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Prohibitive clauses in some Indo-European languages

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Abstract

This paper explores prohibitive clauses in a selection of languages belonging to some branches of the Indo-European family. Prohibitive clauses are defined as negative directive clauses and express deontic modality. Unlike positive directive clauses, which characteristically select the imperative mood, prohibitive clauses have a variety of forms even across genetically closely related languages, differing along two dimensions: negation and verb form. As regards negation, there is variation as to whether prohibitive clauses select the same negation as negative assertive clauses or employ a special, prohibitive negation. As regards verb form, on the other hand, prohibitive clauses either show the same verb form as positive directive clauses, that is, an imperative, or a different form. In some languages, prohibitive clauses of the latter type select the same mood form as neutral assertive clauses, while other languages consistently show other mood categories in this clause type. Moreover, it is not uncommon that languages have more than one type of prohibitive clause. In such cases, one often finds a tendency to distinguish so-called inhibitive and preventive clauses.

keywords: clause types, deontic modality, typology, Indo-European languages

1. *Introduction*[1]

This contribution explores prohibitive clauses, that is negative directive clauses, across the Indo-European linguistic family. The empirical focus is restricted to Hittite (Anatolian), Vedic (Indo-Iranian), Homeric Greek (Greek), Early Latin (Italic), Gothic (Germanic), Tocharian A and B (Tocharian), and Old Irish (Celtic). These languages have been selected because they belong to the some of the oldest

[1] Data and R scripts are available at: https://github.com/eystdahl/DahlProhibitives.

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attested branches of this family and because they show considerable variation in their morphosyntactic realisation of prohibitive clauses[2].

Positive directive clauses have relatively unitary coding across languages. The examples in (1) illustrate that positive directive clauses characteristically select imperative forms in various Indo-European languages[3].

(1) a. *imám* *indra* *sutáṃ*
DEM.ACC.SG Indra:VOC soma.juice:ACC.SG
piba
drink:PRS.IMP.2SG
'Indra, drink this soma juice!'
(Rigveda VIII 6.36c [Vedic Sanskrit])

b. *allà* *sù* *mèn* *nûn* ***pîne***
CONJ 2SG.NOM PTCL now drink:PRS.IMP.2SG
kathḗmenos *aíthopa* *oînon*
sit:PRS.PTCP.NOM.SG fiery:ACC.SG wine:ACC.SG
'But now you sit down and drink the fiery wine'
(Hom. *Il.* 14.5 [Homeric Greek])

c. *gagg* *in* *gawairþi*.
go:IMP.2SG PRP peace:ACC.SG
'Go in peace!' (Luke 7:50 [Gothic])

d. *ārwer* *ptāka* *pelaikneṣṣe*
ready:NOM.SG be:IMP.2SG righteousness:OBL.SG
naumiye *klyauṣtsi*
jewel:OBL.SG hear:INF
'Be ready to hear the jewel of righteousness!'
(THT 100 b5 [Tocharian B])

[2] For reasons of space, we have chosen to leave out the Armenian, Slavic, Baltic, and Albanian branches from the present discussion, since their systems of prohibitive clauses seem to largely correspond to one or more of those found in the branches under scrutiny here.

[3] Unless otherwise noted, all translations are the author's own. The following abbreviations are used in the glosses: ABL: ablative; ACC: accusative; ADV: adverb; ALL: allative; ANAPH: anaphoric pronoun; AOR: aorist; ART: article; CONJ: conjunction; CONN: connective; COP: copula; DAT: dative; DEM: demonstrative; DF: definite article; DU: dual; F: feminine; FUT: future; GEN: genitive; IMP: imperative; INDF: indefinite; INF: infinitive; INJ: injunctive; INS: instrumental; IPF: imperfect; LOC: locative; M: masculine; MID: middle; N: neutrum; NA: nota augens; NEG: negation; NOM: nominative; OBL: oblique; OPT: optative; PASS: passive; PL: plural; POSS: possessive; PRP: preposition; PRF: perfect; PRL: perlative; PROH: prohibitive; PRS: present; PRT: preterite; PRV: preverb: PTCL: particle; PTCP: participle; QP; quotative particle; REFL: reflexive; REL: relative; SBJ: subjunctive; SG: singular; VN: verbal noun; VOC: vocative.

These examples illustrate that 2nd person singular imperative forms belong to the inventory of verbal categories characteristic of the Indo-European languages and that such forms are the default verb form in positive directive clauses.

In contrast, negative directive or *prohibitive* clauses present a much less unitary picture across these languages, as illustrated by the examples in (2).

(2) a. *ví* *uchā* *duhitar* *divo*
PRV shine:PRS.IMP.2SG daughter:VOC.SG heaven:GEN.SG
mā́ *ciráṃ* *tanuthā* *ápaḥ*
NEG longer protract:PRS.INJ.2SG work:ACC.SG
'Shine forth, o daughter of heaven, do not longer protract your work'
(Rigveda V 79.9 [Vedic Sanskrit])

b. *exaúda,* *mḗ* *keûthe*
speak.out:PRS.IMP.2SG NEG hide:PRS.IMP.2SG
nóōi
mind:DAT.SG
'Speak out! Don't hide (it) in (your) mind'
(Homer *Il.* 1.363 [Homeric Greek])

c. *jah* *qaþ* *du* *izai:* *ni* *gret!*
CONJ say:PRT.3SG PRP 3SG.DAT NEG cry:IMP.2SG
'And he said to her: "Don't cry"' (Luke 7:13)

d. *mäkte* *kca* *twe* *ce* *te-yäknece* *īke* *mā*
how INDF you DEM in.this.manner place NEG
kātkat
cross:SBJ.2SG
'You mustn't cross this point on any account'
(THT1103b2 after Peyrot 2013: 308 [Tocharian B])

These examples illustrate that prohibitive clauses differ along at least two dimensions. One dimension concerns the form of the negation. In some of the languages, e.g., Gothic and Tocharian B, the negation used in prohibitive clauses is identical to that used in assertive clauses. In other cases, prohibitive clauses have a different negation than that used in assertive clauses, as in Homeric Greek and Vedic Sanskrit. The other dimension concerns the verb form. In some languag-

es, illustrated here by Gothic and Homeric Greek, prohibitive clauses show the same verb form as positive directive clauses, the imperative. In contrast, Tocharian B and Vedic do not employ imperatives in prohibitive clauses but some other verb form. A typological classification of these variation patterns is given in Table 1.

		NEGATION (Compared to assertive clauses)	
		Same	Different
VERB FORM (Compared to positive directive clauses)	Same	*Gothic*	*Homeric Greek*
	Different	*Tocharian B*	*Vedic Sanskrit*

Table 1. Four different types of prohibitive clauses.

It should be noted, however, that many languages often display alternation between two or more prohibitive patterns, sometimes involving different prohibitive clause types. For example, in Homeric Greek we find prohibitive clauses like the one shown in (3a) in addition to those illustrated in (2b). On the other hand, alternation may also involve two or more patterns of the same type. Consider, for instance, the example from Tocharian B given in (3b), which instantiates a different pattern than that found in (2d).

(3) a. *sù* *dè* *mḗ* *ti*
2SG.NOM CNJ PROH DEM.SG.ACC
kholōthêis
be.angry:AOR.PASS.SBJ.2SG
'And don't you be angry for this!'
(Hom. *Il.* 9.33 [Homeric Greek])

b. *mā* *twe* *krämpetar*
NEG 2SG.NOM be.disturbed:PRS.MID.2SG
'Don't you be disturbed' (THT 23 b8 [Tocharian B])

The Homeric Greek example in (3) has a verb form in the subjunctive mood (*kholōthêis* 'you be angry'), thus representing the same type as the Vedic example in (2a). The example from Tocharian B, on the

other hand, contains a verb form in the so-called subjunctive, which is the main expression of futurity in neutral assertive clauses in Tocharian (cf. Peyrot 2013). Although this clause type thus represents the same general form as the one given in example (2d), the two types have different functions. As will be discussed in more detail in Section 3 below, alternations of this sort are rather common and tend to have converging functions in the Indo-European languages. Before turning to a discussion of the primary data, however, some preliminary observations on theoretical and methodological issues are presented in Section 2.

2. *Theoretical and methodological preliminaries*

In the introductory section, prohibitive clauses were characterised as 'negative directive clauses'; however, to develop a viable analytical framework we need to define the notion of directive clause. Drawing on the model outlined in Portner (2018: 121-124), we assume as a working hypothesis that there is a finite inventory of clause types, minimally including assertive, interrogative, and directive clauses. The different clause types are taken to be associated with different (sets of) sentence mood types understood as language-specific morphosyntactic patterns conventionally associated with different types of sentential force, in turn defined as 'the fundamental conversational functions within semantic/pragmatic theory' (Portner 2018: 122). Two points should be noted here. First, we assume a one-to-one relation between clause type and sentential force, so that a given clause type is principally associated with a given sentential force type or set of sentential force types. The exact inventory of sentential force types and, consequently, clause types is ultimately an empirical question which cannot be pursued here. However, an important issue that needs to be addressed concerns the characteristic features of directive clauses, which will be returned to shortly. Second, the relationship between clause types, on one hand, and sentential force and sentence mood, on the other, can be overruled by

pragmatic factors, for example by substituting the sentential force of a given clause type with different ones. This is, for instance, the case when an assertive clause is used with directive or interrogative force, as illustrated by sentences like those cited in (4).

(4) a. *You are going home now!*
b. *You are going home now?*

Such non-prototypical uses of clause types are the result of what we label 'pragmatic shift'. This paper does not systematically include such cases, primarily focussing on prototypical uses of clause types. However, some languages do not make any explicit morphosyntactic distinction between assertive and directive clauses, differentiating them by intonation or other phonological means (cf. e.g., Aikhenvald 2010: 89-92). It is especially important to keep this in mind when exploring directives in corpus languages, since the available written sources as a rule do not provide detailed information about different patterns of sentence intonation. This is clearly a disadvantage from a heuristic perspective, since we might find that prohibitive and negative assertive clauses have the same form in some of the languages in our sample, rendering a classification of any given sentence with the relevant properties difficult but not impossible. In such cases, textual genre and various types of discourse factors may serve as cues for classifying clauses as assertive or directive. Henceforth, the term 'directive clause' is shorthand for 'directive clause in prototypical function', that is, directive clause with characteristic modal force and sentence mood. This is intended to include cases where directive clauses are formally identical with assertive clauses.

We now turn to a brief discussion of the characteristic semantic properties of directive clauses, that is, their prototypical modal force. In several important studies, Mauri & Sansò (e.g., 2011, 2012) have explored the synchronic and diachronic properties of directive constructions. They define directive situations as situations where:

the **speaker** *wishes* a SoA [State-of-Affairs ED] to become true and conveys an appeal to the addressee(s) to help make this SoA true. The **performer(s)**

of the action(s) required to bring about the desired SoA may coincide (i) with the addressee, (ii) with the speaker, (iii) with a third party or (iv) with any possible combination of (i)-(iii). (Mauri & Sansò 2012: 149)

This definition highlights the fundamentally speaker-oriented character of the modal force of directive clauses (cf. also Bybee *et al.* 1994 with references)[4]. However, it is at least debatable whether the speaker's wish component is an obligatory part of directive modal force. One can easily conceive of situations where a directive utterance suggests a behaviour which is in the best interest of the addressee without any real volitional commitment on part of the speaker, as illustrated by the examples in (5).

(5) a. *Take the road across the bridge! It's faster.*
b. *Don't go bathing in the swamp! There are alligators there.*

We therefore prefer to define directive clauses in terms of rational behaviour of the performer rather than a wish of the speaker. What constitutes rational behaviour is highly context dependent, determined, amongst other things, by the relative balance of power or authority between the speaker and the intended performer(s), what sanctions or consequences may be expected in case of failing to comply with the requested mode of behaviour etc. Moreover, directive clauses do not seem to have the truth conditions characteristic of assertive clauses but have a fundamentally different set of discourse functions than the latter. Along the lines of Portner (2007) and Dahl (2010, 2012), we assume that assertive clauses append propositions to the Common Ground, that is, the knowledge or set of assumptions shared by the speech act participants. In contrast, directive clauses are taken to add properties to the so-called To-Do-List of a salient discourse referent, understood as the properties that ideally should be realised by the referent, assuming rational behaviour. Following Aikhenvald (2010, 2017), a distinction will be made between 'canonical' and 'non-canonical' di-

[4] Interestingly, however, this definition does not include the seemingly crucial condition that it must be within the performers power to bring about the SoA. We return to this point below.

rectives, canonical directives involving a second person performer and non-canonical directives having a first- or third-person performer. In the present context, we shall mainly be concerned with canonical directive clauses, even though non-canonical directive clauses will also occasionally be considered.

