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TYPES OF RELATIVIZATION AND RELATIVE HEADS IN THE SABELLIC LANGUAGES*

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Abstract This paper offers a novel analysis of the formal morphological and syntactic features of the Sabellic languages. We show that Sabellic correlatives align syntactically with other Indo-European branches in terms of headedness and the use of relative pronouns. Our main contribution is that Sabellic correlatives are base generated in the left periphery. Additionally, we compare the semantics of the relative pronouns in the Sabellic languages and Latin. Unlike Latin, where pronouns derived from *k^{w}*ó*- can refer to both animate and inanimate referents, the Sabellic languages restrict their use to animate referents in free relative clauses. Finally, we find that Sabellic languages counterexemplify a proposed universal of relative clauses, which claims that languages with relative pronouns do not have internally-headed relative clauses. This demonstrates a broader diversity in Sabellic relative clause formation than previously assumed.

1 Introduction

Like other Indo-European languages, the Sabellic languages have relative clauses and correlative clauses, both of which can be headed or free. Furthermore, relative clauses can be either postnominal or right-extraposed.[1] Relative clauses of old Indo-European languages have been widely discussed in the literature, e.g. Hale (1988) for Old Persian, Benucci (1996) and Dupraz (2009) for the Sabellic languages, Probert (2015) for Ancient Greek, Pompei (2011) and Pinkster (2021) for Latin, and Ram-Prasad (2023) for Proto-

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1 Various scholars offer various classifications, but here we will restrict ourselves to just these subtypes.

Indo-European and several daughter branches. Nevertheless, correlatives in the Sabellic languages and other Indo-European branches are not well understood and are often only superficially analyzed.

Dupraz (2009) offers the most detailed discussion of relative clauses in the Sabellic languages, arguing that Oscan and Umbrian have different relativization strategies. Dupraz argues that Oscan has a syntactic distinction between clauses that have the relative pronoun with base *k^{w}*ó*- and the ones that have relative pronouns with base *k^{w}*í*-; he claims that the former are used in adnominal relative clauses, while the later are used in free relative clauses. Dupraz also argues that Umbrian introduces a semantic distinction between the two types of relative pronoun: *k^{w}*ó*- for relative clauses (RCs) with specific denotation and *k^{w}*í*- for RCs with generic meaning. We show that these claims do not hold up under our analysis, since we can find counterexamples for both claims in Oscan (e.g. Oscan: Lu 1, 9) and in Umbrian (e.g. Umbrian: Va 7). We show that there is no distinction between Oscan and Umbrian in terms of relativization strategies, i.e. the Sabellic languages have the same syntactic and semantic patterns, but we show that there is a slight difference in the usage of the relative pronouns *k^{w}*ó*- and *k^{w}*í*-.

1.1 The Sabellic Languages

The Sabellic languages were an Italic subgroup of the Indo-European family, attested from the 7th c. BCE to 1st c. AD. in central and southern Italy. These Sabellic languages were divided into the Oscan group, the Umbrian group, and the South Picene group. The Oscan group consists of Oscan, Paelignian, Marrucinian, Vestinian, and Hernican; the Umbrian group consists of Umbrian, Aequian, Marsian, and Volscian; and the South Picene group consists of South Picene and Pre-Samnite (Wallace 2007: 1).

Oscan and Umbrian are the better attested Sabellic languages, and for that reason, most of the data of this paper comes from those two languages. There is a short subsection 5 about South Picene, but the data is too scanty to weigh on the general discussion of relative clauses in the Sabellic languages.

Furthermore, the Sabellic forms in italic and bold refer traditionally to the alphabet in which the texts are written: italic refers to texts written in the Latin alphabet, and bold refers to texts written in the so-called national alphabets, which are scripts derived directly from the Etruscan alphabet, with slight differences between Oscan, Umbrian, and South Picene.

1.2 *Relative pronoun and relative adverb*

Table 1 presents the attested pronouns in relative clauses in the Sabellic languages derived from the PIE base *k^{w}*ó*-[2], and Table 2 those derived from the PIE base *k^{w}*í*-.[3]

	Masculine	Feminine	Neuter
NOM.SG	Umb. *poi, poe, poei*, Osc. **pui**	Osc. *pae, paei, pai, paí*	Osc. **púd**
GEN.SG	Osc. **púiieh**	—	—
DAT.SG	Umb. **pusme**, SP **posmúi**	—	—
ACC.SG	—	Osc. **paam**, **pam**	Osc. *pod*, Umb. *porse*
ABL.SG	—	Osc. *poizad*, *pora*	—
NOM.PL	Umb. **puře**, *puri*, Osc. **pús**	Osc. **pas**, *pas*	Osc. **paí**
ACC.PL	—	Umb. *pafe*	Osc. **pai**

Table 1: Relative pronouns of base *k^{w}*ó*- in Sabellic

	Masculine/Feminine	Neuter
NOM.SG	Umb. **pisi**, *pisi*, Osc. **pís, pis**, *pis*, *pis*	Umb. **pire**, Osc. **píd**
GEN.SG	Osc. *pieis-um*	—
DAT.SG	Osc. *piei*	—
ACC.SG	Osc. *phim*	Osc. **píd, pid**, Umb. *pirse*, **piře**, SP *pim*
ABL.SG	—	—
ACC.PL	Umb. *pifi*	—

Table 2: Relative pronouns of base *k^{w}*í*- in Sabellic

As shown in the tables above, there are more forms of relative pronouns with the stem *k^{w}*ó*- attested in the plural. One might even argue that the Sabellic languages did not use relative pronouns with the stem *k^{w}*í*- to mark plurality, but since Umb. *pifi* (ACC.PL) is attested, we can conclude that both forms were used in the singular and plural.

2 The dubious form Osc. **pui** in Cp 37 is usually interpreted as indefinite pronoun in the dative.
3 Adapted from Buck (1928: 145).

Here is an example of a declined form in a relative clause:[4]

(1) [**damsennias** [$_{RC}$ **pas** **fiíet**
damothoiniai.NOM.PL.F which.NOM.PL.F take_place.3PL.PRS
pústreí. **iúkleí** **vehiianasúm**]]
next.LOC.SG.M day.LOC.SG.M vehianae.GEN.PL.F
'(the occasion is) the *damothoiniai*, which take place on the day after the Vehianae' (Oscan: Cp 33, 34)

Some pronominal forms can also be used as morphologically indeclinable relative pronouns:

> "A form *porsi, porse, porsei*, which occurs in place of certain case-forms, e.g. nom. sg. m. (VIa 6,9, etc.), nom. pl. n. (VIa 15, 19), acc. pl. n. (VIb 40), although usually explained in various ways, is best taken as the conjuntion (cf. **puř-e** IIa 26), used loosely as a sort of indeclinable relative." (Buck 1928: 145).

