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Permittito aperiat oculum: typological considerations on P-lability and its interaction with morphosyntactic alignment in Latin medical texts

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Abstract: This paper explores the diachrony of Latin P-labile verbs (verbs that can be used transitively and intransitively with the preservation of the Patient and without a formal change), availing itself from evidence in medical and veterinary texts from the first to seventh century AD. The first part of the analysis discusses the influence of verbal semantics on the domain of lability in these texts and how lability developed as a diathetic strategy for the anticausative, the causative and the passive in Latin. Special attention is paid to the increase of P-lability as an anticausative strategy and its relation to the mediopassive and reflexive anticausative strategies in Late Latin. The second part of the analysis proposes a new explanation for the increase of P-lability in Latin and discusses the consequences of the development of a semantic-based alignment in Late Latin (the extended accusative) on the syntax and development of P-labile verbs.

Keywords: alignment; anticausative; diathesis; lability; Latin

1 Introduction

1.1 Lability

Lability is the phenomenon where verbs can show valency alternation without a formal change of the verb.[1] It has been traditionally divided into two distinct

1 Typological scholars call the phenomenon sometimes *ambitransitive* (Dixon 1994) or *optionally transitive* (Miller 1993), but lability is the most accepted term in the last couple of years (see Kulikov and Lavidas 2014). Formal traditions usually approach lability through the *unaccusativity* theory

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categories based on the intransitive-transitive alternation viz., *Agent-preserving lability* (or *A-lability*) and *Patient-preserving lability* (or *P-lability*). An example of P-lability in English is the verb *to open* (1) with the maintenance of the Patient as the sole argument of the intransitive alternant. In contrast, an example of A-lability is the verb *to eat* (2), in which the Agent is preserved as the sole argument of the intransitive alternant.[2]

(1) a. *John opens the door.*
b. *The door opens.*

(2) a. *Mary eats a sandwich.*
b. *Mary eats.*

Example (3) illustrates the labile use of the verb *aperio* 'open' in Plautus' oeuvre. The verb has been mostly attested as a transitive verb, as in (3a), but in a few instances, as illustrated in (3b), it can be used intransitively in the active voice with the preservation of the Patient in its subject (*foris* 'door' in this case) (cf. TLL 2, 0, 211, 81–225, 37). In Early and Classical Latin, the most dominant alternative for the active intransitive use of transitive verbs is the mediopassive, but also the reflexive construction (the verb in the active voice and a reflexive pronoun) has been attested as an anti-causative strategy.

(3) a. *Ecquis* *has* *aperit*
anyone:NOM.M.SG DEM.ACC.F.PL open:IND.PRS.3SG.ACT
foris?
door:ACC.F.PL
'Will anyone open those doors?'
(Plautus, *Mostellaria,* 900, 3rd/2nd century BC)
b. *foris* *aperit*
door:NOM.F.SG open:IND.PRS.3SG.ACT
'The door opens.'
(Plautus, *Persa,* 300, 3rd/2nd century BC)

In traditional Latin linguistics, P-labile verbs are often infelicitously called *intrinsic passive* (Flobert 1975) or *intransitivizations* (Feltenius 1977), referring to the fact that

(see especially Levin and Rappaport Hovav 1995: 82–134), while systemic-functional traditions sometimes speak of *ergative verbs* (see, for example, Davidse 1992).

2 Other syntactic alternations, such as the *locative alternation* (*Mary loaded hay on the wagon* vs. *Mary loaded the wagon with hay*) and the *dative shift* (*Mary gave John an apple* vs. *Mary gave an apple to John*) are, in a broad sense, also forms of lability, i.e., valency alternation without a formal change in the verb (Kulikov and Lavidas 2014: 872). Those alternations are, however, mostly treated separately from P-lability and A-lability.

P-labile verbs are often originally transitive verbs that are used intransitively from a certain point in history.[3] Previous research indicates that the number of verbs displaying P-lability has significantly increased in Late Latin (i.e., after 200 AD) (Cennamo 2022; Cennamo et al. 2015; Feltenius 1977: 73–138; Gianollo 2014). Gianollo (2014), Cennamo et al. (2015) and Cennamo (2022) especially have stated that P-lability was used as an *anti-causative* strategy for atelic predicates and extended to telic predicates after 200 AD. Their ideas are, however, not tested through corpus-based research and it remains uncertain how productive P-lability was in the different periods of Latin.

Furthermore, Creissels (2014) and Dixon (1994: 54) observed that *morphosyntactic alignment*, i.e., the manner in which arguments are arranged in terms of case marking, agreement and/or word order, plays a significant role in the likelihood of the occurrence of P- or A-lability as a *diathetic strategy*, which is commonly defined as the mapping of semantic roles onto grammatical roles (Kulikov 2011: 369–370; Zúñiga and Kittilä 2019: 4). Creissels (2014) and Dixon (1994: 54) state that lability (i.e., unmarked diathesis) is preferred to voice (i.e., marked diathesis) when the argument of the intransitive construction is coded in the same manner as its similar argument in the transitive counterpart, such as the preverbal position of *Mary* in the abovementioned examples (2a) and (2b). Consequently, A-lability is more likely to occur in accusative languages and P-lability in ergative languages. P-lability is, however, certainly not lacking in accusative languages such as English, French, Italian, Greek, and Latin.[4] For Late Latin, the emergence of the *extended accusative*, i.e., the development of a *semantic-based alignment*, is relevant in that respect. This development caused a split in case marking between (i) *unergative* subjects (Agent-like intransitive subjects, S_A) that share a case marker with transitive *Agents* or *Effectors* (A) and (ii) *unaccusative* subjects (Patient-like intransitive subjects, S_P) that share a case marker with transitive *Patients* (P).[5] Consequently, that implied a change in the encoding of the intransitive alternant of P-labile verbs, as briefly discussed by Cennamo (2009, 2022), Cennamo et al. (2015) and Gianollo (2014). However, a comprehensive discussion on the exact interaction between the increased occurrence of P-lability and the roughly simultaneous development of morphosyntactic alignment remains lacking. The working hypothesis of this paper is that the development of a semantic-based alignment in Late Latin creates a syntactically more favorable environment for P-lability, which resulted in its increase in Late Latin.

3 Feltenius's (1977) term *intransitivization* implies that those verbs are transitive by nature. That is true for their original use, but that cannot be said from the moment those verbs display lability. Flobert's (1975) *intrinsic passive* does not take into account the distinction between anticausative and passive (cf. infra).

4 See McMillion (2006) for English, Heidinger (2010, 2014) for French, Cennamo (2021) for French and Italian, Lavidas (2010) for Greek, Cennamo et al. (2015), Feltenius (1977) and Gianollo (2014) for Latin.

5 See Cennamo (2009), Korkiakangas (2016), Ledgeway (2012: 312–352), Plank (1985) and Rovai (2005, 2012: 103–114, 2014), among others.

This paper focuses on P-lability in change-of-state verbs in Latin medical texts. Its goal is twofold. First, we discuss the productivity of P-lability as a diathetic strategy in Latin medical texts ranging from the first century AD to the seventh century AD. Secondly, we discuss the interaction between the rise of P-lability in Late Latin and the change in morphosyntactic alignment. Section 2 provides a theoretical overview of the typology of lability and sketches the investigated corpus of medical and veterinary texts. Section 3 discusses the diachronic development of P-lability as a diathetic strategy and its interrelation with other anticausative strategies. Section 4 delves deeper into the interrelation between the emergence of P-lability and the development of semantic alignment in Late Latin. Section 5 sums up the main conclusions of this paper.

2 Theoretical and methodological remarks

2.1 Typological framework

We consider the emergence of lability in light of the framework designed by Creissels (2014). Aside from the already mentioned distinction between A-lability and P-lability, he draws a formal distinction between *weak lability* and *strong lability* (concerning morphosyntactic alignment) and a semantic distinction between *argument structure modifying lability* and *argument structure preserving lability* (concerning diathesis). His typological framework allows us to create a more in-depth typological description of P-lability in Latin and Late Latin and to describe its diachronic changes.

