion, the verb-specific construction alternation discussed in this section is motivated by a conspiracy of independent but interacting factors. They are both language internal and language external. Internal factors basically involve the emergence, as early as in Classical Latin, of a metaphorically motivated analytic variant through which the R was recategorized as the Goal of a message and expressed by *ad*. In Late Latin, this tendency was substantially boosted by a parallel but independent evolution, essentially due to language contact with Greek and Hebrew versions of biblical texts. The independent source of these distinct developments is reflected in the fact that in Late Latin religious texts, *loquor ad* does not necessarily mean ‘to speak publicly before a crowd’ (the Classical Latin meaning) but frequently ‘to address someone’, often a single person and also privately. Genre-based evidence drawn from our corpus corroborates this claim: while in Augustine’s and Hieronymus’ texts, which are full of biblical echoes and citations, the *ad* + accusative pattern is widely attested, it is never found in Gregory of Tours’ historiographic work or in Gregorius Magnus’ epistles, where *loquor* always takes the dative. To be precise, of the 1,883 hits for *loquor* found for Hieronymus, we have detected 311 uses of *ad* to encode the R; in our Augustinian corpus, on the other hand, *ad* is used 25 times of the 885 overall attestations of the verb, with a higher frequency (21 instances) in the more colloquial *Sermones*. This author-based distinction shows that *ad* started encroaching on the domain of the dative case for the expression of R with a significant frequency in Christian Latin, ultimately due to a contact-induced development, which is both text based and culturally driven, originating within a delimited discourse tradition.

One last remark is in order at this point, namely that, as observed in Section 5, nouns and pronouns point to quite a neat distinction in their preferred argument realization as R. To exemplify this claim, we shall focus on the third person singular of the present indicative and perfect indicative, which are the most frequently attested forms of *loquor* in Hieronymus. The data in Table 3 illustrate the different uses of *locutus est* in terms of argument structures: apart from the occurrences of the verb in the absolute use or only with the T, the most frequent construction is that in which the R corresponds to *ad* + accusative (40 occurrences), whereas the dative construction is attested only 13 times.

Moreover, the data for *loquitur* and *locutus est* gleaned from Hieronymus show that the *ad* construction tends to occur more frequently when the R is expressed as a noun rather than as a pronoun (Figure 2). This distribution is particularly clear in the case of *loquitur*: the *ad* construction is attested 238 times of 1102 total occurrences; in 63 cases with the R corresponding to a pronoun, whereas in 175 cases, the R corresponds to a noun.

Table 3. The argument structure of *locutus est* in Hieronymus

ARGUMENT STRUCTURE OF <i>LOCUTUS EST</i>	TOKENS
Intransitive	87
Intransitive (plus <i>de</i> + ablative)	7
Only T expressed	44
R expressed with the dative	13
R expressed with <i>ad</i> + accusative	40
R expressed with <i>cum</i> + ablative	6
Total	197

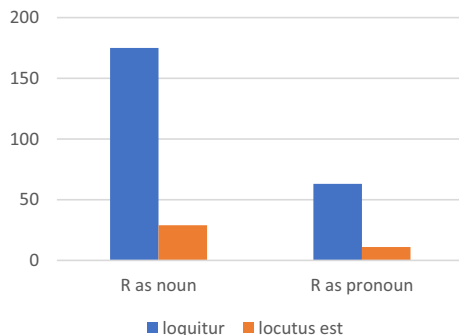


Figure 2. Use of *ad* with R expressed as a noun versus as a pronoun in Hieronymus

In conclusion, in our view, the impact of the biblical model interacted consistently with a parallel language-internal evolution. This is one key factor that explains why *loquor* is more likely to be used with the prepositional pattern than any other ditransitive verb we have analysed in this study. The fact that it admitted this constructional variant from Classical Latin onwards made it the ‘best candidate’ of the entire series to instantiate the prepositional pattern in a broader range of contexts – a later tendency that was enhanced by an independent, genre-based external tradition. Within this complex scenario, nouns accommodated the prepositional patterns more easily than pronouns; the latter being more strongly associated with the dative case. As we will see in the next section, this is a crucial point in the context of our diachronic analysis.

6. DISCUSSION AND CONCLUSIONS: ACCOUNTING FOR A MISSING DATIVE ALTERNATION

This last section offers a comprehensive account of the diachronic scenario depicted in Section 5, with a view to explaining why the different semantic classes of ditransitive verbs are considered to diverge in their historical development and which functional principles are relevant to understand their evolution (Section 6.1). A second aim is to answer the research questions put forward in Section 2: why the dative alternation did not arise during the transition from Late Latin to Romance, and what kind of motivations can explain patterns of diachronic stability and changes that did not occur (Section 6.2).