Another important question concerns the status of prohibitive clauses *vis-à-vis* positive directive clauses. Above, prohibitive clauses were defined as negative directive clauses, thus representing a subtype of the more general class of directive clauses, an assumption that seems to be uncontroversial (cf. e.g., van der Auwera 2006, 2010; van der Auwera & Devos 2012). It was noted in the introductory section that the formal expression of prohibitive clauses varies considerably even in genetically related languages. Mauri & Sansò (2011: 3489) observe that directive clauses frequently appear in everyday conversational contexts and that this makes them particularly prone to morphosyntactic change. They convincingly show that much of the variation found in directive clauses within and across languages reflects the fact that directive constructions result from various diachronic processes, including grammaticalization, constructionalisation, and cooptation (cf. Mauri & Sansò 2011, 2012). They also note that inner-paradigmatic variation is not uncommon with directive clauses, indicating that the morphosyntactic realization of different paradigmatic slots is determined by different strategies with a local scope at an earlier stage (cf. Mauri & Sansò 2011, 2012). In several works van der Auwera (e.g., van der Auwera 2006, 2010, van der Auwera *et al.* 2013a, 2013b) has established that there is a strong tendency across languages to make a formal distinction between assertive and directive clauses. This is reflected in the fact that only 122 of the 548 languages in the sample of van der Auwera *et al.* (2013a) do not show distinct 2nd person imperative forms. Moreover, languages seemingly show a clear preference for special prohibitive markers differing from the negation used in assertive clauses, as shown by the numbers given in Table 2 (cf. van der Auwera *et al.* 2013b).

		NEGATION (Compared to assertive clauses)		
		Same	Different	
VERB FORM (Compared to positive directive clauses)	Same	113 (22,8%)	182 (36,7%)	295 (59,5%)
	Different	55 (11,1%)	146 (29,4%)	201 (40,5%)
		168 (33,9%)	328 (66,1%)	496 (100%)

Table 2. Cross-linguistic distribution of prohibitive clauses.

Table 2 shows that as many as 328 of 496 languages examined by van der Auwera *et al.* (2013b) have a specialised prohibitive negation. It is also interesting to note that 295 languages have prohibitive clauses with the same verb form as positive directive clauses. These observations raise the question why the distinction between directive and non-directive clauses is so central in language. According to some scholars, like Zanuttini (1997: 145-149), syntactic constraints preclude the cooccurrence of imperative forms and assertive negation. However, the fact that 22.8% of the sample languages of van der Auwera *et al.* (2013b) show this constellation speaks against a constraint-based explanation along these lines (cf. also van der Auwera 2006, 2010). Another avenue of research assumes that the general preference for prohibitive markers reflects the fact that negated assertive clauses are stative, whereas directive clauses in general have a dynamic character even when negated (van der Auwera 2006, 2010). Here, we adopt the latter hypothesis, assuming that prohibitive clauses are sensitive to aspectual distinctions and more so than positive directive clauses. More specifically, Mauri & Sansò (2011: 3509) note that positive directive clauses show a pragmatic bias towards perfectivity, typically, though not necessarily, referring to a completed situation (cf. also van der Auwera *et al.* 2009). This ties in with the fact that variation of the sort illustrated in (2) and (3) above sometimes seems to be motivated by aspect-related factors, as will be elaborated in more detail shortly.

Apart from the various combinations of negative markers and mood categories outlined in the introduction, prohibitive clauses vary according to at least three sets of properties. One parameter of variation concerns the distinction between what is often labelled 'inhibitive clauses' and 'preventive clauses' (cf. e.g., Ammann 1927, Hoffmann 1967, Hollenbaugh 2020). Inhibitive clauses request the performer to discontinue a situation that is ongoing at the time of speech typically being expressed by an imperfective category, whereas preventive clauses involve a demand to abstain from performing a situation in the future being conveyed by perfective aspect. This analysis was originally proposed by Ammann (1927) and taken up by Hoffmann (1967). It represents the communis opinio in Indo-European linguistics but was recently criticized by Hollenbaugh (2020), who recurs to an analysis in terms of lexical aspect and discourse factors rather than grammatical aspect. Another parameter of variation concerns the distinction between controllable and uncontrollable situations, so-called 'preventive clauses' involving controllable situations and so-called 'prohibitive clauses' involving uncontrollable situations (cf. e.g., Birjulin & Xrakovskij 2001: 34, Willmott 2007: 96-107). The delimitation of controllability and/or uncontrollability is a matter of dispute and cannot be dealt with at length in the present context. It is uncontroversial, however, that positive directive clauses presuppose some notion of agent control (cf. e.g., Aikhenvald 2010: 187-189, 2017: 20-23). Cross-linguistically, many unaccusative predicates, e.g., *fall*, *lose*, *grow*, *decline*, as well as predicates denoting psychological states, e.g., *like*, *fear*, *worry*, *be angry*, or bodily states and processes, e.g., *cry*, *laugh*, *be hungry*, *fall*, tend to appear odd in the imperative except under certain contextual conditions (cf. e.g., Aikhenvald 2010: 187-189, 2017: 20-23). This clearly reflects a general condition on positive directive clauses, that the performer must be able to carry out the situation lest the directive utterance be nonsensical. Interestingly, predicates of this type generally tend to be more natural in prohibitive clauses. In the following discussion, predicates denoting psychological or bodily states and processes will be regarded as a core group of uncontrollable predicates, which have the advantage of being easily comparable across languages. Controllable predicates, on

the other hand, are taken to comprise most unergative predicates like *run*, *go*, *shut up*, and various types of two- and three-place predicates, e.g., *speak*, *put*, *do harm* etc. It should be noted that this definition of uncontrollable and controllable events differs fundamentally from the one on which Willmott's (2007) analysis is based. To avoid ambiguity, we will not employ the terms 'preventive' and 'prohibitive' to refer to these two subtypes of directive clauses but instead use the terms 'controllable' and 'uncontrollable' to characterise predicates and/or situations. Accordingly, the pertinent prohibitive clauses will sometimes be referred to as 'agentive prohibitive' and 'non-agentive prohibitive'. The third parameter we would like to suggest involves what may loosely be referred to as 'neutral' and 'marked' modal categories roughly corresponding to the descriptive categories 'realis' and 'irrealis' (cf. e.g., van der Auwera & Devos 2009, Mauri & Sansò 2011, 2012, Cristofaro 2012). For the purposes of this paper, it suffices to note that the indicative is primarily found in neutral assertive clauses and therefore considered the neutral or unmarked mood in all the languages under consideration, whereas all other modal categories, including the imperative, are considered non-neutral or marked. In the following section, we explore the properties of prohibitive clauses according to these parameters. Our investigation is informed by descriptive grammars, dictionaries, and pertinent special studies, wherever available. Selection of examples is partly based on mining of grammars, dictionaries, and secondary literature, and partly on text exploration. In some cases, we have deemed it relevant to perform more thorough quantitative analyses which are based on first hand data collection.

3. *Prohibitive clauses in Indo-European languages*

Before turning to a discussion of the language-specific data, a note on the hypothetical prehistory of the Indo-European languages is in order. In the present context, the reconstruction model in Figure 1 will be assumed as a working hypothesis. This model presupposes that it is possible to reconstruct three distinct prehistoric stages of Indo-Eu-

ropean, pre-Proto-Indo-European (pre-PIE), Proto-Indo-European (PIE), and Core Indo-European (Core IE) (cf. Melchert 2014, Dahl 2022 with references). PIE is the common ancestor of all the Indo-European branches including Anatolian, which by hypothesis branched off at an early stage. Core-IE is conceived of as the common ancestor of the other Indo-European branches and pre-PIE is the oldest reconstructable stage of this family, accessible via internal reconstruction.

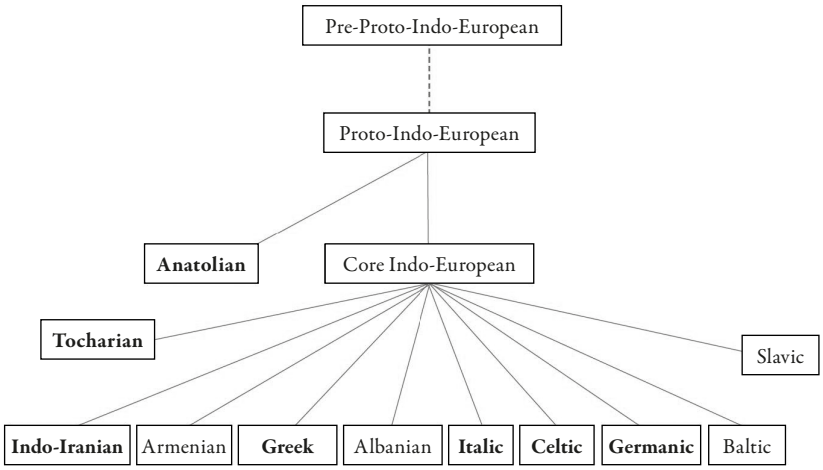

Figure 1. Stages and branches of Indo-European

The following subsections will deal with prohibitive clauses in representative languages of some branches of Indo-European, namely Anatolian, Indo-Iranian, Greek, Italic, Germanic, Tocharian, and Celtic.

3.1. *Anatolian*

Among the Anatolian languages, Hittite is best attested and will furnish the main bulk of data in this section. Three chronological stages of Hittite are conventionally distinguished, Old Hittite (ca. 1650-1450 BCE), Middle Hittite (ca. 1450-1350 BCE) and New Hittite (ca. 1350-1190 BCE). The Hittite verbal system has two tenses, present and preterit, and two moods, indicative and imperative. The imperative is the characteristic modal form in positive directive clauses in Hittite, as

illustrated by example (6a). Example (6b) shows that negated assertive clauses select the negative particle *natta* 'not'.

(6) a. *nu* *apāt* *uttar* *iya=pat*
CONN DEM.ACC.SG thing:ACC.SG do:IMP.2SG=PTCL
'Do that very thing!'
(HKM 10:13 after Hoffner 2009: 113 [Middle Hittite])

b. *natta* *apūn* GEŠTIN-*an* *piyer*
NEG DEM.ACC.SG wine-ACC.SG give:PRT.3PL
'They did not give us that wine' (KBo 3.34 ii 4-5 [Old Hittite])

Negative directive clauses, on the other hand, characteristically select the prohibitive negation *lē* and the present indicative, as illustrated by the examples in (7) (cf. Hoffner & Melchert 2008: 244, Daues 2022).

(7) a. *ANA* É.EN.NU.UN *lē* *daitti*
PRP prison PROH put:PRS.2SG
'Don't put him in prison!' (KBo 3.28 14-15 [Old Hittite])

b. *lē=wa* *nahtēni*
PROH=QP fear:PRS.2PL
'Don't be afraid!' (KUB 8.51 ii 15 [New Hittite])

These data show that Hittite has prohibitive clauses selecting another negation than assertive clauses and a different verb form than positive directive clauses. Interestingly, however, there are some examples of prohibitive clauses with *lē* and the imperative, as shown by the examples in (8).

(8) a. *lē=wa=tta* *naḫi*
PROH=QP=CONN be.afraid:IMP.2SG
'Don't be afraid!' (KUB 33.24 I 43 [Old Hittite])

b. *nu=tta* LÚ.MEŠ ŠU.GI URU KÙ.BABBAR-*ti*
CONN=CONN men oldest Ḫatti
lē *memiškandu*
PROH talk:IMP.3PL
'Don't let Ḫatti's elders continue speaking to you'
(KUB 1.16 ii 60 [Old Hittite])

The few attested examples of the construction with *lē* and imperative all seem to involve situations over which the performer does not have control. This fact may be indicative of a situation where Hittite had an alternation between two types of prohibitive clauses, a non-agentive with *lē* and imperative and an agentive with *lē* and indicative. The non-agentive type is exclusively attested in New Hittite copies of Old Hittite documents (cf. e.g., Hoffner & Melchert 2009: 345). This fact may be significant, since it could indicate that we are faced with a marginally attested archaism, given that this feature does not occur in other Middle or New Hittite texts[5]. Examples like that cited in (7b) suggest that this distinction was given up in Late Hittite. The examples in (8) also show that Hittite prohibitive clauses were compatible with non-neutral modality, as also indicated by passages like those given in (9).