2.1.1 Lability and diathesis

Creissels (2014) states that argument structure preserving lability does not affect the presence of the semantic roles, whereas in argument structure modifying lability, one of the arguments is completely absent from the semantic structure in the intransitive alternant. His description corresponds to Kulikov's (2011) and Zúñiga's and Kittilä's (2019) distinction of diathetic categories *sensu stricto* (only affecting the syntactic valency) and *sensu latiore* (affecting both the semantic and syntactic valency). Regarding P-lability, the semantic distinction between *passive* and *anticausative* is relevant, as well as the notion of *causative*. Our definition of these diathetic strategies is based on Kulikov (2011) and Zúñiga and Kittilä (2019). The anticausative and passive voice can morphologically coincide in many languages (see especially Bahrt 2021: 81–82, 124–127, 148–161), as is the case with Classical Latin (cf. infra), but they can be distinguished based on the complete removal of the Agent from the semantic valency of the event (anticausative) or backgrounding of the Agent without affecting the semantic valency (passive) (see Figure 1).

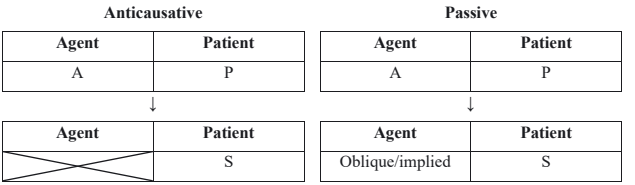

Figure 1: Semantic distinction between anticausative and passive.

In the passive voice, the Agent can be implied or overtly expressed through an oblique argument (in Latin mostly by an *ab*-PP for animate nouns or by a simple ablative for inanimate nouns), while this is not possible when the verb occurs in the anticausative voice. Kulikov (1998) criticized this approach by remarking that the distinction between anticausative and passive is mostly irrelevant to the speaker in discourse. Zúñiga and Kittilä (2019: 42–43) remark that the central motivation for the anticausative is the lack of volitionality by means of expressing the situation as occurring spontaneously.

In a cross-linguistic perspective, change-of-state verbs (as well as motion verbs) are most likely to have a *causative-anticausative alternation* with an intransitive alternant expressing a spontaneous occurrence of the event and a transitive alternant with a thematically underspecified causer, which does not need to be an agent and which bears the semantic role of *Effector*, which is not agentive *per se* and can be animate or inanimate, following the definition of Van Valin and Wilkins (1996). As such those verbs have a Patient-oriented meaning.[6] Concerning *Aktionsart*, as introduced by Vendler (1957), verbs undergoing P-lability are mostly *achievements*, *accomplishments*, *degree achievements* or *activities*.[7]

Besides the anticausative valency-decreasing strategy, languages typically also have a causative valency-increasing strategy (see Figure 2). In English, some verbs

6 Haspelmath (1993: 92–96) argues that the most important semantic condition to show an inchoative/causative alternation is the fact that change-of-state and motion verbs have no Agent-oriented meaning component. As a result, the event expressed by the verb could occur spontaneously, which is expressed by the intransitive alternant. The spontaneity of the event has been a general criterion for anticausatives (see, for example, Cennamo 1998; Gianollo 2014; Haspelmath 1987, 1993; Schäfer 2009: 155–209).

7 As discussed by Cennamo (2022), Cennamo et al. (2015), and Gianollo (2014), the semantic constraints on P-lability in Classical Latin can be described in terms of *Aktionsart*. Concerning situation types and *Aktionsart*, Smith (1997: 17–38), who based her taxonomy of *Aktionsart* on Vendler (1957), distinguishes *activities* (atelic durative events), *accomplishments* (telic durative events), *achievements* (telic instantaneous events), *semelfactives* (single-stage atelic events), and *states* (static durative events). We will also make use of the notion *degree achievements* (not necessarily telic durative events displaying features of both accomplishments and activities), as described by Hay et al. (1999).

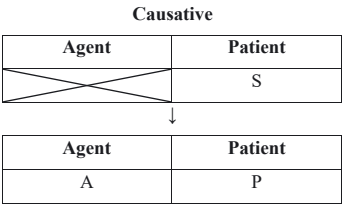

Figure 2: Causative.

allow P-lability as a causative strategy, such as the manner of motion verb *to jump* in example (4) (Levin and Rappaport Hovav 1995: 110–119). The causative is, therefore, an operation in which an Agent has been added to the basic structure of the process and, consequently, modifies the inventory of semantic roles of the verb. Although the S of (4a) is agentive, it appears as the P of (4b) without formal marking and, consequently, 'to jump' is a P-labile verb.

(4) a. *The horse jumped.*
b. *The rider jumped the horse.*

2.1.2 Lability and alignment

Creissels' (2014) distinction between weak and strong lability is based on the syntactic encoding of the arguments and, as a result, includes morphosyntactic alignment in the typological description of lability. Dixon (1994: 54) states that accusative languages favor A-lability to the same extent that ergative languages favor P-lability since A and S are treated in accusative languages in the same way as P and S in ergative languages. In other words, a language can favor A- or P-lability if the presence or absence of verbal agreement and/or the case marking of the preserved argument does not need to alternate between transitive and intransitive use of the verb (see Figure 3). According to Creissels (2014), both A-lability in accusative languages and P-lability in ergative languages represent a weak form of lability, since there is no change in case marking and verbal agreement in the transitive and intransitive alternants. We can add that the syntactic distinction between weak and strong lability can be subdivided into (i) agreement, (ii) case marking and (iii) word order, since morphosyntactic alignment can manifest in those three domains (Bickel and Nichols 2009; Donohue 2008).

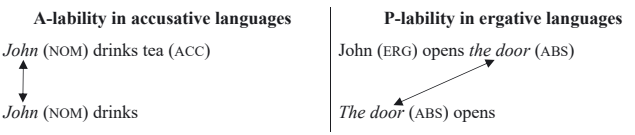

Figure 3: Lability and morphosyntactic alignment (cursive = identical marking).

2.2 Corpus

This research uses a corpus of medical texts written in Latin. This genre has proven to be relevant to the study of labile verbs in Latin (Cennamo et al. 2015; Feltenius 1977; Gianollo 2014), but a quantitative analysis with the latest typological findings regarding lability is still lacking. The composition of the corpus is based on the medical texts listed by Langslow (2000). A *condicio sine qua non*, however, was the availability of the texts in Brepols' *Library of Latin Texts*, an electronic corpus of Latin texts that contains texts from all periods of history and allows lemma search in the corpus. Medical texts are often closer to the spoken language because of their linguistic clarity and non-ambiguity, their 'simple style' (*genus subtile*), and because their authors are often less educated in rhetoric (Fögen 2011: 449–451; Herman 1997: 22–23; Langslow 2000). In that sense, they are often more sensitive to features from the spoken language, such as the use of the unmarked intransitive as an anticausative strategy and the extended use of the accusative for the subjects of unaccusative verbs. An overview of all considered texts for this research can be found in Table 1.

Table 1: Corpus of Latin medical texts.

Text	Century (according to metadata)	Token frequency
Celsus	1	104,017
Pliny the Elder: *Naturalis Historia*	1	403,202
Scribonius Largus	1	26,367
Gargilius Martialis: *Medicina ex oleribus et pomis*	3	8,533
Gargilius Martialis: *Curae boum*	3	889
Gargilius Martialis: *fragmenta*	3	703
Apuleius: *Herbarium*	4	18,725
Medicina Plinii	4	13,753
Mulomedicina Chironis	4	65,581
Serenus	4	7,527
Theodorus Priscianus: *Euporiston*	5	30,504
Theodorus Priscianus: *Physica* (*Fragmentum*)	5	918
Pseudo-Theodorus Priscianus: *De vesicae vitiis*	5	1,052
Cassius Felix	5	29,430
Marcellus Empiricus	5	101,665
Palladius: *De veterinaria medicina liber*	5	7,960
Vegetius	5	48,409
Anthimus	6	4,479
Antidotaria duo codicis Bruxellensis I	6	3,793
Antidotaria duo codicis Bruxellensis II	6	3,672
De Taxone Liber	7	350

3 P-Lability and voice in Latin

As Feltenius's (1977) use of the term intransitivization implies, P-lability in Latin has been described in terms of the fact that originally transitive verbs are used intransitively in the active voice from a certain point in history. In many cases, P-lability is indeed a strategy to express the anticausative use of the verb, but it does not reflect all possible instances of P-lability in Latin. Some originally intransitive verbs seem to display P-lability as a causative strategy and can be considered *transitivizations*. Besides the obvious occurrence of argument-structure modifying P-lability (for the causative-anticausative alternation), Cennamo (2006) also claimed that passive lability was attested in Late Latin, but this claim will be refuted below.