6.1. Functional factors at work in the diachrony of Late Latin ditransitives

The first general questions we wish to address in our discussion are as follows: why did the ditransitive verbs considered follow different pathways of development? What do their developmental paths have in common, and why? What are the triggers and constraints that determined their historical evolution and gave rise to the complex constructional scenario we have depicted so far? In our view, the main factors at work in shaping the diachrony of Late Latin ditransitives are functional and usage based in nature: frequency, markedness, productivity, analogy and semantic prototypicality, which are all closely intertwined with one another. Let us explore their interplay in the diachronic development of Late Latin ditransitives.

First, frequency factors can explain why two low token frequency²⁷ verbs such as *celo* and *flagito* lost the DOC, a minority pattern that was instantiated by very few verbs in Latin. This resulted in this marginal construction being radically levelled out by the prepositional competitive structure with both these low token frequency verbs. However, our data document a distinction between the two. *Flagito*, a verb of demanding, generalized the prepositional pattern typically found with verbs of dispossession, whereby R is metaphorically conceptualized as a source of information and encoded with *a/ab* + ablative. Such a prepositional construction was already used with this verb in earlier stages of the language and had already increased between Early and Classical Latin – which testifies to its productivity, perhaps also corroborated by its use with the conceptually neighbouring verbs of dispossession. It is worth noting at this juncture that the extension of the construction featuring the preposition *ab* with *flagito* demonstrates how its counterpart built on *ad* does not constitute the only option as a ‘passe-partout’ alternative structure in the domain of ditransitivity. Although in principle *flagito* could have undergone analogical attraction from semantically close verbs of saying that selected *ad* for the expression of the R, this was not the case. This points to the relevance of metaphorical motivations in constraining constructional developments on the one hand, and the availability of multiple-source constructions for the encoding of ditransitive arguments, selected in view of specific semantic implications of different verbs, on the other. The verb *celo*, by contrast, did not admit the IOC in older stages of development. When in Late Latin, the DOC discontinued this verb, *celo* was attracted by the most frequent and unmarked ditransitive pattern featuring the R in the dative case, although – it is worth underlining here – it also documents the expression of the R through *ab* + ablative, in the same way as other verbs of dispossession.

Second, these tendencies go hand in hand with the high degree of markedness exhibited by the DOC, a remarkably low-type frequent argument structure in Latin, whose interpretation moreover is rendered cognitively complex by the fact that R and T are not formally distinguished. Our data show that this marked pattern underwent constructional shifts towards the more frequent and basic competing indirect structure if the verbs involved were not frequent enough to resist attraction, as the cases of *flagito* and *celo* testify. If, by contrast, a verb instantiating this minority pattern was frequent enough, as in the case of *doceo*, it could resist structural levelling, as shown in Section 5.3.1. Token frequency thus proves to be a crucial factor in preserving low-type frequent patterns because it correlates directly with the degree of entrenchment of a construction (cf., e.g. Croft & Cruse 2004), significantly enhancing its diachronic stability. In conclusion, low token frequency verbs are less capable of preserving a marked argument structure over time. High token frequency verbs, by contrast, are more entrenched in the minds of speakers and can develop a greater degree of constructional strength – which possibly prevents a more productive and general structure from spreading irrespective of usage-based constraints.

Doubters might claim at this point that, according to these observations, also the secundative alignment, another infrequent argument structure instantiated by a narrow set of verbs in Latin (including *dono*, discussed in Section 5.1.2), must have declined during the late stage of historical development under scrutiny, whereas in fact this was not the case. In our view, a key motivation to explain the diachronic persistence of this unproductive structure may rest on its *schema coherence* – that is, the inner consistency between verbs instantiating a given construction (Barðdal 2008: 27) – since its functional nucleus is that of an instrumental construction where the entity encoded with the ablative could also be added to bivalent verbs as an ‘instrumental adjunct’. Narrowing down our discussion to ditransitive verbs, those which can instantiate the secundative alignment show an extraordinarily high degree of

²⁷ We are considering here the relative frequency of the six verbs examined as they are documented in our corpus.

semantic relatedness as well, involving two pairs of synonymic lexemes: *dono* and *munero* ‘to present (a present)’, on the one hand, and *dedico* and *sacro* ‘to dedicate, to consecrate’, on the other. All in all, their semantic scope centres around the idea of benefiting the R with a gift or consecration, conceptualized as ‘equipment’ which with the R is provided. Barðdal (2008), who proposed a usage-based view of productivity, has extensively shown that schema coherence is a decisive factor in promoting the productivity of low-type frequent constructions over time. This seems to be precisely the case of the accusative + ablative construction discussed in this study.