Following this morphological explanation, we gloss these forms only as INDECL (cf. Untermann 2000: 592), e.g.:

(2) *serse* *subra spahatu* *enom.* [*uaso.*
sitting there throw.over:IMP;3SG then vessel:ACC;PL;N

[$_{RC}$ *porse.* *pesondris-co.* *habus.*]]
which:INDECL pesondra:ABL;PL;N:POSP take:FUT.PRF;3SG

'Then, sitting, he will have kept thrown over (his head) the vessels which he will have kept with the *persondra*.' (Umbrian: VIb 40)

To our knowledge, the only relative adverb in the Sabellic languages is *puf*(*e*) 'where', e.g.:

(3) [*uerfale.* [$_{RC}$ *pufe.* *arsfertur.* *trebeit.* *ocrer.*
place:NOM;SG;N where priest:NOM;SG;M stay:PRS;3SG city:GEN;SG;M
peihaner.]] *erse* *stahmito*
purify.GER;GEN;SG;M in.this.way agree:PST.PTCP;NOM;SG;N
eso *tuderato est.*
that:NOM;SG;N determine:PRF;PASS;3SG

4 The Sabellic examples are from Rix (2002) and Crawford et al. (2011). Oscan translations are from Crawford et al. (2011) and Umbrian translations are from Poultney (1959), except when noted otherwise. All forms and their morphological details were also double checked in Untermann (2000).

'The space where the priest of the sacrifice stays for the purification of the city, when established is bounded in this way.' (Umbrian: VIa 8)

1.3 Goals

Given the gaps in previous works, we still need a more detailed analysis for Sabellic relative clauses. We propose such an analysis within the general framework of generative syntax. In this paper, we aim to show two main points:

i. There is no difference between Oscan and Umbrian relative clauses. Both **k*^{w}*ó-* and **k*^{w}*í-* can be used in adnominal relative clauses and there is no syntactic/semantic distinction between these two forms. In free relative clauses, both forms can be used, but there is a distinction: **k*^{w}*ó-* introduces only animate free relative clauses (meaning 'who'), while **k*^{w}*í-* introduces only inanimate free relative clauses (meaning 'which').

ii. The Sabellic languages have base generated correlatives.

The structure of the paper is as follows: in Section 2: Types, we introduce the types of relativization, and focus on free relatives and correlatives; in Section 3: Headedness, we focus on whether a relative is internally or externally headed; in Section 4: Innovative Free Relative Clause, we discuss the relative pronoun distribution in Sabellic and its innovative usage in free relatives; in Section 5: Unusual Types in South Picene, we present the few relative clauses attested in South Picene; and in Section 6: Comparison with other Indo-European languages, we compare the Sabellic data with other Indo-European languages, in particular Latin, Vedic, Hindi, and Hittite.

2 Types

Although some scholars group relatives and correlatives together (see Cinque 2020: 1, de Vries 2005, we will treat them separately, because we argue that the correlative clause in Sabellic is base generated in the left periphery of the host clause, rather than generated in a lower position in the host clause, the adjunct position of the correlate, for example, and then moved to a "preposed" position.[5] In this paper, we analyze relative clauses and correlative clauses as

5 We use the term "host clause" rather than "main clause" (e.g. Pankau 2018).

two types of relativization.[6]

2.1 *Relative clause*

The most common type of relative clauses in English and in other Standard Average European (cf. Haspelmath 1998) is the post-nominal relative clause, where the relative clause follows the noun phrase which it modifies. For example, in English:

(4) *I gave the* [*book* [$_{CP}$ *that Alex bought*]] *to Bill.*

The same structure exists in the Sabellic languages, e.g. *porsei* (< *k^{w}ó-):

(5) *hondra.* [*esto* *tudero.* [$_{RC}$ *porsei.* *subra.*
below these:ACC;PL;N limit:ACC;PL;N which:INDECL above
screihtor. *sent.*]] *parfa.*
describe:PASS.PTCP;NOM;PL;N COP.PRS;3PL *parfa*.ACC;SG;F
dersua. *curnaco.* *dersua.* *seritu.*
western:ACC;SG;F crow:ACC;SG western:ACC;SG;F watch:IMP;3SG
'Below these limits which have been described above, watch for a *parfa*-bird in the west, a crow in the west.' (Umbrian: VIa 15)

In this example, the relative clause *porsei subra screihtor sent* directly follows its head noun *tudero* 'limits', so this is an example of post-nominal relative clause.

Relative clauses can also appear to the right of the host clause, which is called a right extraposed relative clause. For instance, in English:

(6) *No man is a failure* [$_{CP}$ *who has friends*].

Such examples are also found in the Sabellic languages:

(7) *eite.* *uus.* *pritrom-e* *pacris* [$_{RC}$
go:IMP;2PL you:NOM;PL pritrom:ACC;SG;N:POST peace:ABL;SG;M
puus. *ecic* / *lexe.* *lifar.*]
who:NOM;PL;M this:ACC;SG;N read:PRF;2PL inscription:ACC;SG
'Go into *pritrom*, peaceful, you (PL.) who have read the inscription.' (Paelignian: Pg 9, 6-7)

Relative clauses in most old Indo-European languages, including the Sabellic languages, can modify pronouns. In this example, the head pronoun *uus*

6 Sabellic probably also had an adverbial relative clause pattern just like Latin (Pinkster 2021: 287–8), but there is only one possible example attested, which we put in Appendix B.

'you' is in the host clause; the relative clause with the relative pronoun *puus* is to the right of the host clause. The relative clause is modifying the pronoun *uus* 'you' in the host clause, because the verb in the relative clause *lexe* 'you read' agrees with the head pronoun. The relative clause is not immediately following the lexical head *uus*, hence it is a right-extraposed relative clause.

2.2 *Correlatives*

The correlative construction has been defined in different ways. We follow Srivastav (1991) and de Vries (2005), and use the correlative to denote the construction that consists of a correlative clause on the left, introduced by a relative pronoun, and a host clause to the right.[7] Definitions by other scholars include the structure where the host clause precedes the correlative clause (cf. Hettrich 1988), which we do not follow due to syntactic reasons (cf. section 6.3).

Under our definition, there are 6 examples of correlative clauses: VIIa 52, Lu1 7, Po 3, Va 3-4, Va 7, and VIa 19. (Cases not cited in the paper can be found in Appendix A). A noticeable feature of Sabellic correlatives is that the first word in the host clause is always a demonstrative pronoun coindexed with the pronoun introducing the correlative clause: *eaf* (Umbrian: VIIa 52), *izic* (Oscan: Lu1 7), **eísak** (Oscan: Po 3), **ere** (Umbrian: Va 3-4), **eru** (Umbrian: Va 7), *eo* (Umbrian: VIa 19).