3.1 Transitive subjects of change-of-state verbs

The semantic roles of A in Latin P-labile verbs have been largely neglected in research. There are, however, clear correlations between the semantics of A and the possibility of the occurrence of the causative-anticausative alternation and this issue is thus relevant for the discussion on P-lability as a diathetic strategy. In verbs displaying the causative-anticausative alternation, A bears the semantic role of *Effector* (Van Valin and Wilkins 1996), in which the A is underspecified and does not need to be a prototypical Agent, so that the verb is Patient-oriented and able to anticausativise, while Agent-oriented verbs, in which the A is obligatorily an Agent, cannot anticausativise (Haspelmath 1993; Koontz-Garboden 2009; Levin and Rappaport Hovav 1995: 102–106; Schäfer 2008; Van Valin and Wilkins 1996; Zúñiga and Kittilä 2019: 51–52). The investigated corpus reveals that the A of verbs allowing the causative-anticausative alternation (and displaying P-lability) is underspecified.

Following the framework of Koontz-Garboden (2009) and Van Valin and Wilkins (1996), we can observe that the cause expressed in A of change-of-state verbs that can anticausativise could be an Animate Effector (which is not necessarily an Agent) (5a), an instrument (5b), a natural force (5c), an event (5d), or a stative eventuality (5e).[8] All those categories were attested in the investigated data, but there is a considerable preference for Animate Effectors and Instruments as A, while the other categories are limited to a

8 Animate Effectors are not necessarily volitional and thus not Agents *sensu stricto*, since one can cause a change against one's will. In (5a), for example, it is unclear whether the draft animal is opening its eyes voluntarily or not. Koontz-Garboden (2009) does not seem to make a distinction between volitional and non-volitional Animate Effectors (the former fits the definition of Agent). We would like to thank one of the reviewers for this comment.

Table 2: Semantics of A in *aperio, occludo*, and *claudo*.

Semantics of A	Number of instances	Percentage
Animate effector	93	57.41 %
Instrument	59	36.42 %
Natural force	6	3.70 %
Event	4	2.47 %
Stative eventuality	0	0.00 %

few instances (see Table 2 for the distribution of *aperio* 'open', *occludo* 'close up' and *claudo* 'close' and Appendix 1 for the passages).[9] The possibility to eliminate volitionality from the semantics of the transitive subject implies that the verb can anticausativise and that P-lability most likely expresses the causative-anticausative alternation.

(5) a. ***iumentum*** […] *ut* *oculos* *aperiat*
draft.animal:NOM.N.SG so.that eye:ACC.M.PL open:SBJV.PRS.3SG.ACT
'The draft animal […] so that it opens its eyes.'
(*Mulomedicina Chironis*, V, 447, 4th century AD)

b. ***Hoc*** ***collirium*** *fistulas*
DEM.NOM.N.SG eye.salve:NOM.N.SG fistula:ACC.F.PL
aperit
open:IND.PRS.3SG.ACT
'This eye-salve opens the fistulas.'
(*Mulomedicina Chironis*, IX, 934, 4th century AD)

c. *solum* *hoc* *pomum* ***natura***
only:ACC.N.SG DEM.ACC.N.SG fruit:ACC.N.SG nature:NOM.F.SG
compactili *operimento* *clausit*
compact:ABL.N.SG covering:ABL.N.SG close:IND.PRF.3SG.ACT
'This is the only fruit that nature has enclosed in a compact covering.'
(Pliny the Elder, *Naturalis Historia*, XV, 88, 1st century AD)

d. ***ver*** *ergo* *aperit*
spring:NOM.N.SG thus open:IND.PRS.3SG.ACT
navigantibus *maria*
sailing:DAT.M.PL sea:ACC.N.PL
'Thus, spring opens the seas for sailors.'
(Pliny the Elder, *Naturalis historia*, II, 67, 1st century AD)

9 We could not find an example of a stative eventuality used as A in our sample of transitive uses of *aperio* and *claudo*, but it was attested with the verb *rumpo* 'break'. Due to space limitations, Appendices 1 and 2 can only be consulted online, at the following address: https://doi.org/10.1515/flin-2024-2005.

e. *ut* ***anguli*** ***eius*** […] *cartilaginem*
so.that angle:NOM.M.PL DEM.GEN.SG cartilage:ACC.F.SG
rumpant
break:SBJV.PRS.3PL.ACT
'So that their angles […] break the cartilage.'
(*Mulomedicina Chironis*, X, 969, 4th century AD)

3.2 P-Lability and causativization

Hoffmann (2016) and Lehmann (2016) discuss that the main causative strategies in Latin are (i) suppletion (e.g. anticausative *delecto* 'delight' and causative *gaudeo* 'rejoice'), (ii) suffixation via *-facio* (derived from verbs, e.g. *cande-facio* 'make dazzlingly white', *candeo* 'shine' + *facio*) or *-fico* (mainly derived from adjectives and nouns, e.g. *ampli-ficare* 'make wide', *amplus* 'wide' + *fico*), and (iii) analytical constructions (e.g. *facio* 'make' + infinitive/*accusativus cum infinitivo*, + *ut*-clause or *iubeo* 'order' + infinitive).[10] P-lability as a causative strategy has been scarcely attested. In the Romance languages, there are some P-labile verbs which were originally intransitive in Latin.[11] Hoffmann (2016) gives examples of *suesco* 'become accustomed' (and derivations, such as *consuesco* 'become accustomed') and *duro* 'harden', which is, in fact, a labile verb that is neither originally transitive nor intransitive (Feltenius 1977: 10). The causative use of one of those originally intransitive verbs, *consuesco* 'become accustomed/accustom' (6a), has only been attested twice in the investigated dataset, once in the *Mulomedicina Chironis* (6b) and once in Pliny the Elder's *Naturalis Historia* (6c).

(6) a. *iumentum* […] *qua* *consuerit*
draft.animal:NOM.N.SG REL.ABL.F.SG accustom:SBJV.PRF.3SG.ACT
urinam *facere*
urine:ACC.F.SG do:INF.PRS.ACT
'The draft animal […] in what way he is accustomed to urinate.'
(*Mulomedicina Chironis*, V, 480, 4th century AD)

10 See Hoffmann (2016) and Lehmann (2016) for an extensive discussion on causative constructions in Latin.

11 An example of this is *cresco* 'grow', which is exclusively intransitive in Latin according to TLL (4, 0, 1176, 3–1184, 60), but labile in Italian (Siller-Runggaldier 2011: 194).

b. *si prima aetate iumentum*
if first:ABL.F.SG age:ABL.F.SG draft.animal:ACC.N.SG
consueveris omnia contraria
accustom:SBJV.PRF.2SG.ACT all:ACC.N.PL opposite:ACC.N.PL
facere
do:INF.PRS.ACT
'[…] if you accustomed the draft animal from its youth to do all the opposite things.'
(*Mulomedicina Chironis*, VII, 737, 4th century AD)

c. *semina* […] *ac falcem pati*
seed:ACC.N.PL and sickle:ACC.F.SG endure:INF.PRS.MPASS
consuescere.
accustom:INF.PRS.ACT
'The seeds […] to accustom them to endure the sickle.'
(Pliny the Elder, *Naturalis Historia*, XVII, 70, 1st century AD)

The stative verb *doleo* 'suffer' can display two patterns, one transitive with A as experiencer and P as stimulus (7a) and one intransitive with S as stimulus and (optionally) a dative argument as experiencer (7b).[12] Originally, the transitive pattern was only preserved for the expression of mental pain, but in Late Latin, the transitive pattern was frequently attested to express physical pain alongside the intransitive pattern.

(7) a. *dentem cum dolebis*
tooth:ACC.M.SG when hurt:FUT.IND.2SG.ACT
'[…] when you will have toothache.'
(Marcellus Empiricus, *De Medicamentis*, XII, 22, 5th century AD)

b. *Si tibi partis sinistrae dens*
if you:DAT.M.SG part:GEN.F.SG left:GEN.F.SG tooth:NOM.M.SG
dolebit
hurt:FUT.IND.3SG.ACT
'If your tooth on the left side is aching […]'
(Marcellus Empiricus, *De medicamentis*, XII, 48, 5th century AD)

The scarce attestation of P-lability as a causative strategy for originally intransitive verbs can be explained by the fact that (Classical) Latin is mainly a detransitivizing

12 For a thorough discussion on the syntactic constructions of the verb *doleo* 'suffer', see Fedriani (2014: 183–184).

language according to the typology of Nichols et al. (2004) (Inglese 2021). The few examples of transitivization of originally intransitive predicates suggest, however, that Latin developed into a language of the indeterminate type, in which the main valency orientation for the causative-anticausative alternation is lability. This is, however, more clearly visible in the development of P-lability in originally transitive verbs (intransitivizations), as we discuss in Section 3.3.