One last issue to be considered concerns the semantic prototypicality exhibited by ditransitive verbs. As shown by scholarship in cognitive semantics, generally speaking ‘linguistic categories may be fuzzy at the edges but clear in the centre’ (Geeraerts 2010: 183). As is well known, prototypicality effects can be also traced in diachronic constructional change (Coleman & De Clerck 2011), with marginal uses of a category being more open to processes of structural innovation, in precisely the same way as peripheral meanings of lexical items are expected to resist less forcefully over time (Geeraerts 2010: 231–234). As far as ditransitives are concerned, in Section 2, we saw that the core meaning of ditransitives involves the concrete displacement of the T from the A to the R. Cognitive transfer verbs, on the other hand, are conceptually more distant from the semantic centre of the category since they point to an abstract process where the transferred objects (typically, words and ideas) are less clearly perceivable (they can be heard and understood, but not seen or touched). If we consider these verbs as arranged along a semantic continuum, with verbs of physical transfer at its prototypical centre and verbs of cognitive transfer at its periphery, it is interesting to note that the core members of the category, namely *do* and *dono*, are precisely those which demonstrate the highest possible degree of diachronic stability. The former continues to be used with the indirect construction featuring an accusative marked T and a dative marked R. Likewise, also the construction alternation instantiated by the verb *dono* is historically stable: both the indirective and the secundative alignment types are diachronically persistent with this verb. In addition, both *do* and *dono* admit the innovative *ad* alternative pattern only very rarely and exclusively when a clear allative meaning is contextually implied, thus forcing the interpretation of R in terms of a metaphorical Goal. Less central ditransitive verbs such as those of cognitive transfer, by contrast, are more open to structural fluctuation in the form of construction alternation that admits the innovative prepositional pattern with *ad* or earlier constructions featuring *ab/ex/de*. This provides additional diachronic evidence in support of one of our core claims in this study, namely that each verb has its own history – more often than not, shaped and constrained by locally interacting, usage-based, functional motivations.

6.2. Diachronic stability versus attraction in the transition to romance

In Section 2, we mentioned the relevance of a comparison between the history of English and Latin ditransitives, since the initial stage in the two languages seems to be quite similar. In Old English (OE), verbs of physical transfer prefer the dative + accusative pattern and do not use the construction made up of *to* + dative to denote a human R, as in Latin, although the prepositional construction ‘was well established with certain verb classes in OE, particularly with caused-motion and communication verbs’ (De Cuypere 2015: 16; see also Zehentner 2017: 152; Broccias & Torre 2020: 178–180), this being another common feature shared with Latin, where verbs of saying, like *loquor*, generally admit the *ad* construction at a late stage. Moreover, in OE, verbs of dispossession were frequently attested with a prepositional pattern featuring *from* or *of*. In Middle English (ME), the *to* construction became more frequent and was extended to different semantic types, including verbs of physical transfer like *give*, determining an alternation with those non-prepositional patterns which would merge

into the DOC after the loss of the case system.²⁸ This represents the rise of the dative alternation, which may be interpreted as the result of the creation of an ‘associative relation’ between the *to* construction and the DOC (Zehentner 2017: 168; see also Zehentner 2019) or as the result of attraction (Broccias & Torre 2020: 185–186, following De Smet et al. 2018). This means that in ME the two constructions were part of the same constructional network, corresponding to alloconstructions, as mentioned in Section 2, that is, to functionally overlapping variants for the expression of a transfer. Subsequently, as demonstrated by Coleman & De Clerck (2011: 188), confirming previous results, ‘the array of verbs compatible with the English DOC has been more and more reduced. [...] The DOC has been subject to a process of *semantic specialization or narrowing*’, which implies that its range of meanings has become more restricted, while its semantic coherence increased, encouraging its stability across time (Coleman & De Clerck 2011: 203, 206; Zehentner 2017: 155, 167).