(9) a. *lē=man=še* [LUG]AL-*uš*
PROH=OPT.PTCL=3SG.ACC king:NOM.SG
kiššan tezzi
thus speak:PRS.3SG
'The king should not speak like that to her!'
(KUB 1.16 iv 65-6 [Old Hittite])

b. *lē=man=wa=mu* *kuitki*
PROH=OPT.PTCL=QP=1SG.DAT INDF.NOM.SG
ḪUL-*u̯ešzi*
DO.HARM:PRS.3SG
'Don't let anything do me harm!' (KUB 31.66 iii 8 [New Hittite])

Here, the modal so-called 'optative particle' *man* introduces a non-neutral semantic feature, contributing to modifying the modal force of the clause. Hoffner and Melchert (2009: 345) note that this

[5] Evidence from the other two old Anatolian languages, Luwian and Palaic, is scarce and inconclusive. Melchert (2003: 206) notes that Luwian has two distinct negations, one (*nāwa*) for assertive clauses and another (*nīš*) for directive clauses. He also notes that both Cuneiform Luwian and Hieroglyphic Luwian show examples of prohibitive clauses with imperative and with indicative. According to Carruba (1970), Palaic has only one negation *nī(t)* which is used in both types of clauses. While the use of *nī(t)* with indicative forms in assertive clauses is unsurprising, it is noteworthy that the few examples of (potentially) prohibitive clauses in the admittedly very sparse Palaic corpus do not seem to contain finite verb forms, only participles (cf. Carruba 1972: 44).

prohibitive clause type is typically used when the addressee or performer is in some sense superior to the speaker being a more polite option.

Finally, a recent study by Daues (2022) makes a case for the claim that Hittite also shows a morphosyntactic distinction between inhibitive and preventive clauses. On her analysis, present forms based on the imperfective stem derived with the suffix *-ške/a-* tend to trigger an inhibitive meaning, whereas present forms lacking this suffix often display a preventive meaning, as illustrated by the examples in (10) (cf. Daues 2022: 106, 113).

(10) a. *n=an* *lē* *dammišḫiškanzi*
CONJ=3SG.ACC.C PROH harm:PRS.3PL
'And they shall not continue to harm it!'
(HKM 52, 16 [Middle Hittite])

b. *n=aš* LÚ.KÚR *lē* *dammisḫaizzi*
CONJ=3PL.ACC.C enemy PROH harm:PRS.3SG
'The enemy shall not harm it!' (HKM 25, 20-21 [Middle Hittite])

Data like these demonstrate that the alternation between the derived imperfective *-ške/a*-stem and the underived stem in some cases at least is exploited to convey a distinction between inhibitive and preventive prohibitive clauses.

Summing up, we note that Hittite prohibitive clauses consistently select the non-assertive negation *lē* and almost consistently selects the present indicative, apart from a few cases where imperative forms are employed. The prohibitive modal force may be modified by the so-called optative particle *man*, resulting in a more 'polite' prohibitive clause suitable for requests to a superior performer. Stem alternation is employed to some extent to distinguish inhibitive and preventive clauses.

3.2. *Indo-Iranian*

This section will mainly deal with data from Vedic Sanskrit, the oldest attested variety of the Indo-Aryan subbranch of Indo-Iranian[6].

[6] It should be noted that the data from Vedic Sanskrit discussed in this section represent Early Vedic, that is, the language of the Rigveda, if not otherwise noted.

Vedic Sanskrit has a complex verbal system including four tense/aspect stems (present, aorist, perfect, future) and a modal system comprising five mood categories, the indicative, injunctive, subjunctive, optative, and imperative (cf. e.g., MacDonell 1916). The example in (11a) illustrates that the imperative represents the default mood category in positive directive clauses. Example (11b) illustrates that the negation *ná* is employed in negative assertive clauses[7].

(11) a. *ā́* *no* *agne* *rayíṃ*
PRV 1PL.DAT Agni:VOC wealth:ACC.SG
bhara
bring:PRS.IMP.2SG
'Agni, bring wealth to us' (Rigveda I 79.8a)

b. *té* *devā́nāṃ* *ná* *minanti*
DEM.NOM.PL god:GEN.PL NEG violate:PRS.3PL
vratā́ni
ordinance:ACC.PL
'They do not violate the commands of the gods' (Rigveda VII 76.5c)

In Vedic Sanskrit, prohibitive clauses are characterized by the negation *mā́*, which differs from the assertive negation, and the injunctive mood, as illustrated by the examples in (12) (cf. Hoffmann 1967, Dahl 2010, Hollenbaugh 2020). This negation is restricted to main clauses.

(12) a. *vy* *ùcchā* *duhitar* *divo*
PRV shine:PRS.IMP.2SG daughter:VOC.SG heaven:GEN.SG
mā́ *ciráṃ* *tanuthā* *ápaḥ* /
PROH long:ACC.SG stretch:PRS.INJ.2SG work:ACC.SG
'Shine forth, daughter of heaven! Don't continue protracting you work any longer' (Rigveda V 79.9ab)

b. *púrūravo* *mā́* *mṛthā* *mā́*
Purūravas:VOC PROH die:AOR.INJ.2SG PROH
prá papto *mā́* *tvā* *vṛ́kāso*
PRV FALL:PRS.INJ.2SG PROH 2SG.ACC wolf:NOM.PL

[7] Examples follow Theodor Aufrecht's edition of the Rigveda (AUFRECHT 1877).

áśivāsa *u* *kṣan*
pernicious:NOM.PL PTCL eat:AOR.INJ.3PL
'Purūravas, do not die! Do not fall down! Do not let the pernicious wolves eat you!' (Rigveda X 95.15ab)

These examples suffice to illustrate the characteristic form of prohibitive clauses in Vedic Sanskrit. Here, prohibitive clauses characteristically show a different mood form than positive directive clauses and a different negation than the one used in assertive clauses. Moreover, example (12a) shows that present injunctive forms like *tanuthās*[8] 'protract' typically engender an inhibitive reading, while example (12b) demonstrates that aorist injunctive forms like *mṛthās* 'die', *paptas*[9] 'fall' and *kṣan* 'eat' tendentially trigger a preventive reading (cf. also Hoffmann 1967). Hoffmann (1967) argued that this distinction reflected the different aspectual properties of the present and aorist stems, the imperfective aspect of the present giving rise to the inhibitive reading and the perfective aspect of the aorist engendering a preventive reading (cf. also Ammann 1927). However, this analysis has recently been severely criticized by Hollenbaugh (2020), who plausibly derives the preventive and inhibitive interpretations from lexical semantic and contextual factors. Since the Vedic evidence has played a significant role for the reconstruction of the Core Indo-European system of prohibitive clauses, Hollenbaugh's (2020) findings have far-reaching implications, as will be discussed below.

In the framework outlined in Section 2 above, the indicative was generally defined as the neutral mood in all the languages under consideration, including Vedic. It should be noted, however, that the Early Vedic injunctive represents a modally underspecified category, which is compatible with a broader range of temporal and modal contexts than any other mood category[10]. A case could therefore be made for the claim that it represents an even more unmarked mood category than the indicative. Since a full-scale discussion of this problem is far beyond the scope of this article, we simply note that prohibitive

[8] Note that *tanuthā* in the text reflects the sandhi rule *ās# > ā / _#*[+voiced].
[9] Note that *papto* in the text reflects the sandhi rule *as# > o / _#*[+voiced].
[10] Cf. Kiparsky (2005); Dahl (2010) for discussion.

clauses consistently select a different mood form than neutral assertive clauses in addition to the special prohibitive negation *mā́*. In this respect, Vedic differs from Hittite, where prohibitive clauses select the same mood form as neutral assertive clauses. In his classical study of the Vedic injunctive, Hoffmann (1967: 92-98) notes that prohibitive clauses sporadically show other mood categories than the injunctive, notably the imperative, subjunctive, or optative. The relevant examples are mostly late and arguably dubious from a text-critical perspective. Among the early example we find the ones in (13).

(13) a. *mā́* *no* *hṛṇītām* *átithir*
PROH 1PL be.angry:PRS.IMP.3SG guest:NOM.SG
vásur *agníḥ*
good:NOM.SG agni:NOM.SG
'Don't let Agni, the good guest, be angry at us!'
(Rigveda VIII 103.12)

b. *mā́* *vo* *yā́meṣu* *marutaś*
PROH 2PL.ACC journey:LOC.PL Marut:VOC.PL
ciráṃ *karat*
long:ACC.SG make:AOR.SBJ.3SG
'Don't let him make you (too) long on your journeys, Maruts!'
(Rigveda V 56.7)

c. *mā́* *va* *éno* *anyákṛtaṃ*
PROH 2PL.DAT sin:ACC.SG made.by.another:ACC.SG
bhujema
suffer:AOR.OPT.1PL
'Don't let us suffer for a sin against you made by another!'
(Rigveda VI 51.7)

Hoffmann (1967: 92-97) discusses these and similar examples in detail and argues that they can be explained as secondary. The present middle imperative form *hṛṇītām* 'be angry' in (13a) may have been preferred to the corresponding injunctive form *hṛṇīta* to avoid an otherwise rare hiatus between a word final and word initial *a*. The aorist active subjunctive form *karat* 'will make' in (13b) instead of the expected injunctive *kar* reflects a tendency to replace athematic forms with thematic forms. Finally, Hoffmann (1967: 95-97) suggests that the otherwise isolated

prohibitive optative form *bhujema* 'may we enjoy, suffer' results from a syntagm originally involving the verbal noun *bhujé* and a first person pronoun *me* 'me', *naḥ* 'we'. While these explanations are convincing, it is not clear that they are necessary. As noted in Section 2 above, Mauri & Sansò (2011: 3489) point out that directive clauses are frequent in everyday discourse and therefore particularly prone to morphosyntactic change, something which would make us expect to find sporadic exceptions to the general schema of prohibitive clauses across languages. From this perspective, there is no need to explain away cases like those cited in (13).

Thus, we may conclude that Vedic Sanskrit represents a language where prohibitive clauses are formed by means of a negation differing from the assertive negation and with a different mood category than positive directive clauses and neutral assertive clauses. Comparative data from Avestan show that this reflects the Indo-Iranian system, cf. e.g., the examples in (14)[11].

(14) a. *huxšaϑrā* *xšāṇtąm*
whose.command.is.good:NOM.PL command:AOR.IMP.3PL
mā *nə* *duš.xšaϑrā*
PROH 1PL.ACC whose.command.is.bad:NOM.PL
xšāṇtā
command:AOR.INJ.3PL
'Let (now) those of good command command (us)! Let not those of bad command command us'
(Y 48.5 after Skjærvø 2009: 132 [Gatha Avestan])

b. *mā* *dim* *pərˀsō* *yim*
PROH DEM.ACC.SG ask:PRS.INJ.2SG REL.ACC.SG
pərəsahi
ask:PRS.2SG
'Don't ask him whom you are asking'
(H 2.17 after Skjærvø 2009: 129 [Young Avestan])

[11] Reichelt (1909: 320) notes that the negation *mā* co-occurs with optative forms in Young Avestan, a feature that most probably is secondary and would correspond to the Vedic example in (13c). It should be noted, however, that this development does not change the typology of prohibitive clauses in Avestan, since they still show different negation than assertive clauses and a different mood form than positive directive clauses, which also differs from the default mood used in neutral assertive clauses.

Thus, Vedic Sanskrit and Avestan belong to the class of languages where prohibitive clauses select a different negation than assertive clauses and a different verb form than positive directive clauses, which also differs from the default mood category in neutral assertive clauses.

3.3. *Greek*

The present section examines data from Homeric Greek, the oldest attested stage of Greek that is sufficiently well attested to delimit the functional range of verbal categories. The study of modal categories in Ancient Greek in general and Homeric Greek in particular, has engendered a rich tradition of research (cf. e.g., Goodwin 1889, Schwyzer 1950: 301-354, Chantraine 1963: 205-231, Willmott 2007, van Emde Boas *et al.* 2019: 438-446). As regards prohibitive clauses in Homeric Greek, Ammann (1927: 329-337) provides a detailed discussion, as does Willmott (2007: 90-110). Like Vedic Sanskrit, Homeric Greek has a verb system comprising four tense/aspect stems (present, aorist, perfect, future) and five modal categories (indicative, injunctive, subjunctive, optative and imperative)[12]. Example (15a) illustrates that the imperative is the preferred mood in positive directive clauses, while example (15b) shows that negated assertive clauses select the negation particle *ou(k)*[13].

(15) a. *Atreḗdē* *sù* *dè* *paûe*
son.of.Atreus:VOC 2SG.NOM PTCL check:PRS.IMP.2SG
teòn *ménos*
POSS.2SG.ACC rage:ACC.SG
'Son of Atreus, you check your rage now!' (Hom. *Il.* 1.282)

b. *all'ouk* *Atreḗdēi* *Agamémnoni*
CONJ NEG son.of.Atreus:DAT Agamemnon:DAT
hḗndane *thumôi*
please:IPF.3SG heart:DAT.SG
'But (this) did not please Agamemnon, son of Atreus in his heart' (Hom. *Il.* 1.24)

[12] The existence of the injunctive mood in Homeric Greek is disputed. I refer to West (1989) and Kiparsky (2005) for arguments in favour of this view.