3.3 P-lability and anticausativization

Three anticausative strategies have been attested in Latin, viz., (i) the mediopassive, (ii) the reflexive strategy and (iii) the labile strategy, i.e., the active intransitive (Cennamo 2022; Cennamo et al. 2015; Gianollo 2014). While the mediopassive occurs in all periods with all verbs as an anticausative strategy, there are semantic constraints on the use of the reflexive and labile strategies in Classical Latin.

3.3.1 The mediopassive strategy

Every semantic class of transitive P-labile change-of-state verbs attested in Latin can occur with the mediopassive strategy as an anticausative or as a (true) passive. As discussed above, the passive and anticausative voice is syncretic in Classical Latin. Example (8a) illustrates an anticausative use of the mediopassive in the transitive verb *rumpo* 'break', which is implied by the adverb *sponte* ('spontaneously', 'of its own accord'). Example (8b), however, illustrates the passive use of *rumpo*, since the instrumental ablative *hircino* […] *sanguine* 'blood of the goat' expresses the Cause of the event. In most cases, however, the semantic distinction between passive and anticausative use of the mediopassive is not clear from the context. Furthermore, the possibility to express the passive, the anticausative, the autocausative and the impersonal passive creates a heavy functional load for the mediopassive.[13]

(8) a. *Cortex* […] *quibusdam* *rumpitur*
bark:NOM.M.SG some:DAT.F.PL break:IND.PRS.3SG.MPASS
sponte
spontaneously
'The bark […] for some [*sc.* trees], it breaks spontaneously.'
(Pliny the Elder, *Naturalis Historia*, XVI, 126, 1st century AD)

13 See Pinkster (2015: 230–305) for a full discussion on all the possible diathetic functions of the mediopassive.

b. *siquidem* *illa* *invicta* *vis,*
accordingly DEM.NOM.F.SG invincible:NOM.F.SG force:NOM.F.SG
duarum *violentissimarum* *naturae*
two:GEN.F.PL most.violent:GEN.F.PL nature:GEN.F.SG
rerum *ferri* *ignium-que*
thing:GEN.F.PL iron:GEN.N.SG fire:GEN.M.PL-and
contemptrix, *hircino* *rumpitur*
defier:NOM.F.SG of.a.goat:ABL.M.SG break:IND.PRS.3SG.MPASS
sanguine
blood:ABL.M.SG
'Accordingly, that invincible force that defies nature's two most violent substances, iron and fire, can be broken by the blood of a goat.'
(Pliny the Elder, *Naturalis Historia*, LIX, 59, 1st century AD)

The restructuring of voice, i.e., the specialization of the mediopassive in Late Latin, and the development of the other anticausative strategies must be seen in light of the disambiguation of the mediopassive through functional specialization as a passive strategy. Cennamo (2022), Cennamo et al. (2015) and Gianollo (2014) agree that the use of the mediopassive for the anticausative was decreasing in Late Latin. One should note that the clear anticausative use of the mediopassive (with the adverbial *per se* 'by itself' or *(sua) sponte* 'spontaneously') remained in Late Latin, as in example (9) with the P-labile verb *extinguere* 'extinguish' in Marcellus Empiricus. As a result, the anticausative use of the mediopassive did not completely disappear after 300 AD, but, as we will discuss in Sections 3.3.3 and 3.3.4, the labile strategy became more productive as an anticausative strategy in detriment of the mediopassive. Furthermore, it should be noted that the mediopassive had been the standardized anticausative strategy in Classical Latin.

(9) *lucerna,* *quae* *sponte*
lamp:ABL.F.SG REL.NOM.F.SG spontaneously
extinguetur
extinguish:IND.FUT.3SG.MPASS
'[…] the lamp that spontaneously will turn off.'
(Marcellus Empiricus, *De Medicamentis*, XXXIII, 68, 5th century AD)

3.3.2 The reflexive strategy

According to Cennamo (2022) and Cennamo et al. (2015), the reflexive strategy was almost exclusively used in Early and Classical Latin with achievements and accomplishments, albeit rarely. They claim, however, that it was first attested with

degree achievements from the first century onwards. For the first period in our dataset (i.e., before the third century AD), the reflexive strategy is mostly attested for inherently telic verbs, as shown in (10a) and with degree achievements (10b). Out of the 19 examples in this period, four are achievements, seven are accomplishments, three are degree achievements and five are *indefinite change verbs* i.e., accomplishments with the general meaning of 'to change', like *muto* 'change', *vario* 'diversify', *verto* 'turn' and *converto* 'turn (into)'.

(10) a. *in* *vermiculum* *id* *se*
in little.worm:ACC.M.SG DEM.NOM.N.SG REFL.ACC.SG
mutans
change:PTCP.PRS.ACT.NOM.N.SG
'[…] it [*sc.* berry] changing [itself] into a little worm […]'
(Pliny the Elder, *Naturalis Historia*, XXIV, 8, 1st century AD)

b. *fructus* […] *nec* *ampliat* *se*
fruit:NOM.M.SG nor widen:IND.PRS.3SG.ACT REFL.ACC.SG
'Fruit […] nor does it widen [itself].'
(Pliny the Elder, *Naturalis Historia*, XVII, 178, 1st century AD)

Not much has changed in Late Latin regarding the use and productivity of the reflexive strategy. Its use remains, compared to the labile and mediopassive strategies, limited to a relatively small number of attestations (see also Section 3.3.4). Of the 23 attestations, only one example of the verb *exsicco* 'dry up' in (11a) can be considered a degree achievement and the rest are all inherently telic (3 achievements, 8 accomplishments and 11 indefinite change verbs), as shown in (11b). It must be noted that example (11a) must be interpreted as a telic use of the verb. Our results indicate limited productivity of the reflexive strategy and a clear preference for telic predicates in all the considered periods.

(11) a. *donec* *omnis* *se* *humor*
until all:NOM.M.SG REFL.ACC.SG liquid:NOM.M.SG
exiccet.
dry.up:SBJV.PRS.3SG.ACT
'[…] up until the liquid dries [itself] up.'
(*Mulomedicina Chironis*, VII, 687, 4th century AD)

b. *vitium* […] *cum* *etiam* *ruperit* *se*
defect.NOM.N.SG when also break:IND.FUT.PRF.3SG.ACT REFL.ACC.SG
'The defect […] when it also will have broken [itself].'
(*Mulomedicina Chironis*, IV, 384, 4th century AD)

3.3.3 The labile strategy

Last, but certainly not least, the unmarked anticausative or labile strategy has been used in Classical Latin mainly with degree achievements and indefinite change verbs, but in Late Latin, this use has spread to achievements and accomplishments in general (Cennamo 2022; Cennamo et al. 2015; Gianollo 2014). According to Cennamo (2022) and Cennamo et al. (2015), the labile strategy tends to be used in (Pre-)Classical Latin for verbs not encoding a final state. An important exception is the above-mentioned labile use of *aperio* 'open' in example (3). That constraint clearly disappears in Late Latin, which is shown by the multiple labile uses of *rumpo* 'break', an achievement encoding a final state, in the *Mulomedicina Chironis*.[14]

(12) *quae* *collectiones* *per* *se*
which:NOM.F.PL swelling:NOM.F.PL by REFL.ACC.PL
rumpunt
break:IND.PRS.3SG.ACT
'Those swellings break by themselves.'
(*Mulomedicina Chironis*, III, 179, 4th century AD)

Degree achievements derived from adjectives and expressing 'to make something x' became very productive in Late Latin. For example, the deadjectival verb *solido* 'consolidate' (<*solidus* 'solid') was first attested in its unmarked anticausative use after 200 AD, as is illustrated in example (13). Except for a few verbs, such as *grandio* 'enlarge', *lenio* 'soften' and *gemino* 'double', the labile strategy for anticausatives of deadjectival degree achievements is almost exclusively attested in Late Latin (Gianollo 2014).

(13) *cum* *cicatrices* *vulnerum*
when incision:NOM./ACC.F.PL wound:GEN.N.PL
solidaverint
consolidate:IND.FUTPF.3PL.ACT
'[…] when the incisions of the wound consolidate.'
(*Mulomedicina Chironis*, VII, 661, 4th century AD)

The unmarked anticausative of indefinite change verbs is attested from Classical Latin onwards and thus they behave differently from other accomplishments (Cennamo et al. 2015). The labile strategy for this verbal class in the first century AD is illustrated in (14a) and remains productive in Late Latin, as is shown in (14b).[15]

14 Six examples of the labile strategy for the anticausative were found in the *Mulomedicina Chironis*. Since the mediopassive of *rumpo* has been used seven times, we can conclude that the labile strategy is very productive for this verb.