The Umbrian example below is a typical correlative clause:

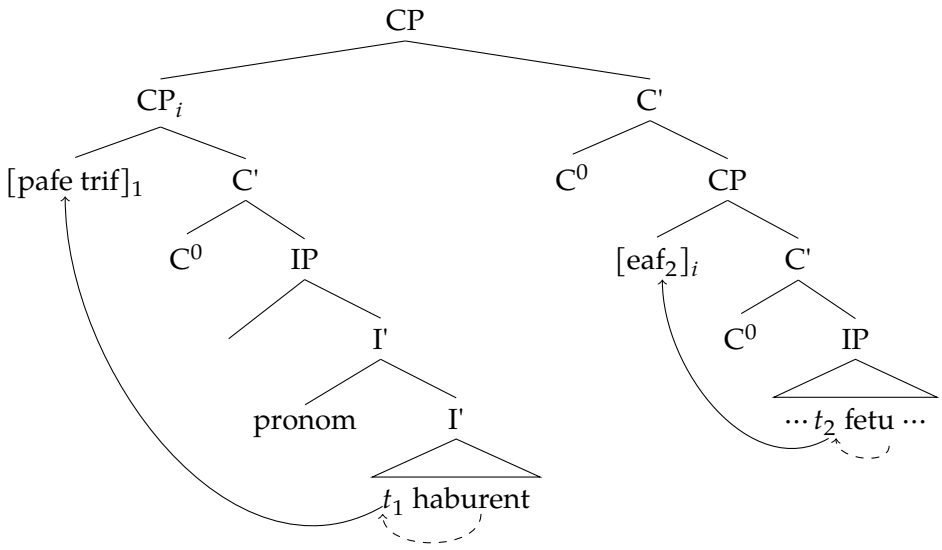
(8) [$_{CorC}$ *pafe.* *trif.* *promom.* *haburent.*]
which:ACC;PL;F three:ACC;PL;F first catch:FUT.PRF;3PL
eaf. *acersoni-em* *fetu.* *turse.*
these:ACC;PL;F Acedonia:LOC:POST sacrifice:FUT.IMP;3SG Tursa:DAT;SG;F
iouie. *popluper.* *totar.* *iiouinar.*
Jovia:DAT;SG;F people:ABL;PL;M state:GEN;SG;F Iguvine:GEN;SG;F
totaper. *iouina.*
state:ABL;SG;F Iguvine:ABL;SG;F
'Whichever three they will have caught first, these he (the *adfertor*) shall sacrifice at Acedonia to Tursa Jovia for the people of the state of Iguvium, for the state of Iguvium.' (Umbrian: VIIa 52-53)

The relative pronoun *pafe* is in the accusative case, assigned by the verb *habu-*

7 Different terminologies are used in the literature for these two clauses, such as relative/correlative clauses, relative/main clauses, relative/correlate clauses, relative/host clauses etc. In this paper, we call the initial clause the "correlative clause", and the other the "host clause".

rent.[8] The demonstrative pronoun *eaf* is also in the accusative case, assigned by the main verb *fetu*, and it is coindexed with the internal head *trif*. Therefore, this is a correlative structure. The syntactic tree is illustrated in (9).[9]

(9)



3 Headedness

As discussed in Section 2: Types, we consider relative clauses and correlative clauses the two major types of relativization. We can use headedness as a factor to further classify these two major types. In de Vries (2005)'s classification, in addition to correlative clauses, the other types of relative clauses include prenominal relative clauses, postnominal relative clauses, and internally headed relative clauses.[10] This classification is based on the relative position of the head noun and the relative clause. Both prenominal and postnominal relative clauses have the head noun outside the relative clause; hence they are externally headed. There are no prenominal relative clauses in Sabellic, which means that all externally headed relative clauses are postnominal.

8 We use Case theory along the lines of Chomsky (1995).

9 The solid arrows as in $t_n \rightarrow$ X denote the syntactic movement of X from the trace t_n; the dashed arrows as in X $\dashrightarrow$ Y denote that X assigns Case to Y. The subscripted Arabic numerals are reserved for movements, and subscripted letters such as *i* or *j* are used to indicate coindexation between the correlative clauses and the correlates.

10 de Vries (2005) employs the term "circumnominal (head-internal) relative clause", which is the same as internally headed relative clause.

In this paper, the notion of an externally headed relative clause is therefore equivalent to a postnominal relative clause.

Since postnominal externally headed relative clauses and internally headed relative clauses are classified based on their surface distribution of elements, we can denote the linear structure of these two types with the following configurations:

Externally headed:

If a NP X in a sentence $[_{\text{IP}} \cdots \text{X} \cdots]$ is relativized externally, the configuration is:

$$[_{\text{NP}} \text{X} [_{\text{CP}} \text{RelPrn} [_{\text{IP}} \cdots t_i \cdots]]]$$

Internally headed:

In Sabellic, contrary to de Vries (2005)'s universals, there is one example in which the relative pronoun co-occurs with the internally headed relative clause under our analysis.[11] The relative pronoun precedes the whole relative clause, with the relativized NP *in situ*. Thus, if a NP X is relativized internally, the configuration is:

$$[_{\text{CP}} \text{RelPrn} [_{\text{IP}} \cdots \text{X} \cdots]]$$

Free relative:

If there is no overt head noun, the relative clause is a free relative clause. In the Sabellic languages, both relative clauses and correlative clauses can be free.

Double headed:

Double headed relative clauses are relative clauses which have both an external head outside the relative clause, and an internal head *in situ*. Such clauses can be found in languages like Japanese:

(10) *Junya-wa* $[_{DHRC}$ *Ayaka-ga ringo-o mui-ta sono-ringo*]*-o*
Junya:TOP Ayaka:ACC apples:ACC peel:PST those.apples:ACC
tabe-ta.
eat:PST
'Junya ate those apples that Ayaka peeled.' (lit. 'Junya ate [those apples that Ayaka peeled apples].') (Erlewine & Gould 2016)

11 de Vries (2005: 154) summarizes 15 universals (a. to o.) for relative clauses. Universal k. claims: "Relative pronouns and resumptive pronouns cannot be used in circumnominal relative constructions."

There are two Sabellic examples in which the lexical heads overtly appear in both the (cor)relative clause and the host clause. However, since the head nouns in the (cor)relative clauses are moved, they are different from the Japanese-style double headed relative clauses, like example (10), where the internal head is *in situ*. We call these two Sabellic examples "double headed" relative clause in this paper, and we will discuss this topic in more detail in Subsection 3.4: Double Headed.