[13] The examples follow West (1998, 2000).

In Homeric Greek, prohibitive clauses are characterized by the negation *mḗ* and alternately select imperative, subjunctive, and infinitive forms, as illustrated in (16).

(16) a. *exaúda,* *mḕ* *keûthe*
speak.out:PRS.IMP.2SG PROH hide:PRS.IMP.2SG
nóōi, *hína* *eídomen* *ámphō*
mind:DAT.SG so.that know:AOR.SBJ.1PL both:NOM.DU
'Speak out! Don't hide it in your mind, so that we both can understand' (Hom. *Il.* 1.363)

b. *mḕ* *neméṣa*
PROH be.angry:PRS.IMP.2SG
'Don't be angry!' (*Il.* 16.21-22)

c. *Priamídē,* *mḕ* *dḗ* *me* *hélōr*
son.of.Priam:VOC PROH PTCL 1SG.ACC prey:ACC.SG
Danaoîsin *eáṣēis* *keîsthai*
Danaean:DAT.PL let:AOR.SBJ.2SG lie:PRS.INF
'Son of Priam, don't let me lie here as prey for the Danaeans!' (Hom. *Il.* 5.684-685)

d. *alla* *sù* *mèn* *mḗ* *pō* *katadúseo*
CONJ 2SG.NOM PTCL PROH PTCL plunge:AOR.IMP.2SG
môlon *Árēos*
turmoil:ACC.SG Ares:GEN
'But you do not plunge into the turmoil of Ares!' (Homer *Il.* 18.134)

e. *mḕ* *sú* *g'* *áneuthen* *emeîo*
PROH 2SG.NOM PTCL without 1SG.GEN
lilaíesthai *polemízein*
long:PRS.INF fight:PRS.INF
'Don't long to fight (the Trojans) without me!' (Hom. *Il.* 16.89)

Thus, Homeric Greek has a rather variegated system of marking negative directive clauses, at least when compared with Anatolian and Vedic Sanskrit. According to the typology outlined in Tables 1 and 2 above, Homeric Greek prohibitive clauses instantiate two distinct types. One, illustrated in (16ab) has the same mood form as positive directive clauses and a different negation than assertive

clauses[14]. The other, illustrated in (16cd) has a different mood form than positive directive clauses and a different negation than assertive clauses. It should be noted, however, that the different types are not evenly distributed. Table 3 gives their absolute frequencies in the Iliad and the Odyssey.

	Present imperative	Aorist subjunctive	Aorist imperative	Infinitive
Iliad	73	14	4	14
Odyssey	42	2	1	6

Table 3. Distribution of prohibitive strategies in Homeric Greek.

These distribution patterns clearly show that the present imperative is the preferred mood category in Homeric Greek prohibitive clauses (cf. also Ammann 1927)[15]. However, Ammann (1927) identifies some important functional differences between the different prohibitive clause types. Under his analysis, prohibitive clauses with the present imperative are characteristically used to make the addressee change his attitude or interrupt his behaviour, that is, to discontinue an ongoing situation, as also illustrated in (16ab). In contrast, prohibitive clauses with aorist subjunctive forms are, on his account, primarily used to beg someone not to do something, typically involving an entreaty of a speaker that is in some sense inferior to the addressee. According to Ammann (1927), this is the case in example (16c), where Sarpedon addresses Hector, being under the latter's command. As shown in Table 3, prohibitive clauses with aorist imperatives constitute the rarest type. Ammann (1927) regards this type as an archaism and assumes that the Homeric Greek system

[14] Since infinitives can also, albeit marginally, be used in positive directive clauses in Homeric Greek, example (16e) also reflects this type.

[15] It should also be noted that the differences between the two works are not statistically significant, indicating that the two texts reflect the same stage of the language. A chi-square test of the numbers in Table 7 yielded a p-value of 0.24 and a chi-square value of 4.163 and three degrees of freedom ($\chi^2(3) = 4.163$). Since the p-value is well above the conventional significance level (0.05), it is probable that the differences are due to chance. The Cramér's V value is 0.163, indicating a small but reportable effect size. These results were obtained by the chi.sq() function in the standard package of R (R Core Team 2022) and the assocstats() function in the package vcd (Meyer *et al.* 2023).

of prohibitive clauses derives from a system of the type found in Vedic Sanskrit, where the injunctive is the main prohibitive mood. An analysis along these lines has the advantage of providing a straightforward explanation of the fact that this subtype of prohibitive clauses exclusively selects aorist imperative forms that are syncretic with corresponding aorist injunctive forms. Finally, Ammann (1927) regards prohibitive clauses with the infinitive as an inner-Greek innovation, which typically serves to express preventive exhortations, cf. example (16d).

As regards the distinction between agentive and non-agentive prohibitive clauses, the Homeric data are somewhat too imbalanced to arrive at a firm conclusion. Example (16b) above illustrates that the present imperative occurs with such verbs, but examples are few (cf. Willmott 2007: 96-106 for a different analysis). Similar patterns of co-occurrence are found in other languages, as will be discussed below.

These observations suggest that the system of prohibitive clauses in Homeric Greek is structured in a different manner than the Vedic system. Another relevant difference concerns the negation characteristic of prohibitive clauses, *mḗ*, which is etymologically connected with the Vedic prohibitive negation *mā́*[16]. For example, in Homeric Greek *mḗ* occurs in subordinate clauses, as in (17a), and in relative clauses, as in (17b), two patterns of use that do not occur in Vedic Sanskrit.

(17) a. *pántes* *d'Oulúmpoio* *katḗlthomen*
all:NOM.PL PTCL Olympus:GEN go.down:AOR.1PL
antióōntes *tês-de* *mákhēs,*
go.seek:PRS.PTCP.NOM.PL DEM.GEN.SG-PTCL battle:GEN.SG
hína *mḗ* *ti* *metà* *Trṓessi*
CONJ NEG PRON.ACC.SG PRP Trojan:DAT.PL
páthēisi *sḗmeron*
suffer:AOR.SBJ.3SG today
'We have all come down from Mount Olympus to seek the battle, so that he will not suffer anything among the Trojans today'
(Hom. *Il.* 20.125-127)

[16] In Vedic Sanskrit, the vowel *ā* may correspond to Homeric *ā*, *ē*, *ō* in all syllable types and *o* in open syllables, cf. e.g., Homeric Greek *dóru* 'stem, tree, spear' and Vedic *dā́ru* 'wood, timber'.

b. *estè* *dè* *pántes* *márturoi,* *hoùs*
be:PRS.2PL PTCL all:NOM.PL witness:NOM.PL REL.ACC.PL
mḗ *kêres* *éban* *thanátoio*
NEG fate:NOM.PL come:AOR.3PL death:GEN.SG
phérousai
carry:PRS.PTCP.NOM.PL
'You all are witnesses, to whom (the goddesses of) did not come carrying death' (Hom. *Il.* 2.301-302)

Examples like these illustrate that the negation *mḗ* is not restricted to prohibitive main clauses in Homeric Greek, thus having somewhat different properties than its cognate *mā́* in Vedic, which exclusively appears in prohibitive clauses.

3.4. *Italic*

This section examines prohibitive clauses in Italic, mainly drawing on evidence from Early Latin, as reflected in the comedies of Plautus. Early Latin has a verbal system comprising two aspect stems, the present or infectum and the perfect or perfectum stem. There are three morphological tense categories in Latin, the past, present, and future, and both aspect stems have distinct forms for all these tenses. We also find three mood categories in Latin, the indicative, subjunctive, and imperative, and two voice categories, the active and mediopassive (cf. e.g., Leumann *et al.* 1965, Pinkster 2015; Risselada 1993 deals with directive clauses in Latin). The imperative is the default mood category in positive directive clauses, as illustrated in (18a). Example (18b) demonstrates that the negation *nōn* is the characteristic marker of negated assertive clauses in Early Latin[17].

(18) a. *Tace* *atque* *abi* *intro*
be.silent:PRS.IMP.2SG CONJ go:PRS.IMP.2SG inside
'Shut up and go inside!' (Pl. *Aul.* 103)
b. *inde* *ex* *eo* *loco* *video*
ADV PRP DEM.ABL.SG place:ABL.SG see:PRS.1SG

[17] The examples follow LINDSAY (1905).

recipere *se* *senem;*
take.back:PRS.INF REFL old.man:ACC.SG
ille *me* *non* *videt*
DEM.3SG.NOM 1SG.ACC NEG see:PRS.3SG
'Then, from that place I saw the old man return; he did not see me'
(Pl. *Aul.* 709-710)

Early Latin has a complex system of negative directive clauses. One group characteristically employ the prohibitive negation *nē*, as illustrated by the examples in (19).

(19) a. *ne* *corrumpe* *oculos,* *redibo* *actutum.*
PROH spoil:IMP.2SG eye:ACC.PL return:FUT.1SG soon
'Don't spoil your eyes! I'll return soon' (Pl. *Am.* 530)

b. *ignosce,* *irata* *ne* *sies*
forgive:IMP.2SG angry:NOM.SG PROH be:PRS.SBJ.2SG
'Forgive (me), don't be angry!' (Pl. *Amph.* 924)

c. *Ne* *sic* *fueris:* *ilico* *ego* *non*
PROH thus be:PRF.SBJ.2SG ADV 1SG.NOM NEG
dixero.
say:PRF.FUT.1SG
'Don't be like that! In that case I won't say that' (Pl. *As.* 840)

These examples illustrate that prohibitive clauses with *nē* alternately select the present imperative (*corrumpe*), the present subjunctive (*siēs*) or the perfect subjunctive (*fueris*). Thus, the situation in Early Latin is analogous to the one in Homeric Greek, where we have seen that prohibitive clauses instantiate two of the types outlined in Tables 1 and 2 above. The type illustrated in (19a) has the same mood category as positive directive clauses and a different negation than assertive clauses. The distribution of the three constructions is given in Table 4.

Present imperative	Present subjunctive	Perfect subjunctive
45	56	12

Table 4. Distribution of verb forms in prohibitive sentences in Plautus.

These data indicate that the present imperative and subjunctive are preferred in prohibitive clauses with *nē* in Early Latin, while perfect subjunctive forms are somewhat more marginal[18]. de Melo (2007b) draws attention to a likely cause for the relative paucity of perfect subjunctive forms in prohibitive clauses in Early Latin, namely the heterogeneous origin of the perfect. It is uncontroversial that the Latin perfect has risen through a merger of the Core IE aorist and perfect. This is most clearly visible in the distinction between reduplicated perfects of the type *dedī* from *dō* 'give' reflecting the Core IE reduplicated perfect, and sigmatic perfects of the type *scrīpsī* from *scrībō* 'write' reflecting the Core IE sigmatic aorist (cf. e.g., Meiser 2003). de Melo (2007b) draws attention to the fact that subjunctive forms of the highly productive *-v/u-* perfect of the type *amāvī* from *amō* 'love' and *monuī* from *moneō* 'admonish', which is assumed by some scholars to derive, at least partly, from the Core IE perfect participle in **-u̯os-/-u̯es-/-us-* reflected, for instance, in Vedic *cakr̥vā́ṃs-/cakr̥vás-/cakrúṣ-* from *kar-* 'do, make' (cf. e.g., Meiser 1998: 204 with references ; for alternative analyses, cf. Weiss 2020: 436). According to de Melo (2007b: 66), «Plautus and Terence try to avoid perfects with old perfect stems in prohibitive clauses and instead use special aorist forms wherever possible». Along the lines of de Melo's (2007b) analysis, this would seem to reflect that the reduplicated perfect stem type had maintained some of the semantic properties inherited from Core IE, where it most likely represented a resultative or anterior category[19]. These considerations suggest, therefore, that the use of the

[18] A chi-square test yielded a p-value of 9.005e-07, a chi-square value of 27.841 and two degrees of freedom ($\chi^2(2) = 27.841$), clearly indicating the distributional differences are statistically significant. These results were obtained via the chisq.test() function in R (R core team 2022). Given that the distribution of present imperative and subjunctive forms is almost equal, this clearly is due to the low number of perfect subjunctive forms in this clause type.

[19] An important argument in favour of an analysis along such lines is that the merger of the perfect and aorist is comparably late and probably not of Proto-Italic origin, both because the distribution of reduplicated and various originally aoristic stems with etymologically related verbs varies across the Italic languages and even in Latin one finds synchronic pairs such as *pepercī* (e.g., Pl. *Aul.* 381) and *parsī* (e.g., Pl. *Trin.* 316), both from *parcō* 'spare, act sparingly' (cf. Meiser 2003).