15 See Gianollo (2014). There are, however, a couple of examples of *demuto* 'change' in Early Latin.

(14) a. *nisi si tractus ratio*
except if land:GEN.M.SG kind:NOM.F.SG
mutabit
change:IND.FUT.3SG.ACT
'[…] except if the nature of the land will change.'
(Pliny the Elder, *Naturalis Historia*, XVII, 170, 1st century AD)

b. *tumor* […] *in suppurationem convertit*
swelling:NOM.M.SG in abscess:ACC.F.SG change:IND.PRS.3SG.ACT
'The tumor […] turns into an abscess.'
(Palladius, *De Veterinaria Medicina Liber*, 18,8, 5th century AD)

3.3.4 Distribution of the anticausative alternation

Table 3 (see also Appendix 2) represents the distribution between the three anticausative strategies before and after the third century. The investigated data reveal that the labile strategy heavily increased as an anticausative strategy after the third century in comparison to the mediopassive and the reflexive strategies. Furthermore, the decrease of the mediopassive combined with the increase of the labile strategy implies its specialization as a passive strategy. For the sake of our discussion on the interaction between lability and alignment in Section 4, we have divided the texts based on their date, viz., before and after 200 AD, after which the extended accusative has been attested (cf. infra).

Table 3: Anticausative strategies before and after the third century AD.

Anticausative strategy		Before third century	After third century	Total
Mediopassive	*N*	699	606	1,305
	Percentage	94.20 %	78.09 %	85.97 %
	Residual	2.42	-2.37	
Reflexive	*N*	19	23	42
	Percentage	2.56 %	2.96 %	2.77 %
	Residual	−0.34	0.33	
Labile	*N*	24	147	171
	Percentage	3.23 %	18.94 %	11.26 %
	Residual	−6.51	6.37	
Total		742	776	1,518
Chi-square			$\chi^2 = 94.77$; $df = 2$; $p < 0.001$	

Table 4 (see also Appendix 2) represents the use of the labile strategy relative to *Aktionsart*. Indefinite change verbs are treated separately from other accomplishments since they behave differently in terms of anticausativization (cf. supra). P-lability in telic predicates, i.e., achievements and accomplishments, scarcely occurs before 200, but after 200, they became very productive. Indefinite change verbs such as *muto* 'change' were already productive before 200 AD and remained attested after the third century AD. The negative residual of indefinite change verbs after 200 AD signifies that the labile strategy has lost its semantic constraints rather than that the labile strategy was less productive for this verbal class after 200 AD. According to Cennamo (1998) and Gianollo (2014), the degree of spontaneity is the criterion *par excellence* for having an unmarked intransitive as the anticausative strategy in (Classical) Latin, but in Late Latin, the labile strategy extends to predicates expressing less spontaneous events. Therefore, they follow Haspelmath's (1993) principle of iconicity in the tendency of the labile strategy expressing the anticausative of processes with a high degree of spontaneity. In short, the investigated samples of anticausative uses reveal that the unmarked intransitive became more productive after 200 AD and, as a result, the unmarked intransitive became a generalized anticausative strategy with no aspectual constraints.

Table 4: P-lability and verbal semantics.

Verbal class		Before the third century	After the third century	Total
Achievements (e.g., *rumpo* 'break')	Number	0	14	14
	Percentage	0 %	9.52 %	8.19 %
	Residual	−1.40	0.57	
Accomplishments (e.g., *claudo* 'close')	Number	1	48	49
	Percentage	4.17 %	32.65 %	28.65 %
	Residual	−2.24	0.91	
Degree achievements (e.g., *spissare* 'thicken')	Number	12	81	93
	Percentage	50 %	55.10 %	54.39 %
	Residual	−0.29	0.12	
Indefinite change verbs (e.g., *mutare* 'change')	Number	11	4	15
	Percentage	45.83 %	2.72 %	8.77 %
	Residual	6.13	-2.48	
Total		24	147	171
Chi-square		$\chi^2 = 51.94$; $df = 3$; $p < 0.001$		

3.4 Passive lability in Latin?

The restructuring of voice did not result in a loss of a passive voice marker in Latin and thus we should not expect passive lability in Latin. Employing the test of agentive adjuncts, as in example (15), we can know that there is no passive lability in English because the intransitive P-labile alternant cannot express the presence of the Causer, in opposition to the passive voice in (15c).

(15) a. *John opens the door.*
b. **The door opens by John.*
c. *The door is opened by John.*

Previous research hints at a passive use of the P-labile verb *vexo* 'vex' in example (16).[16] However, since the semantic distinction between passive and anticausative is very thin, speakers (and writers) do not always consider the presence or absence of Agents and thus both anticausative and passive constructions can be used interchangeably.[17] As discussed above, the presence of an *a(b)*-PP + ablative for human referents or a simple ablative for non-human referents as Cause/Agent adjunct is used to distinguish passive from anticausative. Furthermore, the *a(b)*-PP + ablative is normally not used as a Cause adjunct with inanimate referents.[18] Finally, *vexo* has also been attested in its anticausative use in example (16b). We do not agree with Cennamo et al. (2015) in their statement that *vexo* 'vex' has an Agent-oriented meaning component. First of all, the original meaning of *vexo* (i.e., 'shake') implies that the verb should express non-translational motion (movement without change in position) (cf. Gianollo 2014; Kemmer 1993: 16), of which many verbs can show P-lability in Late Latin (cf. Feltenius 1977; Gianollo 2014). Secondly, in its transferred sense ('injure', 'vex'), it is perfectly possible that the transitive meaning of the verb should have been 'to cause to be in pain', which can be backed by the fact that object deletion is not attested with the verb. Their assumption that an inanimate A of those verbs is highly unlikely, is also not true, as shown in example (16c), together with 13 other examples found in our data.[19] In short, an anticausative reading of the verb *vexo* is thus possible, but *vexaverit* in example (16a) has been used idiomatically and can have a passive reading without implying the normal use of the unmarked intransitive as a passive strategy.

16 See, for example, Cennamo (2006) and Gianollo (2014).

17 See Kulikov (1998) for a discussion on the limits of spontaneity as a criterion for the distinction between passive and anticausative. In his view, the absence or presence of an Agent is not always relevant in discourse and thus passive and anticausative strategies can be used interchangeably.

18 See, for example, Pinkster (2015: 245–249).

19 Our data revealed that the A of *vexo* is attested three times with an Animate Effector, eight times as an event and six times as an instrument (see Appendix 1).

(16) a. *si a rota vexaverit*
if from wheel:ABL.F.SG suffer:IND.FUTPF.3SG.ACT
'[…] if it [*sc*. the horse] will have suffered from the wheel.'
(Pelagonius, *Ars Veterinaria*, 233, 4th century AD)

b. *ea loca, quae vexaverint*
DEM.ACC.N.PL spot:ACC.N.PL REL.NOM./ACC.N.PL suffer:IND.FUTPF.3PL.ACT
'[…] those spots, which will have been hurting […]'
(*Mulomedicina Chironis*, VIII, 768, 4th century AD)

c. *purgatorium efficax, quod nec stomachum vexat*
purgative:NOM.N.SG powerful:NOM.N.SG REL.NOM.N.SG nor stomach:ACC.M.SG vex:IND.PRS.3SG.ACT
'[…] a powerful purgative, which does not vex the stomach […]'
(Marcellus Empiricus, *De Medicamentis*, XX, 137, 5th century AD)

Gianollo (2014) remarks on some other marginal instances of the unmarked anticausative with a possible passive interpretation.[20] As discussed above, it is perfectly possible to give a passive reading to a verb with an anticausative marking and vice versa and thus there is no good reason to assume that Latin showed signs of passive lability. In example (17), the deponent verb *morior* 'die', which normally expresses an anticausative process, can be interpreted as a passive construction with the Agent expressed by an *a(b)*-PP.[21] That corresponds to Lehmann's (2016: 935–938) discussion on the use of an *a(b)*-PP employed as a causative strategy in Latin. In some languages, such as some (early) Romance varieties, the verb for 'to die' and its causative counterpart for 'to kill' are the same or are morphologically marked according to causative/anticausative alternation, such as in Akhvakh, instead of suppletion as in the majority of languages, including Latin (Bentley 2006: 130–131; Creissels 2014; Inglese 2021).