3.1 Internally headed

Internally headed (cor)relative clauses have an overt lexical head in the (cor)relative clause and the case of the lexical head is assigned in the (cor)relative clause.

Here is an example of an internally headed relative clause:[12]

(11) [$_{RC}$ *pis.* *pocapi{.}t.* *post.* *exac.*
which:NOM;SG;N ever hereafter this:LOC;SG;N
comono. *hafie{i}st.* *meddis.* *dat.*
assembly:ACC;PL;N hold:FUT;3SG *meddix*:NOM;SG;M about
castrid. *loufir.* *en.* *eituas.*] *factud.* *p{o}us.*
goods:ABL;SG;N or in money:GEN;SG;F do:IMP;3SG that
touto. *deiuatu{n}s.* *tanginom.* *deicans.*
people:NOM;PL;F swear:PTCP;NOM;M opinion:ACC;SG;F say:PRS;SUBJ;3PL
siom. *dat.* *eiza(i)sc.* *idic.* *tangineis.* *deicum.*
they about these:ABL;PL;F this:ACC;SG;F opinion:GEN;SG;F say:INF
pod. *ualaemon.* *touticom.* *tadait.* *ezum.*
which:ACC;SG;N best:ACC;SG;N public:ACC;SG;F seem:PRS;SUBJ;3SG be:INF
nep. *fefacid.* *pod.* *pis.* *dat.* *eizac.*
not make:PRF;SUBJ;3SG that anyone:NOM;SG;M about this:ABL;SG;F
egmad. *min{s}* *deiuaid.* *dolud.*
thing:ABL;SG;F less swear:PRS;SUBJ;3SG deceit:ABL;SG;M
malud.
wrongful:ABL;SG;M

'Whichever *meddix* shall hereafter hold an assembly concerning goods or money, he is to see that the people should pronounce an opinion under oath that they should pronounce this opinion about them, which seems to represent the best for the public nor may he act to the effect that anyone should not swear about this thing with wrongful deceit...' (Oscan: Lu 1, 8-10)

12 All philological square brackets from Rix (2002) and Crawford et al. (2011) were substituted by curly brackets, since square brackets are used only for syntactic purposes in this paper.

In this example, the entire *pis* clause is the subject of the host clause. There is no demonstrative pronoun in the host clause, hence it is a relative clause, not a correlative clause. The lexical head *meddis* 'meddix' is in the relative clause and does not move together with the relative pronoun *pis*. Its nominative case can only be assigned in the relative clause, and this shows it is an internal lexical head. This example is an internally headed relative clause and it has a relative pronoun. de Vries (2005: 154, 54k) claims that "relative pronouns and resumptive pronouns cannot be used in circumnominal relative constructions."[13] However, example (11) is a counterexample to this universal.

Dupraz (2009: 218–9) argues that example (11) is an example of a free relative, reading *pis... meddis* as 'whoever... as meddix' ('qui...comme préteur'), but we disagree with this reading. We interpret *meddis* as the head noun, meaning 'whichever meddix', even though it is not linearly adjacent to the relative pronoun.[14]

The context of the sentence also corroborates our reading. According to Dupraz's interpretation, *meddis* is appositional to *pis*, which means that the person referring to *pis* does not necessarily have to be the official *meddix*, but it could be someone acting like one. In our interpretation, there is no room for ambiguity, *pis* must refer to the current official *meddix*.

Example (12) is an internally headed correlative:

13 de Vries uses the term "circumnominal", which is essentially what we call internally headed in this paper.

14 Other Indo-European languages, like Latin and Vedic, also have this structure:

(1) [$_{RC}$ quis volet magistratus multare] liceto (Latin; Fest. 246)
'whichever magistrate will want to fine, it is permitted.'

(2) *tvé* *tát* *naḥ* *suvédam* *usríyam*
you:LOC;SG that:NOM;SG we:DAT;PL easy.to.find:NOM;SG;N reddish:NOM;SG;N
vásu ‖ [$_{RC}$ *yám* *tvám* *hinóṣi* *mártyam*]
good:NOM;SG;N who:ACC;SG;M you:NOM;SG drive:you:PRS;2SG mortal:ACC;SG;M
(Vedic; RV 8.4.16cd)
'In you is that ruddy good [=cattle] easy to find for us (and for) the mortal whom you urge on.'

(3) [$_{CorC}$ *yā* *vō* ... *ahurō* *mazdå* *nāmą̊m*
REL:ACC;PL;N YOU:DAT;PL Ahura:NOM;SG;M Mazda:NOM.;SG;M name:ACC;SG;N
dadāṯ] ... *tāiš* *vå* *yazamaidē*
give:PRS;3SG DEM:INS;PL;N YOU;ACC;PL praise:PRS;1PL
(Young Avestan; Yasna 38.4; Dashti 2022: 109)
'The names which Ahura Mazda... gave you... we praise you with them.'

(12) [$_{CorC}$ *pafe.* *trif.* *promom.* *haburent.*]
which:ACC;PL;F three:ACC;PL;F first catch:FUT.PRF;3PL
eaf. *acersoni-em* *fetu.* *turse.*
these:ACC;PL;F Acedonia:LOC:POST sacrifice:FUT.IMP;3SG Tursa:DAT;SG;F
iouie. *popluper.* *totar.* *iiouinar.*
Jovia:DAT;SG;F people:ABL;PL;M state:GEN;SG;F Iguvine:GEN;SG;F
totaper. *iouina.*
state:ABL;SG Iguvine:ABL;SG;F
'Whichever three they will have caught first, these he (the *adfertor*) shall sacrifice at Acedonia to Tursa Jovia for the people of the state of Iguvium, for the state of Iguvium.' (Umbrian: VIIa 52-53)

In this example, the lexical head *trif* 'three' is in the correlative clause introduced by the *pafe* clause, and its case is assigned in the *pafe* clause (acc,pl,f), hence it is an internal lexical head. The demonstrative pronoun *eaf* is the correlate in the host clause, coindexed with the lexical head *trif*. In the Sabellic correlative structure, the correlate demonstrative pronoun is always on the left edge of the host clause.

3.2 Externally headed

Externally headed (cor)relative clauses have an overt lexical head in the host clause, and the case of the lexical head is assigned in the host clause, e.g.:

(13) *clauerniur.* *dirsas.* *herti.* (...) *śesna/*
Clavernii:NOM;PL;M give:SUBJ;3PL must dinner:ACC;SG;F
homonus. *duir.* [$_{RC}$ *puri.* *far.*
man:DAT;PL;M two:DAT;M which:INDECL spelt:ACC;SG;N
eiscurent. (...)]
collect:FUT.PRF;3PL
'The Clavernii must give (...) dinner to the two men, who will have collected the spelt (...)' (Umbrian: Vb 8a-10)

In this example, the head noun *homonus duir* 'two men' has dative case since it is the indirect object of the verb *dirsas* 'give' in the host clause, hence it is in the host clause as an external lexical head. If *homonus duir* were an internal lexical head in the *puri* clause and raised to the specifier of the *puri* clause, *homonus duir* would be the subject and would have been assigned the nominative case.