Latin perfect subjunctive in prohibitive clauses was subject to rather strict constraints.

From this perspective, it is interesting to note that Ammann (1927: 337) distinguishes no less than 10 different types of prohibitive clauses in Early Latin. Apart from those already discussed, they include the constructions illustrated in (20)[20].

(20) a. *caue* *tu* *mihi* *iratus*
beware:PRS.IMP.2SG 2SG.NOM 1SG.DAT angry:NOM.SG
fuas
be:PRS.SBJ.2SG
'Don't you be angry with me!' (Pl. *Capt.* 431)

b. *caue* *quicquam,* *nisi* *quod*
beware:PRS.IMP.2SG INDF.ACC.SG CONJ REL.ACC.SG
rogabo *te,* *mihi* *responderis*
ask:FUT.1SG 2SG.ACC 1SG.DAT answer:PRF.SBJ.2SG
'Don't answer anything to me unless I will ask!' (Pl. *Amph.* 608)

c. *noli* *irascier*
not.want:PRS.IMP.2SG become.angry:PRS.INF.PASS
'Don't be angry!' (Pl. *Capt.* 845)

d. *Heus* *tu,* *si* *quid* *per* *iocum*
EXCL 2SG.NOM CONJ REL.ACC.SG PRP joke:ACC.SG
dixi, *nolito* *in* *serium*
say:PRF.1SG not.want:FUT.IMP PRP serious:ACC.SG

[20] In addition to the types discussed previously and those given in (12), Ammann (1927: 337) distinguishes a prohibitive clause type with *nē* and the so-called future imperative of the *facitō* type, one with *nē* and a sigmatic subjunctive of the *faxis* type, both from *faciō* 'do, make' and one with *caue* and the sigmatic subjunctive. He notes (Ammann 1927: 338), however, that the former type is marginally attested, only citing Pl. *Merc.* 1021 as evidence, which, moreover, seems to be used to parody the formal style of legal texts. Drawing on de Melo (2007a: 191-215), we consider the sigmatic subjunctive to represent a variant of the present subjunctive with some verbs and of the perfect subjunctive with other verbs. This polyfunctionality reflects the fact that the sigmatic subjunctive probably does not derive from a unitary Core IE source, but partly continues optative forms of sigmatic aorist stems and partly optative forms of a sigmatic present stem type, reflected, for instance, in Early Latin forms like *faxō* from *faciō* 'do, make'. Prohibitive clauses containing such forms are therefore considered as belonging to the type with *nē* and present subjunctive or the type with *nē* and perfect subjunctive. Similar considerations apply to the *caue faxis* type.

convertere
change:PRS.INF
'Hey, if I've said something as a joke, don't you change it into something serious!' (Pl. *Poen*. 1320-21)

According to Ammann's (1927: 342-344) analysis, the type illustrated in (20a) roughly corresponds to the prohibitive clause type with *nē* and present subjunctive (19b). The type in (20b), on the other hand, exclusively shows a preventive function, thus essentially having the same properties as the prohibitive clause type with *nē* and perfect subjunctive (19c) (cf. Ammann 1927: 343). Moreover, the type with the present indicative form *noli* and infinitive, illustrated in (20c) roughly corresponds to the ones illustrated in (19b) and (20a), typically having an inhibitive meaning (Ammann 1927: 343). Finally, the type shown in (20d), with the so-called future imperative form *nolite* and infinitive is only attested three times in the Plautine corpus. According to Ammann (1927: 344), it has the same function as the type illustrated in (19c), with *nē* and perfect subjunctive. Table 5 gives a schematic overview of Ammann's (1927) classification of the various types of prohibitive clauses in Early Latin discussed here, as reflected in the comedies of Plautus.

Inhibitive	Preventive
nē + present subjunctive	*nē* + perfect subjunctive
nē + present imperative	[*nē* + future imperative]
nē + sigmatic subjunctive	
caue + present subjunctive	*caue* + perfect subjunctive
caue + sigmatic future	
noli + infinitive	*nolito* + infinitive

Table 5: Ammann's (1927) classification of Early Latin prohibitive clauses.

We noted earlier that there seems to be a general tendency to avoid using perfect subjunctive forms in prohibitive clauses with *nē* in Early Latin. In this context, prohibitive strategies involving verbs selecting

for a finite or infinite complement clause such as *caueō* 'beware' and *nōlō* 'not want' represented viable alternatives[21].

Given the complexity of the Early Latin system of prohibitive clauses and the many overlapping categories, it would not be surprising if there were systematic correlations between certain clause types and certain functions. We have already seen that prohibitive clauses with *nē* instantiate two of the four types outlined in Section 2. For the sake of completeness, we note that prohibitive clauses with *caue* and *noli* in principle also belong to the prohibitive clause type that selects a different mood form than positive directive clauses and a different negation than assertive clauses. Apart from the parameter involving inhibitive and prohibitive clauses, which clearly seems to play a fundamental role in Early Latin, two more parameters were distinguished in Section 2, one concerning agentive and non-agentive prohibitions and one concerning whether the mood category characteristic of neutral assertive clauses appears in prohibitive clauses. Interestingly, non-agentive prohibitions seem to show a clear preference for the clause types *nē* + present imperative, as illustrated in (21a), and *nōli* + infinitive, as illustrated in (21b) (cf. also 20c). However, neither of these types are restricted to uncontrollable situations, as shown in (21cd).

(21) a. *Ne* *fle,* *mulier*
PROH cry:PRS.IMP.2SG woman:VOC.SG
'Don't cry, woman!' (Pl. *Epid.* 601)

b. *Noli* *flere*
not.want:PRS.IMP.2SG cry:PRS.INF
'Don't cry!' (Pl. *Pers.* 622)

c. *ne* *me* *appella,* *falsa,*
PROH 1SG.ACC call:PRS.IMP.2SG false:VOC.SG
falso *nomine*
false:ABL.SG name:ABL.SG
'Don't call me, o false one, by a false name!' (Pl. *Amph.* 813)

[21] Interestingly, prohibitive markers derive from verbal predicates in many languages (cf. VAN DER AUWERA 2010: 161-165).

d. *quaeso* *hercle* *noli,* *Saurea,*
beg:prs.1sg by.Hercules not.want:prs.imp.2sg Saurea:voc
mea *causa* *hunc* *verberare*
poss.adj.1sg.abl.sg reason:abl.sg 3sg.acc beat:prs.inf
'By Hercules, I beg you, Saurea, don't beat him because of me!'
(Pl. *As.* 417)

In contrast, the types with *caue* and present or perfect subjunctive characteristically involve controllable situations, as illustrated in (22ab) (cf. also examples (20ab) above). Similar observations apply to prohibitive clauses with *nē* and perfect subjunctive, as illustrated in (19c) above and example (22c). In contrast, prohibitive clauses with *nē* and present subjunctive seem to be indifferent to this distinction, as shown by a comparison between example (19b) above and example (22d).

(22) a. *fac* *fidelis* *sis* *fideli,*
do:prs.imp.2sg loyal:nom.sg be:prs.sbj.2sg loyal:dat.sg
cave *fidem* *fluxam*
beware:prs.imp.2sg loyalty:acc.sg fluid:acc.sg
geras
perform:prs.sbj.2sg
'Do (so that) you are loyal to the loyal, don't practice fluid loyalty!'
(Pl. *Capt.* 439)

b. *abige* *abs* *te* *lassitudinem,*
drive.away:prs.imp.2sg prp 2sg.abl weariness:acc.sg
cave *pigritiae* *praeverteris*
beware:prs.imp.2sg sloth:dat.sg turn.oneself.over:prf.sbj.2sg
'Drive away from yourself weariness! Don't turn yourself over to sloth!' (Pl. *Merc.* 113)

c. *ubi* *voles* *pater* *esse,* *ibi*
where want:fut.2sg father:nom.sg be:prs.inf there
esto; *ubi* *noles,* *ne*
be:fut.imp.2sg where not.want:fut.2sg proh
fueris *pater.*
be:prf.sbj.2sg father:nom.sg
'Where you want to be a father, there be (a father)! Where you don't want to be a father, (there) don't be a father!' (Pl. *Epid.* 595)

d. *Audin* *tu,* *patrue?* *dico,*
listen:PRS.2SG.PTCL 2SG.NOM uncle:VOC.SG tell:PRS.1SG
ne *dictum* *neges!*
PROH tell:PRF.PTCP.ACC.SG deny:PRS.SBJ.2SG
'Do you listen, uncle? I am telling you, don't deny (that you have been) told!' (Pl. *Poen.* 1155)

As regards the fourth parameter, we note that Early Latin does not employ indicative forms in prohibitive clauses. Taken together, the Early Latin system of prohibitive clauses turns out to be rather complex, at least compared to other Indo-European languages.

3.5. *Germanic*

This section deals with prohibitive clauses in Germanic, based on data from Gothic. The Gothic verbal system comprises two tenses, present and preterit, two voice categories, active and middle, and three mood categories, the indicative, optative and imperative (cf. e.g., Streitberg 1981, Braune & Heidermanns 2004, Miller 2019). Gothic only has imperative forms in the present active, but optative forms are found both in the present and the preterit.

The imperative is the characteristic mood used in positive directive clauses in Gothic. Moreover, the negation *ni* is used in both assertive and directive modal contexts. The examples in (23) illustrate the use of the imperative in positive directive clauses and the use of *ni* in negative assertive clauses[22].

(23) a. *iþ* *þu* *þan* *bidjais,* *gagg*
CONJ 2SG.NOM ADV pray:PRS.OPT.2SG go:IMP.2SG
in *heþjon* *þeina*
PRP room:ACC.SG POSS.2SG.ACC.SG
'But you, when you shall pray, go into your room!' (Matt. 6:6)

b. *frauja,* *framwigis* *gif* *unsis*
lord:VOC.SG always give:IMP.2SG 1PL.DAT

[22] The text follows Streitberg (2000).

þana *hlaif*
DEM.ACC.SG bread:ACC.SG
'O lord, always give us this bread!' (John. 6:34)

c. *ni* *in* *Israela* *swalauda* *galaubein*
NEG PRP Israel:DAT so.great:ACC.SG faith:ACC.SG
bigat
find:PRT.1SG
'I have not found so great faith in Israel' (Matt. 8:10)

Negative directive clauses, on the other hand, characteristically select the optative, although imperative forms are also sometimes found in this type of context, as illustrated by the examples in (24) (cf. also Streitberg 1981: 48-52, Cuendet 1924: 94-95).

(24) a. *ni* *in* *þata* *weihs* *gaggais*
NEG PRP DEM.ACC.SG village:ACC.SG go:PRS.OPT.2SG
'Don't go into that village!' (Mark 8:26)

b. *aþþan* *izwara* *jah* *tagla*
CONJ POSS.2PL.NOM.PL CONJ hair:NOM.PL
haubidis *alla* *garaþana*
head:GEN.SG all:NOM.PL count:PRT.PTCP.NOM.PL
sind *ni* *nunu* *ogeiþ*
be:PRS.3PL NEG ADV be.afraid:PRS.OPT.2PL
'But the hairs of your head are all numbered. So don't be afraid!' (Matt. 10:30-31)

c. *jah* *gadrobnoda* *Zakarias*
CONJ be.troubled:PRT.3SG Zakarias:NOM
gasaihvands, *jah* *agis*
see:PRS.PTCP.NOM.SG CONJ fear:NOM.SG
disdraus *ina.* *qaþ*
fall.upon:PRT.3SG DEM.SG.ACC say:PRT.3SG
þan *du* *imma* *sa* *aggilus:*
ADV PRP DEM.SG.DAT DEM.SG.NOM angel:NOM.SG
ni *ogs* *þus,* *Zakaria,*
NEG fear:IMP.2SG 2SG.DAT Zacharias:VOC
'And witnessing (this), Zakarias was troubled and fear fell upon him. Then the angel said to him: "Don't fear for yourself, Zacharias!"' (Luke 1:12-13)

d. *gaigrotun* *þan* *allai* *jah* *faiflokun*
cry:PRT.3PL ADV all:NOM.PL CONJ mourn:PRT.3PL
þo. *þaruh* *qaþ:* *ni* *gretiþ,*
DEM.SG.ACC CONJ say:PRT.3SG NEG cry:IMP.2SG
unte *ni* *gaswalt,* *ak* *slepiþ.*
CONJ NEG die:PRT.3SG CONJ sleep:PRS.3SG
'They all cried and mourned her. But (Jesus) said: "Don't cry! For she is not dead but is sleeping"' (Luke 8.52)

Streitberg (1981: 49) notes that prohibitive clauses with a second person addressee almost always contains an optative form. To substantiate this observation, a targeted search in the Gospels of the Gothic bible was conducted which yielded 48 second person prohibitive clauses with optative forms and 20 with imperative forms, a difference that is statistically significant[23]. Thus, we conclude that the optative represents the preferred mood *vis-à-vis* the imperative in prohibitive clauses in Gothic. However, at the same time, these facts show that Gothic prohibitive clauses instantiate two of the types given in Tables 1 and 2 above. The preferred pattern is one with the same negation as assertive clauses and a different mood than positive directive clauses. The minority pattern is one with the same negation as assertive clauses and the same mood as positive directive clauses. There is some evidence that this morphosyntactic alternation correlates with the distinction between inhibitive and prohibitive clauses. Specifically, prohibitive clauses with the optative characteristically have a preventive reading, as illustrated by the examples (24ab). In contrast, prohibitive clauses with the imperative characteristically have an inhibitive meaning, as illustrated in (24cd) (cf. also Streitberg 1981: 49-50). As regards the dimension of controllable vs. uncontrollable situations, we may note that prohibitive clauses with the imperative involve uncontrollable situations in 10 out of 20 cases in our corpus, whereas uncontrollable situations comprise 6 out of 49 cases of prohibitive clauses with

[23] A chi-square test of these frequencies yielded a p-value of 0.000685, a chi-square value of 11.529 and one degree of freedom ($\chi^2(1) = 11.529$). These results were obtained via the chisq.test() function in R (R core team 2022).

the optative. The different distribution patterns of the two types of prohibitive clauses over the two types of predicates is statistically significant[24]. This is indicative of a significant attraction between imperative-based prohibitives and uncontrollable events, on the one hand, and optative-based prohibitives and controllable events, on the other. Finally, we note that the indicative, the default mood of neutral assertive clauses, is not used in prohibitive clauses in Gothic.