(17) *Moriuntur non alter ab altero, sed uterque a patre*
die:IND.PRS.3PL.MPASS not other:NOM.M.SG from other:ABL.M.SG but both:NOM.M.SG from father:ABL.M.SG
'They did not die at each other's hand, but both at their father's hand.'
(Seneca the Elder, *Controversiarum*, V, 3, 1, 1st century AD)

20 The examples given by Gianollo (2014) of *ab-PP* + ablative are intransitive labile uses of the verbs *exuro* 'burn up' and *contraho* 'draw together' and originally intransitive verbs *aegroto* 'be ill' and *pereo* 'perish'. All those verbs have a normal anticausative meaning. We also refer to Lehmann (2016) for an extensive discussion on the use of a Causer adjunct as a causative strategy.

21 One of the reviewers points out that there is a possible influence of the Greek construction *apothnḗskō hupó* 'to die/be killed by'.

The semantic resemblance between the anticausative and the passive and the causative use of the *a(b)-PP* can lead to some passive readings of anticausative constructions, but this does certainly not mean that Latin developed a form of passive lability.

3.5 Interim summary: lability and voice in Latin

We have discussed the anticausative alternation in Latin and alluded to some causative developments of P-lability in Late Latin. The investigated data reveals that P-lability is a strategy to express the causative-anticausative alternation, in which a Causer can be removed or, in an extremely limited number of cases, added to the basic construction of the verb. We challenged the hypothesis that P-lability can be used as a passive strategy. From a typological perspective, we can state that P-lability in both Classical and Late Latin is exclusively argument structure modifying (to express the causative-anticausative alternation and not the passive voice). Labile patterns are very productive in Late Latin since the aspectual constraints on P-lability as a rising anticausative strategy disappeared. The ambiguity of the mediopassive strategy between passive and anticausative in Classical Latin was resolved by the increased use of the labile strategy for the anticausative in Late Latin. In what follows, we discuss the rise of P-lability in light of the change in morphosyntactic alignment in Late Latin.

4 The interface between lability and morphosyntactic alignment in Latin

4.1 Explanations for the increase of P-lability in Late Latin

The factors contributing to the increase of P-lability in Late Latin remain up for debate. According to Feltenius (1977: 22) and Hofmann and Szantyr (1965: 295–297), the labile strategy in Latin can be understood as the ellipsis of the reflexive pronoun. However, this explanation does not take into account (i) crosslinguistic evidence that P-lability is a proper diathetic strategy and not a reduction of a more marked strategy and (ii) the aspectual constraints determining the choice between the labile and reflexive strategy, as discussed by, among others, Cennamo (2022), Cennamo et al. (2015) and Gianollo (2014). The intransitive alternant of some P-labile verbs, such as *moveo* ‘move’, are believed to be absolute uses (*sc*. the omission of a direct object) by e.g. Kühner and Stegmann (1976: 94–95), but this theory is already discarded by

Feltenius (1977: 21–22) and later by Gianollo (2014) since it does not comply with the properties of P-lability and the allocation of semantic roles to the verbs. Gianollo (2014: 989–997) discusses four hypotheses for the rise of lability in Late Latin. The first hypothesis argues that the morphological decay of the mediopassive has led to the rise of P-lability in Latin, but Gianollo (2014) correctly remarks that the morphological demise of the mediopassive must be dated much later than the rise of lability in the third century, as discussed by Green (1991) and Herman (2002), among others. The second hypothesis claims that present participles displayed lability much earlier and that there might have been an analogical extension to finite verb forms, but Gianollo (2014) also remarks that there should have been other factors influencing that change. In the third hypothesis, she discusses that intransitivizations simultaneously but separately rose in Greek and that it is more plausible to look for a language-internal explanation. Gianollo (2014) herself backs the fourth hypothesis, which states that a general restructuring of the voice system and the functional (rather than morphological) reduction of the mediopassive led to the increase of P-lability. The functional load of the mediopassive can be used to explain why a reorganization of voice was needed, as we discussed in Section 3.3.1, but it does not explain why lability was chosen as the main strategy for the causative-anticausative alternation. Furthermore, Gianollo (2014) hints at the interrelation between the change in morphosyntactic alignment and the emergence of lability, but does not discuss it in more detail. None of the previous hypotheses fully explain the considerable increase of P-lability in Late Latin. Cennamo (2009) also discussed the restructuring of voice categories in light of the change in morphosyntactic alignment in Latin (the so-called extended accusative), but it is also worth exploring why the rise of P-lability gained so much ground in Late Latin from a typological perspective. The change in morphosyntactic alignment implies less distinct treatments between the Patient in the transitive and intransitive alternants of P-labile verbs, which can favor the increase of P-lability in Late Latin.

4.2 The development of alignment in Latin

Following the distinction between Head-Marking and Dependent-Marking constructions made by Nichols (1986), the Verb Phrase in (Classical) Latin is mainly Dependent-Marking (marking on the arguments through case), but it also shows signs of Head-Marking (marking on the predicate through agreement), especially in the encoding of the nominative (A and S) on the verb itself (also known as subject-verb agreement).[22] All arguments in Classical Latin are marked through case

22 See Cennamo (2001) and Ledgeway (2012: 284–311).

marking on the noun (and adjective), but only the functions A and S are marked on the verb through subject-verb agreement, as is typologically common according to Nichols (1986). Following this distinction, the transitive and intransitive arguments A, S and P can be coded on the head (agreement), on the dependent (case marking), and based on position (word order) (Bickel and Nichols 2009; Donohue 2008). We will not include word order in the treatment of alignment since word order in Latin is pragmatically rather than syntactically driven and thus displays neutral alignment.[23] The most important aspect of alignment is the principle of identical and distinct treatment of transitive and intransitive arguments in a language. Most scholars agree that the nominative-accusative orientations in Latin and the modern Romance languages are not a continuity, but a development from nominative-accusative in Classical Latin to semantic in Late Latin and hence a redevelopment to a nominative-accusative alignment in Romance.[24] In semantic-based systems, an Agent-like intransitive subject (of the so-called unergative verbs) shares a formal marker with the transitive subject and the Patient-like intransitive subject (of the so-called unaccusative verbs) shares a formal marking with the transitive object. Classical Latin had a clear nominative-accusative alignment, in which the Agent of transitive clauses (20a) and the single argument of intransitive clauses, both unaccusative (20b) and unergative clauses (20c) agree with the verb and are marked with a nominative, while the Patient (20a) is marked with the accusative and does not agree with the verb (see also Table 5).

Table 5: Accusative alignment in Classical Latin.

	A	**S_A**	**S_P**	**P**
Agreement	Yes	Yes	Yes	No
Case marking	Nominative	Nominative	Nominative	Accusative

(18) a. *partes* *tres,* *quarum* ***unam***
part:ACC.F.PL three which:GEN.F.PL one:ACC.F.SG
incolunt ***Belgae***
inhabit:IND.PRS.3PL.ACT Belga:NOM.M.PL
'[…] three parts, one of which the Belgae inhabit.'
(Caesar, *De Bello Gallico*, I, 1, 1st century BC)

23 For the pragmatically driven word order in Latin, we refer to Bauer (2009), Pinkster (1991, 2021: 948–1137) and Spevak (2010).

24 See Cennamo (2009), Korkiakangas (2016), La Fauci (1988, 1997), Ledgeway (2012), Rovai (2005, 2012: 103–114, 2014), Plank (1985), Zamboni (1998), among others.

b. ***Hi*** ***omnes*** *lingua,*
DEM.NOM.M.PL all:NOM.M.PL language:ABL.F.SG
institutis, *legibus* *inter* *se*
insitution:ABL.N.PL law:ABL.F.PL among REFL.ACC.PL
differunt
differ:IND.PRS.3PL.ACT
'They are all different from one another in language, institutions and laws.'
(Caesar, *De Bello Gallico*, I, 1, 1st century BC)

c. ***Belgae*** […] *spectant* *in* *septentrionem*
Belga:NOM.M.PL look.at:IND.PRS.3PL.ACT to north:ACC.M.SG
et *orientem* *solem*
and rising:ACC.M.SG sun:ACC.M.SG
'The Belgae […] look to the north and the east.'
(Caesar, *De Bello Gallico*, I, 1, 1st century BC)

From the third century on, the accusative is used for subjects of unaccusatives, which means that Latin developed a semantic-based case marking (see Table 6).[25] Most examples of the extended accusative are found in texts closer to popular speech, such as the texts investigated for this article. The development of semantic alignment in Latin has served as an explanation for some attestations of the use of the accusative for S_P, such as unaccusatives (19a), deponents (19b), passives (19c), existential constructions (19d), fientives (19e) and constructions with *sum* 'be' (19f). Most examples of the extended accusative are found in colloquial texts, i.e., texts with features from

Table 6: Semantic alignment in Late Latin.