There are no examples of externally-headed correlatives attested in the Sabellic languages. This is also true for Old Avestan, according to Dashti (2022). This might be due to the scarcity of the data, or it might be a feature of these languages.

3.3 *Free*

Free (cor)relative structures do not have overt lexical heads in either the (cor)relative clause or the host clause. The relative pronouns can be interpreted as 'who' or 'what', depending on their animacy.

The following two examples are free relative clauses in the Sabellic languages:

(14) [$_{RC}$ *poei.* *angla* *aseriato.* *eest.*] *eso.*
who:NOM;SG;M bird:ACC;PL;F observe:SUP go:FUT.3SG so
tremnu. *serse.* *arsferture.* *ehueltu.*
tent:ABL;SG sit:PRS.PTCP;NOM;SG;M adfertor:DAT;SG;M demand:IMP;3SG
'The one who goes to observe the birds, sitting shall call out from the tent to the *adfertor*.' (Umbrian: VIa 1)[15]

(15) **ařfetur**. **pisipumpe**. **fust**. **eikvases-e**.
priest:NOM;SG;M who:NOM;SG;M be:FUT;3SG meeting:ABL;SG:POST
atiieřier. **ere**. **ri**. **esune**.
atiedian:LOC;PL;M he:NOM;SG;M thing:DAT;SG;F ritual:DAT;SG;F
kuraia. **prehabia**. [$_{RC}$ **piře**. **uraku**.
care:SUBJ;3SG provide:SUBJ;3SG what:NOM;SG;N that:ABL;SG
ri. **esuna**. **si** **herte**] **et** [$_{RC}$
thing:ABL;SG ritual:ABL be:SUBJ;3SG fit:PRS.PASS.3SG and
pure **esune** **sis**.]
who:NOM;PL;M that(.thing):DAT;SG;F be:SUBJ;3PL
'Whoever will be the priest at the Atiedian meeting he should care for the sacred thing. He should provide that which is necessary at that sacred thing and who should be at the rite.' (Umbrian: Va 3-6)[16]

Here **piře** has an inanimate referent and means 'what', while **pure** has an animate referent and means 'who'. Example (15), along with other examples, suggests that in free relative clauses, the pronouns of base **k*$^{\text{w}}$*í-* are only inanimate (cf. **piře**), and the pronouns of base **k*$^{\text{w}}$*ó-* are animate (cf. **pure**). The relative pronouns *poi, poe, poei* in Umbrian, and the form **pui** in Oscan in free relative clauses are also only animate. We will discuss this more in Section 4: Innovative Free Relative Clause.

Example (16) is a free correlative clause:

15 Our own translation.
16 Translation from Weiss (2009: 184).

(16) [$_{CorC}$ *piei.* *ex.* *comono.* *pertemest.*]
who:DAT;SG;M thus assembly:ACC;SG;N prohibit:FUT.3SG
izic. *eizeic.* *zicelei* *comono.* *ne.*
he:NOM;SG;M that:LOC;SG;M day:LOC;SG;M assembly:ACC;SG NEG
hipid
hold:PRF.SUBJ;3SG
'For whomsoever he shall thus prohibit an assembly, he may not that day hold (any other) assembly.' (Oscan: Lu1 7-8)

3.4 Double headed

Double headed (cor)relative clauses have an overt internal lexical head in the (cor)relative clause and an overt external lexical head in the host clause. In the host clause of the correlative clause, the external lexical head follows the correlate demonstrative pronoun, coindexed with the internal lexical head.

Double headed (cor)relatives are attested cross-linguistically; for instance, English has an archaic register in which non-restrictive relative clauses are double headed:

(17) *He suggested to the defendant the commission of a crime,* [$_{RC}$ *which crime was to be consummated by the concurrent act of…*] (People v. Acritelli, 57 Misc. 574, 110 N.Y.S. 430, N.Y. Gen. Sess. 1908)

Example (18) is a double headed relative clause in Oscan:

(18) **ekss**. **kúmbened**. **sakaraklúm** **herekleís** **{ú}p**
thus agreed sanctuary:NOM;SG;N hercules:GEN;SG;M beside
slaagid. **púd.** **íst.** **íním.** **teer{ú}**
slaags:ABL;SG;F which:NOM;SG;N is and land:ACC;SG;N
púd. **úp.** **eísúd.** **sakaraklúd{.** **íst}** [$_{RC}$
which:NOM;SG;N beside that:ABL;SG sanctuary:ABL;SG;N is
púd. **anter.** **teremníss.** **eh{trúís}.** **íst.** [$_{DHRC}$
which:NOM;SG;N within boundary:ABL;PL;N external:ABL;PL is
paí. **teremenniú.** **mú{íníkad}.**
which:NOM;PL;N boundary:NOM;PL;N common:NOM;SG;N
tanginúd. **prúftú.set.** **r{ehtúd}.** **amnúd**.
decision:ABL;SG set:PRF;PASS;3PL right:ABL;SG perimeter:ABL;SG;N
puz.]] **ídík**. **sakara{klúm}** **íním.** **ídík**.
that that:NOM;SG;N sanctuary:NOM;SG;N and that:NOM;SG;N
terúm. **múíník{úm}.** **múíníkeí.** **tereí**.
land:NOM;SG;N common:NOM;SG;N common:LOC;SG;N land:LOC;SG;N
fusíd.
be:SUBJ;3SG

> '(...) Thus it has been agreed: the sanctuary of Hercules which is beside the *slaags*, and the land which is beside that sanctuary, whatever is within the outer boundary markers, which boundary markers were set up by joint decision, in a straight fashion, that that sanctuary and that land should be jointly-held in jointly-held land, [and] that sanctuary [and] land should be common to both.' (Oscan: Cm 1A 11-19)

This example has a really complicated structure, but here we are focusing only on the double head relative construction. The relative clause, labeled as DHRC and introduced by **paí**, has **teremenniú** 'boundary mark' as its lexical head. It is nested in its host clause, which is labeled as RC – since it is also a relative clause – and introduced by **púd**. The host clause has **teremníss** 'boundary' as its lexical head, which is identical to the lexical head of the nested **paí**-relative clause except for the case; and this shows that this structure is a double headed relative construction. The structure of the host and relative clause is presented in (19).[17]

Traditionally, the external head is defined as the lexical head, which precedes the relative pronoun of the (cor)relative clause, and hence the noun after the correlate demonstrative pronoun is not considered as the external head of a correlative construction. However, by our definition based on case assignment, the lexical head which precedes the relative pronoun may either be the raised internal head, or the external head in the host clause. The external head of a relative clause does not have to be adjacent to the relative clause, as in the right extraposed relative clause:

(20) *No man is a failure* [$_{RC}$ *who has friends*].