In principle, the loss of the Latin case system in the nominal domain could have caused, as in ME, the merging of the non-prepositional expressions of the R (through the dative or the accusative) into a DOC and the rise of the dative alternation, since also prepositional constructions were already used to denote the R, in some cases alternating with other patterns. In order to explain why this change did not take place, two hypotheses are possible:

- i. During the latest stage of Latin, at the moment of transition to Romance, the *ad* construction had already become the only strategy to express the R, substituting the dative and the accusative, as well as other prepositional constructions (i.e. *ab/ex/de* + ablative).
- ii. A situation of co-existence between different constructions continued until the transition to Romance, but, with the erosion of the case system, there was pressure to keep the distinction between R and T transparent, which at that stage was possible only through prepositional strategies. This led to the generalization of the *ad* construction, which was the ‘best candidate’ for this purpose (for the reasons mentioned in Section 3), and then, of indirective alignment.

There is no evidence for the first hypothesis in our data, which, on the contrary, show that the dative presents a high degree of diachronic stability as the prototypical expression of the R in Late Latin, consistent with the fact that the case system ‘continued unscathed and unchanged for centuries’ (Ledgeway 2012: 22) and that there was a gradual extension of prepositional constructions (Pinkster 1990; Adams 2013; Adams & De Melo 2016) as well as ‘no abrupt move from syntheticity to analyticity’ (Ledgeway 2012: 22).

On the other hand, the second hypothesis is consistent with the pathways of change and the instances of stability that we have identified, which suggest that functional and semantic transparency seems to act as a constraint on the substitution of the dative through *ad* or *ab*. Although, in principle, we agree on the fact that identification of arguments in Latin and the Romance languages does not exclusively depend on nominal declension but on many factors (including lexical factors related to valency and factors related to constituency: cf. Schøsler 2018; see also Pinkster 2018), the need for distinguishing between R and T using formal means is undoubtedly characteristic of the Latin system, especially with prototypical ditransitives (like give verbs).

This hypothesis is also strengthened by the fact that the double accusative construction (the only one in which R and T are not formally distinguished) tended to be substituted already in Early Latin by prepositional constructions or through the dative when the R needed to be

²⁸ ‘Concerning constituent order within the constructions, the arguments of both members of the dative alternation became increasingly fixed to certain positions in the course of the Middle English period. While the DOC became primarily associated with [REC-TH] order, the to-POC showed a growing restriction to [TH-toREC] ordering [...]. Essentially, this led to the PDE dative alternation as we know it today, although the canonical orders are still subject to change (e.g. due to issues like heavy-noun shift) and regional variation’ (Zehentner 2017: 153).

differentiated from the T (for instance, because they were both animate: cf. Section 5.2). This means that neutral alignment tended to be substituted by indirective alignment, which was associated with prototypical ditransitives. This tendency, which continues throughout the history of Latin, as seen in the cases of *celo* and *flagito*, is understandable if one considers that the double accusative construction was not productive, which means that ‘it was neither frequent nor fully consistent semantically’ (Napoli 2020a, Napoli 2020b: 128) and did not involve prototypical ditransitives (i.e. verbs of physical transfer), but only verbs of dispossession and verbs of cognitive transfer, in other words, peripheral members of the category. It is no accident that this construction is preserved by *doceo*, whose T and R are typically inanimate and animate, respectively, with the consequence that no ambiguity arises in their interpretation. At the same time, the stability shown by *doceo* in preserving DOC in Late Latin – while other verbs (such as *celo* and *flagito*), probably less frequently used, at least judging from our texts, were substituting it – is particularly interesting if one considers that this form, which belongs to the literary language, will be almost completely lost in the Romance languages²⁹ and replaced by a form derived from the Late Latin verb *insignāre* ‘to engrave signs’. In this respect, it is important to note that the frequency of *doceo* seems to decrease across the centuries: if we look at the 109 occurrences of this verb in the historical texts in our corpus, we can observe that they are mainly found in texts from the fourth and fifth centuries, whereas there are only 13 occurrences in texts from the sixth and seventh centuries. It is equally relevant that the DOC is partially preserved also in the early stages of some Romance languages but as a form of ‘fidelity’ to the classical construction: in Old Italian, for instance, there are traces of a DOC which alternates with the prepositional construction introduced by *a*, but is limited to a few ditransitives covering the same semantic meanings of Latin ditransitives with a double accusative, like *insegnare*, which substitutes *doceo*, and *domandare* ‘to ask’ (cf. the discussion in Napoli 2020a, Napoli 2020b).