	A	S_A	S_P	P
Agreement	Yes	Yes	Yes	No
Case marking	Nominative	Nominative	Accusative	Accusative

25 See, among others, Cennamo (2009), Ledgeway (2012: 328–333), Korkiakangas (2016) and Rovai (2012: 104–106, 2014). Moravcsik (1978) discussed some examples of the extended use of the accusative in German and (Old) English. For a typological discussion of semantic alignment, we refer to Dixon (1994: 70–110), Donohue (2008) and Moravcsik (1978). Of course, it would be more correct to speak of *agentive case* or instead of nominative and of *patientive case* instead of accusative when discussing the syntax of Late Latin. In the rest of this article, we discuss the functional use of the cases involved, so from now on, the terms accusative and nominative only refer to their formal realization and not to their function.

the spoken language. Early Romance is, in general terms, divided into a group that developed a neutral system for case marking and a group with accusative case marking (Ledgeway 2012: 328–333; Rovai 2005, 2012: 104–106). In terms of agreement, Latin and Romance preserved an accusative system (Rovai 2012: 104–106).

(19) a. *ut* *sanguinem* *exeat*
so.that blood:ACC.M.SG go.out:SBJV.PRS.3SG.ACT
copiosum
copious:ACC.M.SG
'[…] so that a large amount of blood goes out.'
(*Mulomedicina Chironis*, VII, 618, 4th century AD)

b. *nascitur* *ei* *genuorum*
be.born:IND.PRS.3SG.MPASS DEM.DAT.N.SG knee:GEN.N.PL
contractionem *aut* *claudicationem*
contraction:ACC.F.SG or limping:ACC.F.SG
'A contraction or limping of its knees arises.'
(*Mulomedicina Chironis*, V, 516, 4th century AD)

c. *qualiter* *omnes* *cibos* *comedantur*
how all:ACC.M.PL food:ACC.M.PL eat:SBJV.PRS.3PL.MPASS
'How all kinds of food should be eaten.'
(Anthimus, *De observatione ciborum*, *praefatio*, 6th century AD)

d. *habebat* *de* *civitate* *forsitan* *mille*
have:IND.PST.3SG.ACT from city:ABL.F.SG perhaps thousand
quingentos passus
five.hundred:ACC.M.PL step:ACC.M.PL
'Maybe it was 1500 steps from the city.'
(*Itinerarium Egeriae*, 23,2, 4th century AD)

e. *fit* *orationem*
become/be.done:IND.PRS.3SG prayer:ACC.F.SG
'A prayer takes place / is done.'
(*Itinerarium Egeriae*, 25,3, 4th century AD)

f. *totam* *curationem* *haec*
whole:ACC.F.SG treatment:ACC.F.SG DEM.NOM.F.SG
est
be:IND.PRS.3SG
'This is the whole treatment.'
(*Mulomedicina Chironis*, VI, 526, 4th century AD)

The Romance languages ultimately developed neutral alignment (or accusative alignment in Gallo-Romance and Raeto-Romance) for case marking and maintained accusative alignment for agreement (Bentley 2016; Cennamo 2009; Ledgeway 2012:

333–335; Rovai 2012: 107). Traces of the Late Latin semantic-based alignment in the Romance languages could be found in (i) the use of the perfective auxiliaries derived from *habeo* 'have' for transitive and unergative verbs and from *sum* 'be' for unaccusative and passive patterns, (ii) the non-finite agreement of the perfective past participle with P and S_P in number and gender in some Romance varieties, (iii) the consistent set of highly animate Romance nouns that are derived from the nominative rather than the generalized accusative, and (iv) a semantically driven A/S_A V P/S_P word order in some Romance languages.[26] Although it is scarcely (or even never) mentioned in research to alignment or lability, the development to a semantic-based alignment in Late Latin leads us to conclude that the intransitive alternants of P-labile verbs should also have an accusative subject. In what follows, we discuss why this should be the case, although it is scarcely and mostly ambiguously attested.

4.3 Semantic alignment and P-labile verbs

While the abovementioned developments lead us to assume that Late Latin developed semantic alignment, some previously cited examples of accusative S_P in studies of alignment patterns can be problematic. We outline some of the main problems of interpreting an accusative subject with intransitive alternants of P-labile verbs. The first problem is the fact that Latin literature is transmitted via a manuscript tradition and possible instances of the extended use of the accusative can be corrected to a nominative through scribal interventions. That seems to be the case in the often-quoted example (20) from the *Itinerarium Antonini Placentini*, in which *multos* 'many:ACC' only appears in the oldest manuscript (the *Sangallensis*) of the text and is corrected to *multi* 'many:NOM' in later manuscripts.[27] Although Cennamo (2009) and Ledgeway (2012: 328), among others, appropriately used this as an example of an extended accusative, Adams (2013: 240–241) proposed another possible explanation, viz. that the construction is transitive and the writer might have intended to write the active *sanant* 'heal:ACT' instead of mediopassive *sanantur* 'heal:MPASS' (given the presence of *medici* 'doctors' as possible Agent in the previous sentence).

26 For a comprehensive discussion on the Romance traces of semantic-based alignment in Late Latin, we refer to Bentley (2016), Cennamo (2001), La Fauci (1988, 1997), Ledgeway (2012: 312–352), Zamboni (1998).

27 The attestation with *multos* has been quoted by Cennamo (2009) and Ledgeway (2012: 328) as an example of an accusative used as the Subject of an anticausative. See also Galdi (2015) for a discussion of the extended use of the accusative in the *Itinerarium Antonini Placentini*.

(20) *multos (multi)* *languores*
many:ACC.M.PL(NOM.M.PL) weakness:ACC/NOM.M.PL
sanantur *in* *ipsis* *locis*
heal:IND.PRS.3PL.MPASS in same:ABL.M.PL place:ABL.M.PL
'Many weaknesses are healed in the same places.'
(*Itinerarium Antonini Placentini*, 165.16, 5th century AD)

A second issue is that we cannot always conclude whether a verb with P-lability is used transitively with a null subject or intransitively with an accusative S. Regarding P-labile verbs, the interpretation of an accusative used for S_P or P can be ambiguous due to the possible use of a null subject in Latin. Nonetheless, Adams (2013: 249–251) and Audollent (1904: 358) have claimed that example (21) is an attestation of an accusative used as S_P of the unaccusative verb *cado* 'fall' and the intransitive alternants of the P-labile verbs *frango* 'break' and *verto* 'turn' in curse tablets.

(21) *Salutare* *cadat* *uertat*
Salutaris(?):ACC.M.SG fall:PRS.SBJV.3SG.ACT turn:PRS.SBJV.3SG.ACT
frangat
break:PRS.SBJV.3SG.ACT
'May Salutaris (?) fall, turn, break.'
(*Defixionum Tabellae*, 275, 2nd / 3rd century AD)
(Audollent 1904: 382)

Nevertheless, the examples drawn from the dataset are always ambiguous. We elaborate on two possible examples of accusatives used as S_P. Example (22a) testifies that *oculum* 'eye' can be interpreted as an intransitive subject in the accusative or as the object of a transitive verb with a null subject and *oculum* as a direct object. If the latter should be true, the content of the null subject would be *ypochima* 'eye cataract', a less plausible Cause of the event. Furthermore, the corresponding passage of Vegetius (22b) reveals a possible anticausative interpretation since *aperiat* has been replaced by the intransitive *patentem* 'be open'.[28] The possible intransitive interpretation needs to be nuanced by the fact that *iumentum* 'draft animal', although a direct object, has been mentioned in the same sentence and could serve as the transitive subject of *aperiat*.

(22) a. *Permittito* *aperiat* *oculum*
permit:FUT.IMP.SG.ACT open:PRS.SBJV.3SG.ACT eye:ACC.M.SG
'Allow that the eye opens.' / 'Allow that it opens the eye.'
(*Mulomedicina Chironis*, II, 73, 4th century AD)

28 For the use of the *Mulomedicina Chironis* as the main source for Vegetius' *Digesta Artis Mulomedicinae*, we refer to Adams (1995: 7) and Adams (2013: 19–20).

b. *iumentum* […] *ita* *patentem*
draft.animal:ACC.N.SG so be.open:PTCP.PRS.ACT.ACC.M.SG
oculum facies
eye:ACC.M.SG do:FUT.IND.2SG.ACT
'The draft animal […] so you will make the eye open.'
(Vegetius, *Digesta Artis Mulomedicinae*, II, 17, 5th century AD)

The third example (23) contains a possible accusative S_P of the intransitive alternant of *sedo* 'allay' (i.e., *dentium dolorem* 'toothache') since the context has only the plural form *omnia trita* 'all triturated (ingredients)' as the subject. One should also note that this example should be the only example of the labile strategy used for the anti-causative of *sedo* in Marcellus Empiricus.[29] Furthermore, it is also possible that *quis* 'somebody' in the conditional clause is the subject of *sedabit*, but, because the word order would not be canonical in that case, it is more likely that *sedabit* has been used intransitively with *dolorem* as its subject.