3.6. *Tocharian*

This section deals with prohibitive clauses in Tocharian. According to Malzahn (2010), the Tocharian verbal system is built on five stems or bases, the present stem, the subjunctive stem, the preterit stem, the imperative stem, and the stem of the preterit participle. As regards finite verb categories, the present stem forms the basis for the present and (past) imperfective, while the so-called subjunctive and optative are derived from the subjunctive stem. The preterit and imperative stems show one category each, the preterit and imperative respectively. Important works dealing with the syntax of the Tocharian verb categories include Thomas (1957, 1958), Krause & Thomas (1960: 173-189) Pinault (2008), Peyrot (2013), and Adams (2015). Thomas (1958) provides a discussion of prohibitive clauses in Tocharian.

A peculiar feature of Tocharian compared to other Indo-European languages is that imperative forms are characterized by a prefix *pä-* which interacts in intricate ways with the root-initial sound (cf. e.g., Pinault 2008: 605-607 for discussion). An important difference between Tocharian A and B is that the former has two negation markers, assertive *mā* and prohibitive *mar*, whereas the latter has a syncretic form *mā*[25]. Following Thomas' (1958), it therefore seems advisable to first consider evidence from Tocharian A and then proceed with an

[24] A chi-squared test of the data yielded a p-value of 0.002235, a chi-square value of 9.3457, and 1 degree of freedom ($\chi^2(1) = 9.3457$). The Cramér's V value is 0.406, indicating a medium effect size. The results were obtained via the chisq.test() function in R (R core team 2022) and the assocstats() function in the R package vcd (Meyer *et al.* 2023).

[25] Note that Tocharian AB *mā* is cognate to the Vedic prohibitive marker *mā́* and the Homeric Greek prohibitive marker *mḗ* (cf. e.g., Adams 2013: 478).

examination of data from Tocharian B. The examples in (25) illustrate the use of the imperative in positive directive clauses and of the negation *mā* in assertive clauses, respectively[26].

(25) a. *pyām* *yärk* *krañcäśśi*
do:IMP.2SG honour:OBL.SG good:GEN.PL
'Do honour to the good ones!'
(THT 889, A 256 a4 [Tocharian A])

b. *mā* *wäryo* *sikaṃtär* *mā* *lāñcsā*
NEG water:INS be.overflown:PRS.3PL NEG king:PRL.PL
pärtsi *yāteñc*
bear:INF be.able:SBJ.3PL
'They are not overflown by water, they cannot be carried away by kings' (THT 647, A 14 a2 [Tocharian A])

As regards clauses containing the prohibitive negation *mar*, Thomas (1958) identified three main patterns, one selecting the present (26a), one selecting the subjunctive (26b), and one selecting the optative (26cd).

(26) a. *mar* *yat* *mar* *yat* *mar* *slākkär*
PROH do:PRS.2SG PROH do:PRS.2SG PROH sad:ADV
naṣt *yaṃtrācāre*
be:PRS.2SG mechanic:VOC.SG
'Don't do (it)! Don't do (it)! Don't be sad, mechanic!'
(THT 642, A 9 b3-4 [Tocharian A])

b. *āpas* *pācräśśi* *śaśmunt*
ancestor:OBL.PL father:GEN.PL establish:PRT.PTCP.OBL.SG
slyi *cam* *mar* *katkat*
rule:OBL.SG DEM.OBL.SG PROH cross:SBJ.2SG
'The rule established by (our) ancestors and fathers, don't violate it!'
(THT 889 A 256 a4 [Tocharian A])

c. *kapśiññо* *śkaṃ* *omäskeṃ* *mar* *yāmiṣ*
body:INS.SG CONJ evil:OBL.SG PROH do:OPT.3SG
'One should not do evil with one's body!'
(THT 988, A 354 a5 [Tocharian A])

[26] The examples follow *A Comprehensive Edition of Tocharian Manuscripts* (CEToM). Created and maintained by Melanie Malzahn, Martin Braun, Hannes A. Fellner, and Bernhard Koller https://cetom.univie.ac.at/.

d. *mar* *tmäyok* *riñitār-äm*
proh just.then leave:OPT.2SG-PRON.SUFF.1PL
'Do not abandon us just then!' (YQ II.6 a7 [Tocharian A])

The examples in (26ab) show that prohibitive clauses with second person addressee characteristically select the present indicative or the subjunctive, whereas prohibitive clauses with the optative typically involve general precepts with third person addressee (26c), even if some examples with second person addressee are attested (26d). Thomas (1958) demonstrated that prohibitive clauses with the present indicative have an inhibitive meaning, whereas prohibitive clauses with subjunctive forms tend to show a preventive meaning, which also seems to be the case with prohibitive clauses with second person optative forms (cf. also Pinault 2008: 355, Peyrot 2013: 242-244). According to Peyrot (2013: 232-244), a central difference between the subjunctive and the optative in main clauses including prohibitives is that the optative has an emphatically modal meaning, whereas the subjunctive denotes a future situation. Thus, examples like (26d) may be interpreted as expressing a somewhat weaker request than examples like (26b). Regarding the dimension of controllable vs. uncontrollable situations there seems to be a slight tendency that the present indicative is preferred with uncontrollable situations[27]. Finally, prohibitive clauses of the type illustrated in (26ab) select the same mood categories as neutral assertive clauses, a feature distinguishing Tocharian A from the other languages discussed so far in this paper.

Tocharian B has only one negation, *mā*, which is used in assertive as well as directive clauses. The examples in (27) illustrate the use of the imperative in positive directive clauses and the use of *mā* in assertive clauses.

(27) a. *pi* *ten* *nai* *pkārsa* *päst*
PTCL DEM.OBL.SG PTCL know:IMP.2SG ADV
paṣ *ñy* *ostameṃ*
go:IMP.2SG 1SG.GEN house:ABL.SG
'Indeed, know this! Get away from my house!'
(THT 23 b6 [Tocharian B])

[27] Cf. e.g., example (26a) and THT 664/A 31 a3 *kāckäc* 'rejoice', THT 699/A 66 a6 *yutkatār* 'worry', or YQ I. 10 a8 *klopasu naṣṭ* 'be sorrowful'.

b. *pyāmtso* *säswentse* *yaitkor*
do:IMP.2PL lord:GEN.SG order:OBL.SG
'Act according to the lord's order!' (THT 589b3 [Tocharian B])

c. *mā* *sū* *ksa* *nesäṃ*
NEG DEM.NOM.SG INDF.PRON.NOM be:PRS.2SG
ce *śaiṣṣene* *k$_u$se* *ñiś* *maiyyasa*
DEM.OBL world:LOC.SG REL.NOM 1SG.OBL strength:PRL
cämpalle *ṣai* *ceṃ*
be.able:GER be:PRS.3SG DEM.OBL
erkatñe(ne) *kalatsi*
displeasure:LOC bring:INF
'There is no one in this world who could have brought me into this misfortune by his power'
(THT 93b6, after Peyrot 2013: 340 [Tocharian B])

Prohibitive clauses in Tocharian B show essentially identical mood selection patterns as corresponding clauses in Tocharian A. The following examples illustrate prohibitive clauses with the present (23a), the subjunctive (23b), and the optative (23c) (cf. also Thomas 1958 for discussion).

(28) a. *mā* *traṅko* *yamas-ne*
PROH sin:OBL.SG do:PRS.2SG-3SG.OBL
'Don't blame him!' (lit. 'don't do any sin to him!')
(THT 88 b4 [Tocharian B])

b. *mäkte* *kca* *twe* *ce* *te-yäknece* *īke*
how INDF you DEM such place
mā *kātkat*
NEG cross:SBJ.2SG
'You mustn't cross this point on any account'
(THT1103 b2 after Peyrot 2013: 308 [Tocharian B])

c. *mā* *l(āre)* *yamītär* *yolaiṃ*
NEG dear:NOM.SG make:OPT.3SG.MID bad:OBL.SG
waṣamoṃ
friend:OBL.SG
'One shall not love a bad friend!' (lit. 'make oneself dear')
(THT 308 a2)

Thus, Tocharian B belongs to the set of languages where prohibitive clauses select a different verb form than positive directive clauses and the same negation as assertive clauses. Just like in Tocharian A, the most salient morphosyntactic patterns found in prohibitive clauses involve the present and subjunctive, two categories representing the default mood choice in neutral assertive clauses. According to Thomas (1958), we find the same distribution of present and subjunctive forms as in Tocharian A, associated with inhibitive and preventive prohibitions, respectively. Taken together, however, Tocharian B represents a type of language not previously met with in this paper, where prohibitive clauses are structurally identical with negative assertive clauses referring to the present and future. This implies that negative directive clauses and negative assertive clauses are distinguished on a primarily pragmatic basis in Tocharian B, the morphosyntactic dimension playing little or no role[28]. Consequently, the assessment and classification of negative directive clauses as opposed to positive directive clauses must be done on a case-for-case basis, rendering a precise evaluation of the semantic scope of the two main types of prohibitive clauses extremely time-consuming, for instance regarding whether they show any patterns of preference regarding uncontrolled and controlled situations. A more thorough study of prohibitive clauses in Tocharian B will therefore have to be undertaken in future research (cf., however, Thomas 1958).

In this section we have seen that Tocharian A and B have different systems of prohibitive clauses. While both share the characteristic of allowing prohibitive clauses to alternately select present and subjunctive forms, thereby distinguishing inhibitive and preventive clauses, they differ in an important respect, namely that Tocharian A has a special prohibitive negation *mar* beside the assertive negation *mā*, whereas Tocharian B only has a syncretic negation *mā*. The negation particle

[28] It is likely that these two clause types were distinguished by some phonological means, for instance different intonation patterns (cf. Aikhenvald 2010: 89-92). However, apart from the fact that such distinctions are not marked in the available sources and thus cannot be retrieved, the lack of overt morphosyntactic distinction between assertive and directive clauses, positive and/or negative, seems to be rather uncommon across languages (cf. e.g., van der Auwera *et al.* 2013a, 2013b, van der Auwera 2010).

mā is inherited, having parallels in Vedic, Homeric Greek, and, as we shall see, Armenian (cf. Adams 2013: 478). The prohibitive negation *mar* in Tocharian A is clearly an innovation, even if its origin remains disputed (cf. e.g., Pinault 2008: 621, Peyrot 2013: 414, fn. 14). However, this difference has significant typological repercussions, Tocharian A belonging to the large class of language where prohibitive clauses and negative assertive clauses are distinguished by some explicit morphosyntactic marker, and Tocharian B representing a different type of language, where prohibitive clauses and negative assertive clauses are distinguished on a primarily pragmatic basis.