Finally, the fact that morphological case was preserved in the pronominal system might have helped maintain the distinction between R and T: it is worth remembering that the R of ditransitives is typically human and animate and that personal pronouns are readily expected to denote the R in ditransitive structures. We saw, for instance, that with a verb like *loquor*, alternating between two constructions, the dative expression of the R seems to be preferred by pronominal forms over the *ad* construction. However, this point needs to be investigated in more depth using statistical data and examining factors related to Information Structure (see fn. 18).

These observations do not entail that analogy played no role in this picture, also in the form of attraction between different constructions. We believe, in particular, that attraction took place between the dative + accusative construction and the *ad* construction within specific classes of verbs, such as verbs of saying (see the case of *loquor* discussed in Section 5.3.2), with the consequence that the two constructions showed, at least in some contexts, functional overlap. Moreover, productivity and analogy are the factors that explain the extension of syntactic argument structures different from the double accusative and from the *ad* construction to verbs of dispossession and demanding (see *celo* and *flagito* in Section 5.2). Analogy is also what explained the fact that, as noted by Norberg (1943: 108–115), in Late Latin, the double accusative construction was occasionally extended to some forms, including verbs such as *erudio*, *imbuo*, *instituo* and *instruo* when used with the same meaning as *doceo*, and verbs, such as *dono*, which allowed alternation between indirective and secundative alignment, as an effect of ‘Kontamination’ between the two constructions (Norberg 1943: 111–112), although this only concerns very late texts on technical subjects and/or of low

²⁹ See, however, the Italian noun *docente* ‘teacher’ derived from the lexicalization of the Latin present participle of *doceo*.

register (cf. Adams 2013: 323–325; cf. also Fedriani 2020: 71, Napoli 2020a: 109–110). However, occurrences documenting this extension are quite rare and late. In other words, although the double accusative construction did not disappear in Late Latin, it never became productive. The attraction of other verbs within this construction is restricted to a few cases and conditioned by lexical factors.

In conclusion, we recognize that analogy is a shaping force in language, but, at the same time, we share the view that it does not necessarily generate structural convergence, in the sense that constructions that are functionally similar – for instance, because they may express the same argument, as in our case – do not necessarily become alloconstructions and do not strengthen each other (unlike what happened in English). Finally, our data confirm De Smet et al.'s (2018) conclusion that languages do not necessarily tend to eliminate functional overlap when driven by isomorphic pressure since Latin data show that some verbs preserve constructional alternation for centuries, attesting to a high level of diachronic stability.

Corpus of Christian texts (from the Library Latin texts)

Augustinus Hipponensis, *Sermones ad populum*.

Augustinus Hipponensis, *De civitate Dei*.

Gregorius Magnus, *Registrum epistularum*.

Hieronymus, *Adversus Helvidium de Mariae virginitate perpetua*.

Hieronymus, *Adversus Iovinianum*.

Hieronymus, *Adversus Vigilantium*.

Hieronymus, *Commentarii (in Danielelem; in evangelium Matthaei; in Ezechielem; in Isaiaem; in iu epistulas Paulinas; in prophetas minores; in psalmos; in Ecclesiasten)*.

Lactantius, *Divinae Institutiones*.

ACKNOWLEDGEMENT

Open Access Funding provided by Università degli Studi di Genova within the CRUI-CARE Agreement.

E-mail: chiara.fedriani@unige.it

REFERENCES

- ADAMS, JAMES, 2013. *Social Variation and the Latin Language*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511843433>
- ADAMS, JAMES & WOLFGANG DE MELO, 2016. 'Ad versus the dative: From early to late Latin', in James Adams & Nigel Vincent (eds.), *Early and Late Latin. Continuity or Change?* Cambridge: Cambridge University Press. 87–131. <https://doi.org/10.1017/CBO9781316450826.006>
- BAÑOS BAÑOS, JOSÉ MIGUEL, 1996. 'Litteras Neroni/ad Neronem mittere: ¿alternancia dativo/ad + acus.?', in Ana Agud, José Antonio Fernández Delgado, & Agustín Ramos Guerreira (eds.), *Las lenguas de corpus y sus problemas lingüísticos*. Madrid: Ediciones Clásicas. 217–236.
- BAÑOS BAÑOS, JOSÉ MIGUEL, 1998. 'Sintaxis y semántica del dativo objeto indirecto: su concurrencia con ad-acus. en latín clásico', in María Esperanza Torrego (ed.), *Nombres y funciones: estudios de sintaxis griega y latina*. Madrid: U.A.M. Ediciones Clásicas. 11–41.
- BAÑOS BAÑOS, JOSÉ MIGUEL, 2000. 'Vulgarismos sintácticos en Plauto (II): Quae ad patrem vis nuntiari (CAP.360)', in Benjamin García-Hernández (ed.), *Latín vulgar y tardío. Homenaje a Veikko Väänänen (1905–1997)*. Madrid: Ediciones Clásicas. 1–15.
- BARÖDAL, JOHANNA, 2008. *Productivity: Evidence from Case and Argument Structure in Icelandic*. Amsterdam: John Benjamins.
- BOUVERET, MYRIAM, 2021. *Give constructions across languages*. Amsterdam: John Benjamins.
- BOUZOUITA, MIRIAM, ANNE BREITBARTH, LIEVEN DANCKAERT & MELISSA FARASYN, 2019. 'The determinants of diachronic stability', in Anne Breitbarth, Miriam Bouzouita, Lieven Danckaert, & Melissa Farasyn (eds.), *The*