(23) *Dentium* *dolorem* *sedabit,* *si*
tooth:GEN.M.PL pain:ACC.M.SG allay:FUT.IND.3SG.ACT if
quis *gramen* *masticet*
someone:NOM.M.SG grass:ACC.N.SG chew:FUT.IND.3SG.ACT
patienter *et* *in* *doloris* *locum*
patiently and in pain:GEN.M.SG spot:ACC.M.SG
conlocet.
put:FUT.IND.3SG.ACT
'Toothache will get better [it will allay toothache?] if someone will patiently chew grass and put it on the sore spot.'
(Marcellus Empiricus, *De Medicamentis*, XII, 20, 5th century AD)

Example (24) has been used as an example of the extended accusative by Cennamo (2009) and Rovai (2014), among others. The verb *doleo* 'suffer' can be used both transitively and intransitively when expressing physical pain and thus this example remains ambiguous. It is, however, also possible that there is a null subject referring to *iumentum* 'draft animal' and that the construction has been used transitively. That has been implied by the previous sentence, in which there is a clear null subject with the semantic content *iumentum* and thus this sentence might also follow the pattern of example (7) in Section 3.2.

29 In Late Latin, there seem to be only three cases of the unmarked intransitive of *sedo*, all attested in *Physica Plinii* (written in the fifth or sixth century AD, see Adams 2016: 491–492). For a discussion on the labile uses of *sedo*, we refer to Feltenius (1977: 123) and Önnerfors (1963: 53–55).

(24) *(Sic sanum fiet.)*
so healthy:ACC./NOM.N.SG become/is.made:FUT.IND.3SG
Si pulmonem dolebit
if lung:ACC.M.SG hurt:FUT.IND.3SG.ACT
'(That way he becomes healthy). If its (the?) lung hurts.'
(*Mulomedicina Chironis*, IV, 367–368, 5th century AD)

From a morphological and phonological perspective, the nominative and accusative cannot always be formally distinguished. That is the case for example (24), in which *vitium* 'disease' can be interpreted as both nominative and accusative. Nevertheless, *deglutinet* 'soften' is interpreted as an intransitive verb since the main clause contains a second singular person as the subject.[30]

(25) *defundes in altero vase,*
pour.out:FUT.IND.2SG.ACT in another:ABL.N.SG vase:ABL.N.SG
ne deglutinet vitium
in.order.that.not soften:PRS.SBJV.3SG.ACT disease:NOM./ACC.N.PL
eius.
DEM.GEN.M.SG
'You will pour it [*sc*. linseed] out in another vase, in order that his disease will not soften.'
(*Mulomedicina Chironis*, IX, 836, 4th century AD)

If we consider (22a) and (23) as examples of extended accusatives and compare those examples to the analyzed cases in total, we can see that unequivocal uses of the nominative as the subject of intransitive alternants of labile verbs are also limited to 27 examples (see Table 7). Mostly, the case of the subject is ambiguous, such as *vitium* 'disease' in example (25).[31] Furthermore, scribal interventions as discussed in example (20), linguistic knowledge of the authors themselves and the frequent use of

30 Both Feltenius (1977: 94) and the TLL (5, 1, 384, 18–19) consider example (24) as an intransitive use of the verb *deglutino*.

31 Due to the reorganization of gender in Latin (from a three-gender system to a two-gender system with the loss of the neuter in Romance), one can also interpret the use of the original nominative/accusative neuter form *vitium* as the accusative of the masculine form *vitius*, which is attested in its masculine form in the *Decretio* of Childebertus II. For the evolution of grammatical gender in Latin, we refer to Adams (2013: 383–452), and for its interaction with alignment, to Rovai (2014). However, one cannot simply conclude that the use of ending *-um* in (originally) neuter nouns for S_P has to be explained through the extended accusative or standardization.

Table 7: Case marking for S_P of labile verbs.

	Nominative	Accusative	Ambiguous
Number	27	3	38

pro-drop can explain the limited attestation of the extended accusative for intransitive alternants of labile verbs.

The increasing productivity of P-labile verbs, as discussed in Section 3.3.4, could be influenced by the fact that the original accusative has been used to mark the Patient-like argument in both transitive and intransitive alternants of P-labile verbs.

4.4 Latin lability and alignment in a typological perspective

The emergence of P-lability and the change to semantic alignment are two parallel developments in the inventory of the transitive and intransitive alternants. From Late Latin onwards, P and S of P-labile verbs share a case marking, viz., the extended accusative, but differ in verbal agreement, viz. P: –agreement and S: +agreement. As we have discussed in Section 1.2.3, morphosyntactic alignment can create a favorable environment for certain types of lability. In that respect, P-lability in Late Latin is a weaker form of lability, since the case marking of the preserved argument remains the same (see Table 8). Since word order is pragmatically rather than syntactically driven in Latin, we did not include it in our discussion. Although P-labile verbs always existed in Latin, their semantic constraints disappeared in Late Latin, which can also be the consequence of the development of a semantic alignment in Late Latin and resulted in more verbs showing P-lability and the general increase of productivity of P-lability from Late Latin on.

Table 8: Syntactic development of P-lability in Latin.

	P-lability in Classical Latin	P-lability in Late Latin
Verbal agreement	Strong lability	Strong lability
Case marking	Strong lability	**Weak lability**

5 Conclusions

The number of P-labile verbs as well as the frequency of their use heavily increased in Late Latin. That increase includes a decline in aspectual constraints as well as a higher proportion of P-lability used as an anticausative strategy. Besides there are examples of verbs displaying P-lability as a valency-increasing strategy. P-lability in Late Latin affects the inventory of semantic roles by rule since the alleged examples of P-lability as a passive strategy were discarded. From a typological perspective, P-lability is always argument structure modifying, viz., P-lability is only used as an anticausative and marginally as a causative strategy, and never as a passive strategy.

Some explanations for the considerable growth and increased productivity of P-lability as causative-anticausative alternation include the Greek influence, the influence of present participles or the morphological or functional decay of the mediopassive -R morphology. This paper, however, has considered the generally neglected interplay between the development of semantic alignment in Late Latin and the increase of P-labile verbs. The change in alignment implies the change of case marking of the intransitive alternants of P-labile verbs in the spoken language. Accusative subjects of intransitive alternants of P-labile verbs are scarcely attested, mainly because of the ambiguity between nominative and accusative in some nouns (see Table 7), the use of a null subject as the subject of the intransitive alternant and the standard use of the nominative as the case for unaccusative subjects. Furthermore, the discussed examples show us that the interpretation is scarcely ever decisive. Nevertheless, we hypothesize that the accusative has been used for the intransitive subject of P-labile verbs. From a typological perspective, P-lability became in this manner a weaker kind of lability, in which there are fewer syntactic differences between the shared Patient-like argument in the transitive and intransitive alternants. The change in morphosyntactic alignment favored the productivity of P-labile verbs, which resulted in a higher frequency and an extension of the verbal classes displaying P-lability, which are mainly originally transitive but also some originally intransitive verbs. Further research should delve deeper into the changing morphosyntax of P-labile verbs with a bigger corpus of Late Latin and should use a larger corpus for Latin before 200 AD to describe the semantic development of P-lability as an anticausative strategy and its interrelation with the reflexive strategy.

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Abbreviations

1	first person
2	second person
3	third person
A	Subject of a transitive clause (Agent or Effector)
ACC	accusative
ACT	active
ABL	ablative
DAT	dative
DEM	demonstrative
F	feminine
GEN	genitive
FUT	future simple
FUTPF	future perfect
IMP	imperative
IND	indicative
INF	infinitive
M	masculine
MPASS	mediopassive
N	neuter
NOM	nominative
P	Patient-like argument of a transitive clause
PTCP	participle
PL	plural
PP	prepositional phrase
PRF	perfect
PRS	present
PST	past
REFL	reflexive
REL	relative
S	single argument of an intransitive clause
S_A	single argument of an unergative clause
SBJV	subjunctive
SG	singular
S_P	single argument of an unaccusative clause

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