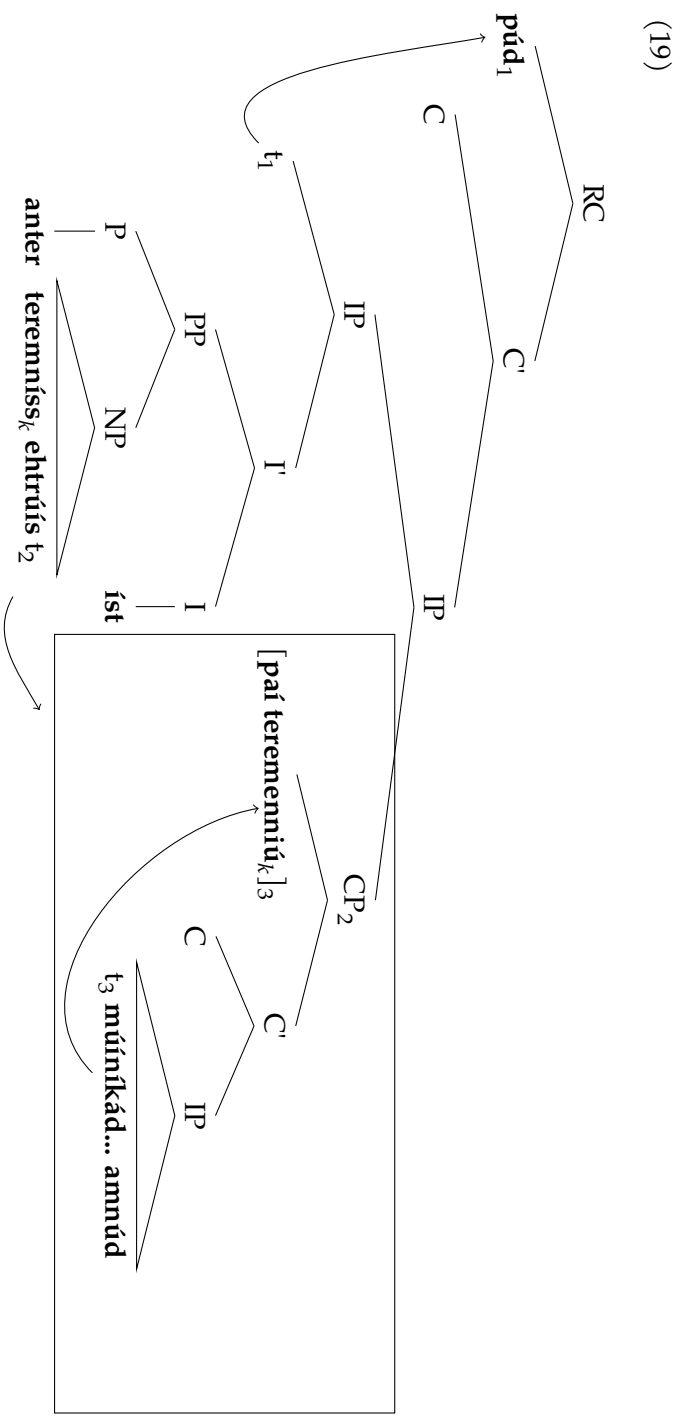
Here, the lexical head *man* is not adjacent to the *who* clause. Analogously, in a correlative structure, the external head in the host clause may also be non-adjacent to the correlative.

By this definition of external lexical head, the following is also an example of a double headed correlative clause in Sabellic:

(21) [$_{CorC}$ **v(iíbis)**. **aadirans**. **v(iíbieís)**.
vibius:NOM;SG;N adiranus:NOM;SG;M vibius:GEN;SG;M
eítiuvam. **paam**. **vereiiaí**. **púmpaiianaí**.
money:ACC;SG;F which:ACC;SG;F vereia:DAT;SG;M pompeian:DAT;SG
trístaamentud. **deded**.] **eísak**. **eítiuvad**
will:ABL;SG;N give:PRF;3SG that:ABL;SG;F money:ABL;SG;F
v(iíbis). **viínikiís**. **mr**. **kvaísstur**.
vibius:NOM;SG;M vinicius:NOM;SG;M maras:GEN;SG;M questor:NOM;SG;M

17 For the structure of the whole sentence, see structure (41).

(19)


púd$_1$
RC
C
C'
t$_1$
IP
IP
PP
I'
P
NP
anter teremníss$_k$ ehtrúís t$_2$
I
íst
[paí teremenniú$_k$]$_3$
CP$_2$
C
C'
t$_3$ múiníkád... amnúd
IP

púmpaiians. **trííbúm**. **ekak**.
pompeian:NOM;SG;M building:ACC;SG;F that:ACC;SG;F
kúmbennieís. **tanginud**. **úpsannam**.
assembly:GEN;SG;N decision:ABL;SG;F construct:GER;ACC;SG;F
deded. **ísídum**. **prúfatted**
give:PRF:3SG same.person:NOM;SG;M approve:PRF;3SG
'In respect of the money which Vibius Adiranus, son of Vibius, gave by will to the Pompeian *vereia*, from that money V. Vinicius, son of Maras, quaestor at Pompei, let the contract for this building to be constructed, by decision of the assembly, the same person approved it.' (Oscan: Po 3)

Dupraz (2009: 221) interprets **eítiuvam** and **eítiuvad** as coreferents, but we argue that both nouns are heads of their respective clauses.

4 Innovative Free Relative Clause

Proto-Indo-European had a stem *h_x*ios*, *h_x*ieh$_2$*, *h_x*iod* (> Ved. *yáḥ*, *yā́*, *yád*; Gk. <'os, <'h, <'o) for the relative pronoun, and the stem *k^w*ó/e-*, *k^w*í-* for the interrogative/indefinite. In PIE the pronouns had interrogative meaning when accented, and indefinite meaning when enclitic.[18]

These pronouns have maintained their identity in Latin, but their paradigms have influenced each other. The pronouns with the stem *k^w*ó/e-* were still used as relative pronouns, but pronouns with the stem *k^w*í-* could also be used sometimes as relative pronouns, especially in Old Latin (cf. Pinkster 2021: 14).