- determinants of diachronic stability*. Amsterdam & Philadelphia: John Benjamins. *Linguistik Aktuell/Linguistics today* 254. 1–10.
- BROCCIAS, CRISTIANO & ENRICO TORRE, 2020. 'Attraction and differentiation in the history of the English dative and benefactive alternations', in Chiara Fedriani & Maria Napoli (eds.), *The diachrony of ditransitives*. Berlin: Mouton de Gruyter. 169–195. Trends in Linguistics Series [TiLSM] 351.
- BRUENING, BENJAMIN, 2018. 'Double object constructions and prepositional dative constructions are distinct: A reply to Ormazabal and Romero', *Linguistic Inquiry* 49. 123–150.
- BYBEE, JOAN, 2003. 'Mechanisms of change in grammaticization: The role of frequency', in Brian D. Joseph & Richard D. Janda (eds.), *The Handbook of Historical Linguistics*. Oxford: Blackwell. 602–623.
- COLLEMAN, TIMOTHY, 2020. 'The emergence of the dative alternation in Dutch: Towards the establishment of a horizontal link', in Chiara Fedriani & Maria Napoli (eds.), *The diachrony of ditransitives*. Berlin: Mouton de Gruyter. 137–168. Trends in Linguistics Series [TiLSM] 351.
- COLLEMAN, TIMOTHY & BERNARD DE CLERCK, 2011. 'Constructional semantics on the move: On semantic specialization in the English double object construction', *Cognitive Linguistics* 22. 183–210.
- COMRIE, BERNARD, 2013. 'Alignment of case marking of full noun phrases', in Matthew S. Dryer & Martin Haspelmath (eds.), *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology <http://wals.info/chapter/98> (accessed 14 June 2021)
- CROFT, WILLIAM & ALAN D. CRUSE, 2004. *Cognitive Linguistics*. Cambridge: Cambridge University Press.
- DAHL, EYSTEIN, 2020. 'The diachrony of ditransitives in Vedic Sanskrit', in Chiara Fedriani & Maria Napoli (eds.), *The diachrony of ditransitives*. Berlin: Mouton de Gruyter. 231–257. Trends in Linguistics Series [TiLSM] 351.
- DAHL, ÖSTEN, 2004. *The Growth and Maintenance of Linguistic Complexity*. Amsterdam & Philadelphia: John Benjamins.
- DE CUYPERE, LUDOVIC, 2015. 'The old English *to*-dative construction', *English Language and Linguistics* 19. 1–26.
- DRYER, MATTHEW S., 1986. 'Primary objects, secondary objects, and antidative', *Language* 62(4). 808–845.
- FEDRIANI, CHIARA, 2020. 'The spread of the *ad* construction in Merovingian Latin: Identifying semantic paths in the domain of ditransitives', in Chiara Fedriani & Maria Napoli (eds.), *The Diachrony of Ditransitives*. Berlin: Mouton de Gruyter. 61–96. Trends in Linguistics Series [TiLSM] 351.
- FEDRIANI, CHIARA & MARIA NAPOLI, 2020. 'How do ditransitives change?', in Chiara Fedriani & Maria Napoli (eds.), *The Diachrony of Ditransitives*. Berlin: Mouton de Gruyter. 1–18. Trends in Linguistics Series [TiLSM] 351.
- FEDRIANI, CHIARA & MICHELE PRANDI, 2014. 'Exploring a diachronic (re)cycle of roles. The dative complex from Latin to romance', *Studies in Language* 38(3). 566–604.
- GEERAERTS, DIK, 2010. *Theories of Lexical Semantics*. Oxford: Oxford University Press.