3.7. *Celtic*

In this section, we examine prohibitive clauses in Old Irish. The Old Irish verbal system distinguishes five tenses (present, imperfect, preterit, perfect and future), two voice categories (active, passive) and four mood categories, indicative, subjunctive, imperative and conditional (cf. Thurneysen 1946, Stifter 2009: 88). Negation is primarily expressed through verbal prefixation in Old Irish and there are two sets of negative prefixes, one set, *nĭ-*, *nĭcon-*, being primarily used in assertive main clauses and another set, *nă-*, *năd-*, *năch-*, which is used with the imperative and in relative clauses (cf. e.g., Thurneysen 1946: 538-539, Meid 1962, Schmidt 1970, Ó hUiginn 1987)[29]. The following examples illustrate the use of the imperative in positive directive clauses (29ab) and the use of the assertive negation *nĭ-* as a prefix (29c) and as independent particle in sentence-initial position (29d)[30].

(29) a. *dumem* *se* *7* *deich*
protect.me:IMP.2SG NA CONJ avenge:IMP.2SG
tarm *chenn*
PRP:1SG ADV
'You protect me and also take vengeance for me!' (MI. 72d.11)

[29] Thurneysen (1946: 538) notes that the negative marker sometimes occurs independently of the verb in sentence-initial position, with an emphasis on the negative element.

[30] The examples from the Würzburg (Wb.) and Milan (Mi.) glosses generally follow Stokes & Strachan (1901) with some minor orthographic alterations to enhance readability. Examples from the *Lebor na hUidre* (LU) follow Best & Bergin (1929).

b. *tecmallid* *dia* *domnich* *beos*
collect:IMP.2PL day:GEN.SG Sunday:GEN ADV
arnap *trom* *lib*
CONJ_NEG_COP:PRS.SBJ.3SG heavy:NOM.SG PRP:2PL
a *tecmallad*
POSS.3PL collect:VBN
'Collect on the day of Sunday still so that their collection will not be heavy for you' (Wb. 14a.1)

c. *ni·denat* *firtu* *úili*
NEG-do:PRS.3PL miracle:ACC.PL all:NOM.PL
'All do not perform miracles.' (Wb. 12b20)

d. *ni* *do* *fessin* *dorat-side* *indocbáil*
NEG PRP RFL give:PRF.3SG-ANAPH:ACC.SG glory:ACC.SG
'Not to himself has he given this glory' (Wb. 23c17)

Thurneysen (1946: 539) notes that the negations *nă-*, *nă̆d*, *nă̆ch-* are used with the imperative, as illustrated in (30ab). However, he also observes that the so-called jussive subjunctive appears with the negations *nĭ-*, *nĭcon-*, the resulting clause having prohibitive function (cf. also Meid 1962, Schmidt 1970). The latter clause type is shown in (30cd).

(30) a. *na·ba* *thoirsech* *cia*
PROH-COP.IMP.2SG sorrowful:NOM.SG CONJ
beo-sa *hi* *carcair*
be:PRS.SBJ.1SG-NA PRP prison:DAT.SG
'Don't be sorrowful because I am in prison!' (Wb. 29d19)

b. *na·cuinged* *a* *thoil* *fessin*
PROH-seek:IMP.3SG POSS.3SG.M desire:ACC REFL.3SG.M
'He shall not seek his own desire!' (Wb. 11b18)

c. *ní* *dene* *chomgním*
NEG do:PRS.SBJ.2SG joint.action:ACC.SG
frisin *pecthach* *du* *chuingid*
PRP.DEF.ART.ACC.SG sinner:ACC.SG PRP seek:VN
comsóinmige *fris*
equal.prosperity:GEN.SG PRP.3SG.M
'Don't perform the same deed as the sinner to seek equal prosperity as him' (Mi. 56c15)

d. *ni·dérsid* *for* *sóiri*
NEG-leave:PRS.SBJ.2PL POSS.2PL freedom:ACC.SG
ar *fognam*
PRP servitude:DAT.SG
'Don't forsake your freedom for the sake of servitude' (Wb. 20b10)

The prohibitive clause type illustrated in (30ab) shows the same mood category as positive directive clauses and a different negation than the one used in negative assertive clauses. The type illustrated in (30cd) has a different mood category than positive directive clauses and the same negation as negative assertive clauses. Neither of these categories occur in neutral assertive clauses, thus firmly locating prohibitive clauses in the irrealis realm. Given our findings in previous sections, one would expect that this morphosyntactic distinction correlates with one or more semantic distinctions. According to Meid (1962), the prohibitive clauses with *nă̆-* and imperative have inhibitive function, whereas the type with *nĭ̆-* and subjunctive have preventive function (cf. also Schmidt 1970). The examples in (30) seem to be compatible with such a claim but they do not represent favourable evidence of the strongest possible kind, since the glosses usually consist of simple sentences with little or no contextual information. However, Meid (1962) provides examples like those cited in (31), where the distinction is more clearly observable.

(31) a. *Boí* *Cú Culainn* *immurgu* *oca*
be:PRT.3SG Cú Culainn:NOM ADV PRP.POSS.3SG
chluichiu *oc* *dul* *dochum* *in*
contest:DAT.SG PRP go:VN PRP DEF.ART
gillai *7* *lam* *Emire*
young.man:GEN CONJ hand:NOM.SG Emire:GEN
ingine *Forgaill* *tara* *brágaid*
girl:GEN.SG Forgail:GEN PRP.POSS.3SG neck:ACC.SG
'Ná *téig* *sís!'* *ol* *sí*
PROH go:IMP.2SG down say:PRT.3SG 3SG.F.NOM
'However, at his contest Cú Culainn was going towards the young man, Emire, the girl of Forgall's arm around his neck. "Don't go down there!", she said' (Aided Óenfir Aife 8.1-2)

b. *Óenfer* *rolá* *in* *gabuil*
one.man:NOM.SG put:PRF.3SG DEF.ART.ACC.SG fork:ACC.SG
cona *óen-láim* *7* *ní* *tessid*
PRP.POSS.3SG one-hand:DAT.SG CONJ NEG GO:PRS.SBJ.2PL
secce *conda-rala* *nech*
PRP.3SG.F.ACC CONJ.3SG.ACC-put:PRF.3SG INDF.NOM.SG
úaib *cona* *óen-láim*
PRP.2.PL.DAT PRP.POSS.3SG one-hand:DAT.SG
'One man has planted the fork with one hand and you shall not pass it until one of you has (likewise) planted it with one hand'
(Táin Bó Cúailnge [U] 4809-4810 after Strachan 1944: 24)

c. *ná* *hindis* *do* *neoch* *in*
PROH tell:IMP.2SG PRP INDF.DAT DEM.ART.ACC.SG
ní *atchonnacais*
INDF.SG see:PRT.2SG
'Don't tell anyone what you have seen!' (Ériu 11, 48, 13)

While these and similar examples provide clearer evidence of a distribution of the two types of prohibitive clauses based on the distinction between inhibitive and preventive clauses, Meid (1962: 163-164) notes that the type with the imperative and the negation *nă̆-* are not restricted to inhibitive contexts, as illustrated in (31c). On the other hand, judging by Meid's (1962) data and discussion, the type with *nĭ̆-* and the subjunctive seem to have consistently preventive meaning.

On the other hand, the type with the negation *nă̆-* and the imperative to be preferred with uncontrollable situations, as illustrated in example (30a) above and in the examples in (32)

(32) a. *na* *síreclaig* *de* *ar* *Día*
PROH fear:IMP.2SG PRP.3SG.N.DAT PRP God:ACC
'Don't fear it, for God's sake!' (LU 53a19)

b. *ná* *imdergthar* *imut*
PROH blush:PASS.3SG PRP.2SG.ACC
'Don't blush!' (lit. 'don't there be blushing at you!') (LU 10901)

Examples like these illustrate that uncontrollable predicates tendentially occur in prohibitive clauses with the imperative and *nă̆-* in Old Irish.

In this section we have seen that Old Irish has two types of prohibitive clauses, one with the negation *nă-* and the imperative, and another with the negation *nĭ-* and the subjunctive. The former type is characteristically associated with an inhibitive meaning, although it is not strictly limited to this reading. It also tends to be preferred when the predicate denotes an uncontrollable situation. Finally, prohibitive clauses generally do not select the indicative in Old Irish.

4. *Discussion*

In the previous subsections, we have examined prohibitive clauses, that is, negative directive clauses in representative languages from seven different branches of the Indo-European linguistic family, classifying them according to three pairs of parameters.

The first parameters concern whether prohibitive clauses have the same negation as assertive clauses, and whether prohibitive clauses select the same verb category as positive directive clauses. This results in a typology with four classes of prohibitive sentences, all of which are attested in the languages under scrutiny. While there is considerable variation as to the exact form of prohibitive clauses across these languages, the typology introduced at the beginning of this paper allows for classifying them in a restricted number of types. The results of our survey are given in Table 6.

	Same negation		Same verb form	
	Yes	No	Yes	No
Hittite		X	X	X
Vedic Sanskrit		X		X
Homeric Greek		X	X	X
Early Latin		X	X	X
Gothic	X		X	X
Tocharian A		X		X
Tocharian B	X			X
Old Irish	X	X	X	X

Table 6. Prohibitive clauses across some Indo-European branches (I).

Another parameter concerns whether prohibitive clauses employ the neutral assertive mood category or not. Among the languages scrutinised here, only Hittite and Tocharian have prohibitive clauses with default assertive mood forms, although both also show alternative patterns. Table 7 includes these values.

	Same negation		Same verb form		Non-indicative mood only	
	Yes	No	Yes	No	Yes	No
Hittite		X	X	X		X
Vedic Sanskrit		X		X	X	
Homeric Greek		X	X	X	X	
Early Latin		X	X	X	X	
Gothic	X		X	X	X	
Tocharian A		X		X		X
Tocharian B	X			X		X
Old Irish	X	X	X	X	X	

Table 7. Prohibitive clauses across some Indo-European branches (II).

A further parameter concerns the distinction between controllable and uncontrollable situations. When two or more mood categories are used, one often sees a tendency that some mood form occurs when the predicate denotes an uncontrollable situation. In Hittite, Homeric Greek, Latin, Gothic, Tocharian, and Old Irish such predicates tendentially co-occur with the imperative in prohibitive clauses. Vedic stands out here, almost exclusively selecting the injunctive in prohibitive clauses and not showing any consistent patterns of variation in the domain of morphological mood. Intriguingly, however, the only example of an imperative form in a prohibitive clause involves such a predicate, namely *hṛṇītām* in example (13a). As we have seen, there is a tendency across all the languages in our sample to distinguish formally between inhibitive and preventive prohibitive clauses, and the former type of clause tends to contain an imperative in Homeric Greek, Early Latin, Gothic, and Old Irish (cf. e.g., Ammann 1929, Meid 1962, Streitberg 1981). In Section 2, uncontrollable predicates were defined

as predicates that seem odd in positive directive clauses and verbs denoting bodily and mental states were identified as core members of this class. The apparent preference of such predicates for the present imperative clearly is connected with its inhibitive function. Specifically, it is reasonable to assume that negated directive clauses with uncontrollable predicates in most cases are used to exhort the addressee to discontinue an ongoing state of being angry, being sad, crying etc. We therefore make a distinction between languages tendentially selecting the imperative with uncontrollable predicates and languages that do not have this property. Table 8 summarises the properties of prohibitive clauses in the languages under considerations.

	Same negation		Same verb form		Non-indicative mood only		Imperative with uncontrollable predicates	
	Yes	No	Yes	No	Yes	No	Yes	No
Hittite		X	X	X		X	X	
Vedic Sanskrit		X		X	X			X
Homeric Greek		X	X	X	X		X	
Early Latin		X	X	X	X		X	
Gothic	X		X	X	X		X	
Tocharian A		X		X		X		X
Tocharian B	X			X		X		X
Old Irish	X	X	X	X	X		X	

Table 8. Prohibitive clauses across some Indo-European branches (III).