Furthermore, there is no distinction in animacy for the relative pronouns of base *k^w*ó/e-* and *k^w*í-* in Latin, as the examples (22) and (23) show:

(22) *homines eos dato, qui placebunt aut custodi aut* [$_{RC}$ *quis eam oleam emerit*]
'Furnish workmen to the satisfaction of the representative of the owner or the one who has bought the olives.' (Cato *Agr*. 145.1)[19]

(23) *dominus vino* [$_{RC}$ *quid volet faciet*]
'the owner will do what he will with the wine.' (Cato *Agr*. 148.2)[20]

In (22) the relative pronoun *quis* (< *k^w*í-*) in the free relative has an animate referent, while in (23) the relative pronoun *quid* (< *k^w*í-*) has an inanimate

18 For more on the development of the pronouns in PIE and Latin, see Weiss (2020: 369–375) and Sihler (1995: 395–401).
19 Translation by Hooper & Ash 1934: 129.
20 Translation by Hooper & Ash 1934: 133.

referent. That means that pronouns with the *k^{w}*í*- stem can have animate and inanimate referents.

The case for the Sabellic languages is different. Dupraz (2009) argues that (unlike Latin) there is a difference in the usage of the pronouns of base *k^{w}*ó*- and *k^{w}*í*- in the Sabellic languages: Oscan shows a syntactic distinction between clauses that have a relative pronoun of base *k^{w}*ó*- and clauses that have a relative pronoun of base *k^{w}*í*-; while Umbrian shows a semantic difference between the clauses introduced by the two different types of pronouns. We agree that there is a difference, but it is more subtle than the one proposed by Dupraz (2009).

We will show that both of the claims made by Dupraz (2009) do not hold under our framework, since we can find counterexamples for both in Oscan (e.g. Oscan: Lu 1, 9) and in Umbrian (e.g. Umbrian: Va 7).

Dupraz (2009) claimed that the Oscan relative pronouns of base *k^{w}*ó*- and those of base *k^{w}*í*- have a syntactic distinction: the relative pronouns of base *k^{w}*ó*- introduces the (lexically) headed relative clauses, while the relative pronouns of base *k^{w}*í*- introduces free relative clauses.

However, we have found counterevidence for this claim in Oscan. Example (11) repeated here as example (24) shows that pronouns of base *k^{w}*í*- are not always free relatives, as Dupraz (2009) argues, but they can have a head in their domain. In this example, as we have shown before, *meddis* acts as the lexical head of the pronoun *pis*.

(24) [$_{RC}$ *pis.* *pocapi{.}t.* *post.* *exac.*
which:NOM;SG;N ever hereafter this:LOC;SG;N
comono. *hafie{i}st.* *meddis.* *dat.*
assembly:ACC;PL;N hold:FUT;3SG *meddix*:NOM;SG;M about
castrid. *loufir.* *en.* *eituas.*] *factud.* *p{o}us.*
goods:ABL;SG;N or in money:GEN;SG;F do:IMP;3SG that
touto. *deiuatu{n}s.* *tanginom.* *deicans.*
people:NOM;PL;F swear:PTCP;NOM;M opinion:ACC;SG;F say:PRS;SUBJ;3PL
siom. *dat.* *eiza(i)sc.* *idic.* *tangineis.* *deicum.*
they about these:ABL;PL;F this:ACC;SG;F opinion:GEN;SG;F say:INF
pod. *ualaemon.* *touticom.* *tadait.* *ezum.*
which:ACC;SG;N best:ACC;SG;N public:ACC;SG;F seem:PRS;SUBJ;3SG be:INF
nep. *fefacid.* *pod.* *pis.* *dat.* *eizac.*
not make:PRF;SUBJ;3SG that anyone:NOM;SG;M about this:ABL;SG;F
egmad. *min{s}* *deiuaid.* *dolud.*
thing:ABL;SG;F less swear:PRS;SUBJ;3SG deceit:ABL;SG;M
malud.
wrongful:ABL;SG;M

> 'Whichever *meddix* shall hereafter hold an assembly concerning goods or money, he is to see that the people should pronounce an opinion under oath that they should pronounce this opinion about them, which seems to represent the best for the public nor may he act to the effect that anyone should not swear about this thing with wrongful deceit...' (Oscan: Lu 1, 8-10)

Dupraz (2009) also argues that Umbrian shows a semantic difference between the pronouns: **k*^{w}*ó-* for specific clauses (definite clauses in our terminology) and **k*^{w}*í-* for generic clauses (indefinite/free clauses in our terminology).

However, relative pronouns of base **k*^{w}*ó-* can also introduce free relative clauses in the Sabellic languages. **k*^{w}*ó-* can also introduce other types of relative clauses, but free relative clauses with a pronoun meaning 'who' are only introduced by this pronoun. This is a specific innovation of Sabellic; other branches may have other (similar) innovations, but they must have happened independently.

Example (15) repeated as example (25) shows **piře** (base**k*^{w}*í-*), referring to an inanimate source meaning 'what', and **pure** (base base **k*^{w}*ó-*) referring to an animate source meaning 'who':

(25) **ařfetur**. **pisipumpe**. **fust**. **eikvasese**.
priest:NOM;SG;M who:NOM;SG;M be:FUT;3SG meeting:ABL;SG:POST
atiieřier. **ere**. **ri**. **esune**.
atiedian:LOC;PL;M he:NOM;SG;M thing:DAT;SG;F ritual:DAT;SG;F
kuraia. **prehabia**. [$_{RC}$ **piře**. **uraku**.
care:SUBJ;3SG provide:SUBJ;3SG what:NOM;SG;N that:ABL;SG
ri. **esuna**. **si** **herte**] **et** [$_{RC}$
thing:ABL;SG ritual:ABL be:SUBJ;3SG fit:PRS.PASS.3SG and
pure **esune** **sis**.]
who:NOM;PL;M that(.thing):DAT;SG;F be:SUBJ;3PL

> 'Whoever will be the priest at the Atiedian meeting he should care for the sacred thing. He should provide that which is necessary at that sacred thing and who should be at the rite.' (Umbrian: Va 3-6)

This example suggests that in free relative clauses, the pronouns of base **k*^{w}*ó-* and **k*^{w}*í-* refer to different entities: the first one refers only to animate beings and the second one refers to inanimate beings.

This distribution is similar to the situation described by Tedesco (1945) for Indo-Iranian: Turfan Median *kēč* 'somebody', Av. *kasčiṯ* 'somebody' (< **k*^{w}*ó/e-*) *vs* Skt. *kím* 'what', Per. *čīz* 'something' (< **k*^{w}*í-*).