- HASPELMATH, MARTIN, 2005. 'Argument marking in ditransitive alignment types', *Linguistic Discovery* 3 <https://journals.dartmouth.edu/cgi-bin/WebObjects/Journals.woa/1/xmlpage/1/article/280?htmlOnce=yes> (accessed 12 June 2021)
- HASPELMATH, MARTIN, 2021. 'Role-reference associations and the explanation of argument coding splits', *Linguistics* 59(1). 123–174.
- KORN, AGNES & ANDREJ MALCHUKOV (eds.), 2018. *Ditransitive constructions in a cross-linguistic perspective*. Wiesbaden: Reichert.
- LEDGEWAY, ADAM, 2012. *From Latin to Romance*. Oxford: Oxford University Press.
- LÖFSTEDT, EINAR, 1942. *Syntactica*, Volume I. Lund: Gleerup.
- LURAGHI, SILVIA, 2010. 'Adverbials', in Philip Baldi & Pierluigi Cuzzolin (eds.), *New Perspectives on Historical Latin Syntax*, Volume 2. Berlin: de Gruyter. 19–96.
- MALCHUKOV, ANDREJ, 2017. 'Exploring the domain of ditransitive constructions: Ditransitive splits and ditransitive alternations across languages', in Lars Hellan, Andrej Malchukov, & Michela Cennamo (eds.), *Contrastive Studies in Verbal Valency*. Amsterdam: Benjamins. 177–219.
- MALCHUKOV, ANDREJ, MARTIN HASPELMATH & BERNARD COMRIE, 2010. 'Ditransitive constructions: A typological overview', in Andrej Malchukov, Martin Haspelmath, & Bernard Comrie (eds.), *Studies in Ditransitive Constructions. A Comparative Handbook*. Berlin: Mouton de Gruyter. 1–64.
- MANCINI, MARCO, 2019. 'The use of the past to explain the past. Roman grammarians and the collapse of quantity', in Michela Cennamo & Claudia Fabrizio (eds.), *Historical Linguistics 2015. Selected Papers from the 22nd International Conference on Historical Linguistics, Naples, 27–31 July 2015*. Amsterdam: Benjamins. 27–55.
- MARGETTS, ANNA & PETER AUSTIN, 2007. 'Three-participant events in the languages of the world: Towards a crosslinguistic typology', *Linguistics* 45(3). 393–451.
- NAPOLI, MARIA, 2018. 'Ditransitive verbs in Latin: A typological approach', *Journal of Latin Linguistics* 17(1). 51–91.
- NAPOLI, MARIA, 2020a. 'Old Italian ditransitive verbs: Between alternation and change', in Chiara Fedriani & Maria Napoli (eds.), *The Diachrony of Ditransitives*. Berlin: Mouton de Gruyter. 97–136. Trends in Linguistics Series [TiLSM] 351.
- NAPOLI, MARIA, 2020b. 'Eu vorria esserj insignatu: sulla struttura argomentale di *insignari* in siciliano antico', in Patrizia Del Puente, Francesca Guazzelli, Lucia Molinu, & Simone Pisano (eds.), *Tra etimologia romanza e dialettologia. Studi in onore di Franco Fanciullo*. Alessandria: Edizioni dell'Orso. 327–342.
- NEWMAN, JOHN, 1996. *Give: A cognitive linguistic study*. Berlin: Mouton De Gruyter.
- NORBERG, DAG, 1943. *Syntaktische Forschungen auf dem Gebiete des Spätlateins und des frühen Mittellateins*. Uppsala: Universitets Arsskrift.
- PETRÉ, PETER & FREEK VAN DE VELDE, 2018. 'The real-time dynamics of the individual and the community in grammaticalization', *Language* 94. 867–901.