The survey in Table 8 illustrates the considerable variation regarding the formal and functional differentiation of prohibitive clauses in the Indo-European linguistic family. These observations raise the question what the original system looked like. In Section 2 we noted that directive clauses represent an area of morphosyntax which is particularly prone to change (cf. also Mauri & Sansò 2011: 3489). This tendency has also been observed in several of the languages under examination, perhaps most notably in Early Latin, where there is an incipient grammaticalization of

the imperative forms *noli* and *caue* as prohibitive markers. These considerations suggest that the reconstruction of the Core IE and PIE system of prohibitive clauses may be beyond the limits of the possible. According to the mainstream view, the system found in Early Vedic, with the prohibitive marker *mā́* and the injunctive mood, reflects the PIE and/or Core IE situation (cf. e.g., Delbrück 1897). This assumption entails that the other systems result from independent developments in the different branches (cf. e.g., Delbrück 1897, Ammann 1927, Meid 1962, Tichy 2006: 99 etc.). Based on the data examined in this paper, this would imply that five of the seven languages in our sample have secondarily come to select the imperative as one of the mood categories in prohibitive clauses, a point we shall return to shortly. It should be noted, however, that the traditional hypothesis is not based on comparative reconstruction but on the more general hypothesis that Vedic Sanskrit has particularly archaic morphosyntactic features. In the present context, one immediate problem with this assumption is that the Vedic system of prohibitive clauses has a suspiciously tidy and unitary character compared with the other languages examined here. This particularly concerns the regularity with which the injunctive appears in prohibitive clauses which might well reflect a secondary reorganisation of the system. The prohibitive negation *mā́*, on the other hand, may at least be reconstructed for the Core IE level, given that it has cognates in Greek *mḗ* and Tocharian AB *mā*, as well as the prohibitive markers in Armenian *mi* and Albanian *mos*. Since all the languages scrutinized except Gothic and Tocharian B have both an assertive and a prohibitive negation, we conclude that this is an inherited feature and adopt the generally accepted reconstruction of the prohibitive negation as **méh$_1$* for Core IE (cf. also Tichy 2006: 99). According to Oettinger (1979: 497), the prohibitive marker is a fossilized imperative of a verbal root **meh$_1$* 'prevent, hold back' (cf. also Kloekhorst 2008: 581-582). As noted by van der Auwera (2006, 2010) prohibitive markers in many languages originate from verbal predicates with this type of meaning, confirming the typological plausibility of Oettinger's (1979) hypothesis. As regards the situation in PIE, we note that Hittite has a prohibitive marker *lē* that cannot originate from the same source as **méh$_1$*. Various hypotheses have been proposed to account for Hittite *lē* (cf. Kloekhorst 2008: 523 for a survey). According to one view, the Hittite prohibitive

marker originates from an imperative form of the Hittite verb *lāⁱ-* 'let, loosen', thus reflecting an inner-Hittite development (cf. e.g., Kloekhorst 2008: 523)[31]. This hypothesis has the advantage of being typologically plausible but has limited explanatory potential. A different hypothesis assumes that *lē* has developed from the negation **nē* through nasal dissimilation in contexts where it was followed by the modal particle *man*, the first-person singular pronoun *mu* and similar combinations (cf. Friedrich 1936-37,;Oettinger 1994). Under this analysis, sequences such as **nē man*, **nē mu* developed into *lē man*, *lē mu*, from which the form *lē* spread. A parallel case is the Hittite noun *lāman* 'name', which originates from **nāman*, cf. Vedic *nā́man*, Greek *ónoma*, Latin *nomen* etc. This hypothesis is supported by the fact that the other Anatolian languages employ negation markers with initial *n-* in prohibitive clauses, cf. Luwian *nīš-*, Palaic *nī(t)*, Lycian *ni* etc. (cf. Carruba 1970, 1972; Melchert 2003; Kloekhorst 2008: 597). Moreover, it allows for directly comparing the Hittite prohibitive marker with the Latin prohibitive negation *nē*, being suggestive of a PIE situation where different variants of the negation **nḗ* were employed in negative assertive and negative directive clauses. Under this analysis, the emphatic, long-vowel form would be preferred in prohibitive clauses while the reduced, short-vowel form primarily appeared in negative assertions. We have also seen that all the languages under consideration have prohibitive clauses showing different mood forms than the imperative. It therefore seems justified to reconstruct this as a feature of the Core IE and PIE system of prohibitive clauses. However, in most of the languages we observed systematic alternation in prohibitive clauses between the imperative and one or more other mood forms. Thus, a case could be made for the hypothesis that this was a feature of Core IE and/or PIE as well. This would concord with the observation that Hittite seems to have had this kind of alternation early in its history and that Luwian also show this alternation pattern. Thus, we tentatively reconstruct a prohibitive clause system for Core IE with two complementary types, one characterised by the prohibitive negation **mḗ* and an imperative or non-imperative form and another characterised by the

[31] This form has an exact parallel in the Old High German imperative form *lā* from the verb *lâzan* 'let' which is ultimately connected with Hittite *lāⁱ* (cf. e.g., Kloekhorst 2008: 523).

prohibitive negation **nḗ* and an imperative or non-imperative form. For PIE only the latter type is reconstructed.

This scenario involves a development from a system where prohibitive clauses employed a negation that was rather like the one used in assertive clauses to a system where the prohibitive negation was clearly distinct from the assertive negation. This raises the question whether this kind of development is typologically plausible. van der Auwera *et al.*'s (2013b) survey of prohibitive clauses across languages provides important data for addressing this problem. The data are summarized in Table 9.

		NEGATION (Compared to assertive clauses)	
		Same	Different
VERB FORM (Compared to positive directive clauses)	Same	113 (22,8%)	182 (36,7%)
	Different	55 (11,1%)	146 (29,4%)

Table 9: Cross-linguistic distribution of prohibitive clauses.

These data show that the relative frequency of the different types of prohibitive clause differs considerably across languages. The most frequent type is the one with a different negation than assertive clauses and the same verb form as positive directive clauses. The least frequent type is the one with the same negation as assertive clauses and a different verb form than positive directive clauses. We take cross-linguistic distribution patterns to be indicative of relative typological preference, which in turn is the basis for typological plausibility in reconstruction. For example, it would seem a priori unlikely that a pattern of the most frequent and hence apparently most preferred type has been replaced by a pattern of the least preferred type but not the other way around. However, the raw numbers do not tell us whether the distributional differences are significant or due to chance. To establish this, we performed a chi-square test of the data in Table 9. The chi-square test compares the observed frequencies with the expected frequencies, that is, the frequencies that would obtain if the data were distributed evenly. The more the observed frequencies resemble the expected frequencies,

the greater the probability that the difference is due to chance. In the present context, this tells us what the chances are that we would get the unbalanced distribution in Table 9 if there were no association between the negation type and the type of verb form. This is the null hypothesis of no association. We adhere to the conventional significance level of 0.05 and any probability value below that level is considered significant. The chi-square test yielded a p-value of 0.02 and a chi-square value of 5.9108 with one degree of freedom (p-value = 0.02 $\chi^2(1) = 5.9108$)[32]. Since the p-value is below the significance level, we may discard the null hypothesis and conclude that the observed differences are significant. The Cramér's V value is 0.114[33], indicating a rather weak association between the negation type and type of verb form. These considerations suggest that the distribution shown in Table 9 is not random.

The method outlined in Janda *et al.* (2013) allows for exploring this hypothesis in more detail. First, we need to establish to what extent the observed distribution of data given in Table 9 deviates from their expected distribution. These are given in Table 10[34].

		NEGATION (Compared to assertive clauses)	
		Same	Different
VERB FORM (Compared to positive directive clauses)	Same	[+] 99.9	[-] 195.1
	Different	[-] 68.1	[+] 132.9

Table 10. Expected cross-linguistic distribution of prohibitive sentences.

Recall that expected frequencies are the frequencies that would obtain if the data were distributed evenly[35]. A comparison between Ta-

[32] These values were obtained by means of the chisq.test() function in the standard package of R (R core team 2022).

[33] This value was obtained by means of the assocstats() function in the additional vcd package of R (Meyer *et al.* 2023).

[34] These values were obtained by means of the chisq.test()$expected function in the standard package of R (R core team 2022).

[35] The expected frequency of a cell is calculated by multiplying the row sum with the column sum and dividing the product with the total sum.

ble 9 and Table 10 shows that the observed values are greater than the expected values in the case of prohibitive clauses with same negation and same form and clauses with different negation and different form. This means that these two types of prohibitive clauses appear more frequently than expected in the data. In such cases, the prohibitive clauses are said to show attraction towards these two types. In contrast, the clause types with different negation and same verb form and same negation and different verb form show a lower observed frequency than expected. Accordingly, prohibitive clauses are said to show repulsion towards these two types.

We assume that relative attraction and repulsion give a more accurate indication of typological preference than relative proportions, given in Table 9. To establish whether the differences between observed and expected values are significant, we apply the Fisher exact test to each of the cells[36]. This enables an assessment of whether the patterns of attraction and repulsion are statistically significant, that is, below the conventional level of 0.05[37]. The results are given in Table 11.

		NEGATION (Compared to assertive clauses)	
		Same	Different
VERB FORM (Compared to positive directive clauses)	Same	[+]0.007254	[-]0.007254
	Different	[-]0.007254	[+]0.007254

Table 11. Relative attraction and repulsion towards different types of prohibitive clauses.

[36] This procedure involves several steps. First, one creates a 2x2 contingency table, where the upper left cell comprises the observed cell frequency (e.g., 113, as in the upper left cell in Table 9), the upper right cell comprises the row total minus the observed cell frequency (i.e., 295 – 113 = 182), the bottom left cell comprises the column total minus the observed cell frequency (i.e., 168 – 113 = 55) and the bottom right cell comprises the table total minus the values in the three other cells (i.e., 496 – 113 – 182 – 55 = 146). When applying the Fisher test, it is necessary to specify whether the observed value (in Table 9) is greater or less than the expected value given (in Table 10).

[37] These values were obtained by means of the fisher.test() function in the standard package of R, specifying whether the observed value is greater or less than the expected value (R core team 2022).

The results given in Table 11 shows that there is a significant cross-linguistic tendency to prefer two types of prohibitive clauses, namely those with the same negation as assertive clauses and the same verb category as positive directive clauses, or those with a different negation than assertive clauses and a different verb category than positive directive clauses. On the other hand, there is a significant repulsion against the two other types of prohibitive clauses, showing different negation and same verb form or same negation and different verb form.

These findings show that there is a typological preference towards two of the clause types, whereas the two other types tend not to be preferred. In the context of the previous discussion, this implies that typologically plausible reconstruction would involve change from a dispreferred pattern to a preferred pattern but not the other way around. Above we suggested that Core IE and PIE prohibitive clauses were compatible with non-imperative mood categories and that the prohibitive negation found in PIE was almost identical to the assertive negation, whereas the Core IE negation was markedly different from the assertive negation. This implies a change from a system where prohibitive clauses had the same negation as assertive clauses and a different mood category than positive directive clauses to a system with different negation than assertive clauses and a different mood category than positive directive clauses. As shown in Table 11, there is significant repulsion towards the former type and significant attraction towards the latter type. Thus, we may conclude that this reconstruction is typologically plausible. Similar considerations apply to the observation that the suspiciously tidy Vedic system of prohibitive clauses represents one of the cross-linguistically preferred types. It is therefore a priori unlikely that it should be replaced by a system of the type found in Homeric Greek, where one of the patterns instantiates the typologically dispreferred type with a different negation than assertive clauses and the same verb form as positive directive clauses. A last point concerns the question whether Core IE and PIE had prohibitive clauses with the imperative. The reconstruction of the PIE system of prohibitives involves a negation strongly resembling the

assertive negation. This type of negation shows significant attraction towards the mood category used in positive directive clauses and it is therefore likely that the imperative was in the process of replacing the non-imperative mood in prohibitive clauses already in PIE. This is reflected in some marginal attestations of prohibitive clauses with the imperative in Hittite and Luwian but also in Early Latin where the construction has survived. These observations suffice to show that the method proposed here enables a fairly accurate assessment of the notion of typological plausibility in reconstruction.

5. *Conclusion*

This paper examined prohibitive clauses in a selection of branches of the Indo-European family. Compared with positive directive clauses, which are relatively unitary, prohibitive clauses show considerable variation and may preliminarily be classified into four distinct types, differing along two dimensions: negation and verb form. There is often competition between two or more types of prohibitive clauses, often involving systematic functional distinctions. An important distinction is made between so-called inhibitive and preventive clauses, expressing an exhortation regarding ongoing and future situations respectively (cf. e.g., Ammann 1927, Meid 1962, Hoffmann 1967, Hollenbaugh 2020). Another dimension concerns whether languages are permissive with respect to the use of the neutral assertive mood categories in prohibitive clauses (cf. e.g., Mauri & Sansò 2011, 2012). A further parameter involves the distribution of predicates denoting controllable and uncontrollable predicates. We have seen that in spite of apparent differences between the languages in our sample, there are several points of convergence as well. This allows for reconstructing the prohibitive clause systems at two prehistoric levels, Core IE having a special prohibitive negation **mḗ* and an alternation between the imperative and a non-imperative mood form, and PIE having a negation **nḗ* that could be used in assertive and directive clauses alike and the imperative and some non-imperative form. Drawing on a statistical

analysis of the cross-linguistic data presented in van der Auwera *et al.* (2013b), we argued that the hypothesis that a system of the type found in Core IE replaced the PIE system is typologically plausible.

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