- PINEDA, ANNA & JAUME MATEU, 2020. 'Dative constructions across languages: An introduction', in Anna Pineda & Jaume Mateu (eds.), *Dative constructions in romance and beyond*. Berlin: Language Science Press. iii–xiii.
- PINKSTER, HARM, 1990. 'The Development of Cases and Adpositions in Latin', in Harm Pinkster & Inge Genee (eds.), *Unity in Diversity. Papers Presented to Simon C. Dik on his 50th Birthday*. Dordrecht: Foris. 195–209.
- PINKSTER, HARM, 2015. *Oxford Latin Syntax*. Volume 1: *The Simple Clause*. Oxford: Oxford University Press.
- PINKSTER, HARM, 2018. 'La contribution des marques casuelles à l'interprétation des propositions dans trois extraits de textes latins tardifs et médiévaux', in Anne Carlier & Céline Guillot-Barbance (eds.), *Latin tardif, français ancien: Continuités et ruptures*. Berlin: De Gruyter. 97–126. Beiheft zur Zeitschrift für Romanische Philologie 420.
- PRANDI, MICHELE, 2020. 'Roles and grammatical relations in synchrony and diachrony: The case of the indirect object', in Chiara Fedriani & Maria Napoli (eds.), *The Diachrony of Ditransitives*. Berlin: Mouton de Gruyter. 1–18. Trends in Linguistics Series [TiLSM] 351.
- RAMCHAND, GILLIAN K., 2013. 'Argument structure and argument structure alternations', in Marcel den Dikken (ed.), *The Cambridge Handbook of Generative Syntax*. Cambridge: Cambridge University Press. 265–321.
- REDDY, MICHEAL J., 1979. 'The conduit metaphor: A case of frame conflict in our language about language', in Andrew Ortony (ed.), *Metaphor and Thought*. Cambridge: Cambridge University Press. 284–310.
- RICE, SALLY & KAORI KABATA, 2007. 'Cross-linguistic grammaticalization patterns of the allative', *Linguistic Typology* 11. 451–514.
- SCHÖSLER, LENE, 2018. 'How useful is case morphology? From Latin to French', in Anne Carlier & Céline Guillot-Barbance (eds.), *Latin tardif, français ancien: Continuités et ruptures*. Berlin: De Gruyter. 127–170. Beiheft zur Zeitschrift für Romanische Philologie 420.
- SIEWIERSKA, ANNA, 2013. 'Alignment of verbal person marking', in Matthew S. Dryer & Martin Haspelmath (eds.), *The World atlas of language structures online*. Leipzig: Max Planck Institute for Evolutionary Anthropology <https://wals.info/chapter/100> (accessed 14 June 2021)
- DE SMET, HENDRIEK, FRAUKE D'HOEDT, LAUREN FONTEYN & KRISTEL VAN GOETHEM, 2018. 'The changing functions of competing forms: Attraction and differentiation', *Cognitive Linguistics* 29(2). 197–234.
- SORNICOLA, ROSANNA, 2013. 'Decomposizioni e ricomposizioni di sistemi. I pronomi personali delle lingue romanze tra paradigmatica e sintagmatica', in E. Casanova & C. Cesáreo (eds.), *Actas del XXVI Congreso Internacional de Lingüística y Filología Románica*. Berlin: De Gruyter. 419–440.
- STEIN, DIETER, 2020. 'Atomizing linguistics change: A radical view', in Bridget Drinka (ed.), *Historical linguistics 2017. Selected papers from the 23rd International Conference on Historical Linguistics, San Antonio, Texas, 31 July – 4 August 2017*. Amsterdam: John Benjamins. 318–339.
- SVENNUNG, JOSEF, 1936. *Untersuchungen zu Palladius und zur lateinischen Fach- und Volkssprache*. Uppsala: Almqvist & Wilscells.
- SZNAJDER, LYLIANE, 2012. '*Dixit autem serpens ad mulierem* / *Mulieri quoque dixit*: la double expression de l'allocutaire dans les propositions introductrices de discours direct dans la Vulgate', in Frédérique Biville, Marie-Karine Lhommé, & Daniel Vallat (eds.), *Latin vulgaire latin tardif IX, Actes du IXe colloque international 'latin vulgaire – latin tardif,' (Lyon, 2–6 septembre 2009)*, Volume 49. Lyon: Collection de la maison de l'Orient et de la Méditerranée. 271–290.
- THÉORET, MICHEL, 1982. *Les discours de Cicéron: La concurrence du tour casuel et du tour prépositionnel*. Montréal: Presse de l'Université de Montréal.
- THORPE, LEWIS, 1974. *Gregory of Tours: The History of the Franks*. London: Penguin Classics.
- VAN LANGENDONCK, WILLY, 1998. 'The dative in Latin and the indirect object in Dutch', in William van Belle & Willy van Langendonck (eds.), *The Dative, vol.II: Theoretical and Contrastive Studies*. Amsterdam: John Benjamins. 221–259.
- ZEHENTNER, EVA, 2017. 'Ditransitives in middle English: On semantic specialisation and the rise of the dative alternation', *English Language and Linguistics* 21. 1–27.
- ZEHENTNER, EVA, 2019. *Competition in Language Change: The Rise of the English Dative Alternation*. Berlin & Boston: Mouton de Gruyter.