5 Unusual Types in South Picene

To our knowledge, and because of the limited textual evidence, there are only three instances of (cor)relative clauses in South Picene.

Some scholars interpret example (26) as a relative clause with **puíh** as a relative pronoun, but that reading is improbable. Usually, the relative pronoun introduces the relative clause, but here **puíh** is the last word of the clause. It is more plausible to read **puíh** as *puēd*, an indefinite:

(26) **matereíh patereíh qolofí-túr qupíríh**
mother:DAT;SG;F father:DAT;SG;M erect:PRS.IND;PASS;3SG well
arítih ímih puíh púpúnum
art:ABL;SG ?:ABL;SG something:NOM;SG;N Poponius:GEN;PL;M
estufk apaiús ad-staíúh súaís
this:ADV=DEM Appaeus:NOM;PL;M PV-stand:PRF;IND;3PL their:ABL;PL;F
manus meitimúm *vacat*
hand:ABL;PL;F gift(?):ACC;SG;M
'The Appaei belonging to the Poponii have set up here with their hands the gift (?), something is erected well, with art [-?-] for the mother (and) for the father'. (South Picene: AP.2)[21]

Example (27) shows a typical word order:

(27) **{-?-}rtúr brímeqlúí alíntiom okreí**
?:PRS;PASS;3SG Brimeclum:DAT;SG;M Alentes:GEN;PL;M citadel:LOC;SG;M
safin-a{s -?-} {-?-}enips toúta tefeí
Sabine:GEN;SG;M ? community:NOM;SG you:DAT
posmúi prai-staínt a{-?-}
who:DAT;SG;M PV-stand:PRS;IND;3PL ?
'V (is offered?) for (the town of?) Brimeclum, belonging to the Alentes, in the citadel of the Sabine [-?-], the community for you (SG), for whom (the commemorative stones) stand out [-?-]' (South Picene: TE.7)[22]

Example (28) has two relative clauses, a **pid**-clause and a **posmúi**-clause. There have been different interpretations of the **pid**-clause, and the **posmúi**-clause seems to show the relative pronoun *in situ*:

(28) **σidom safinús estuf eσelsí-t**
on.this.side(?) Sabine:NOM;PL;M here erect(?):PRS;IND;3PL
tíom povaisis pid aitúpas
you:ACC;SG ? anything:ACC;SG;N resolve(?):PRF;SUBJ;2SG

21 Translation by Zamponi (2021: 81) with a slight modification.
22 Translation by Zamponi (2021: 81–2).

fitiasom **múfqlúm** **meíttistrúí nemúneí**
deed(?):GEN;PL;F remind:NOMLZ(?);NOM/ACC;SG ?:DAT;SG ?:DAT;SG
praistaít **panivú** **meitims** **safinas**
PV-stand:PRS;IND;3SG ? gift(?):NOM;SG;M Sabine:GEN;SG;M
tútas **trebegies** **titúí** [$_{RC}$
community:GEN;SG;F Trebecius:GEN;SG;M Titus:DAT;SG;M
praistakla=sa **posmúi**]
monument:NOM;SG=DEM.NOM.SG(?) who:DAT;SG;M

"On this side (?), the Sabines erect (?) here, you (ACC), [-?-] (in respect of) anything you have decreed, a monument (?) of (your) deeds (?) stands out for [-?-] [-?-] the gift (?) of the Sabine community for Titus (son) of Trebecius, for whom the (?) stele (is)'. (South Picene: TE.5)[23]

There are two noteworthy points in example (28). First, the interpretation of **pid** is controversial: Zamponi (2021) takes **pid** as the indefinite pronoun 'anything', while Clackson (2023) interprets **pid** as a case of free and non-restrictive relative clause, translating it as 'whatever you have decreed'. Both Clackson's and Zamponi's interpretations are possible, but the text is too fragmentary to conclusively make a choice about either reading.

Secondly, the last relative clause in (28) **praistakla=sa posmúi** has **praistakla** fronted over the relative pronoun **posmúi**. This is common in old Indo-European languages. Here is an example from Vedic Sanskrit for comparison:

(29) *jahí* *śátrum* *antiké* [$_{TopP}$ *dūrakéi* *ca*
smite:IMP;2SG rival:ACC;SG nearby:LOC;SG distance:LOC;SG and

[$_{CP}$ *yáḥ* t_i]]
REL:NOM;SG

'Smash the rival nearby and the one who is in the distance.' (Vedic: RV 9.78.5c)[24]

In (29), the nominal predicate *dūrakéi* 'in the distance' is fronted before the relative pronoun *yáḥ*. Notably, in the clause *dūrakéi ca yáḥ*, the relative pronoun *yáḥ* has become the last word of the clause, which is the same case as **praistakla=sa posmúi** in example (28).

Syntactically, it can be explained by positing a Topic projection over the relative pronouns in the left periphery of CP. Such fronting is commonly

23 Translation by Zamponi (2021: 41–2).
24 All Vedic translations are from Jamison & Brereton (2014).

found in old Indo-European languages such as Vedic, cf. Delbrück (1888: 16). Here we follow Hale (2007: 196–8), labelling this projection as TopP.

Hence, the word order in example (28) can be explained by the same process of fronting:

(30) [$_{TopP}$ **praistakla$_i$=sa** [$_{RC}$ **posmúi** t_i]]
monument:NOM;SG=DEM.NOM.SG(?) who:DAT;SG;M
'for whom the (?) stele (is).'

6 Comparison with other Indo-European languages

Sabellic relativization has similarities and differences to other branches of Indo-European languages. In Section 6.1 we compare the types of relative clauses to Latin. In Section 6.2 we compare the (in)definite relative clauses to Hittite. In Section 6.3 we argue that the correlative clauses in Sabellic are base generated, which is comparable to Hittite and Vedic Sanskrit.

6.1 Type Comparison with Latin

Latin has the same types of relativization strategy as the Sabellic languages. It has relative clauses and correlative clauses. The relative clauses can be either externally headed or internally headed, and Archaic Latin has double headed correlative clauses, a structure that Classical Latin does not have anymore.

6.1.1 Externally headed relative clause

(31) *Multas ad res perutiles Xenophontis libri sunt,* [$_{RC}$ *quos legite quaeso studiose, ut facitis*].
'Xenophon's writings are very instructive on many subjects, which I beg you to keep reading studiously as you have been doing.' (Cic. *Sen*. 59)[25]

Example (31) has an externally headed relative clause. The head noun *libri* in the host clause is in the nominative case, and the relative pronoun *quos* is in the accusative case assigned by the verb *legite* 'read' in the relative clause.

25 Example from Pinkster (2021: 486).

6.1.2 *Internally headed relative clause*

(32) (...)*ut ei detur* [$_{RC}$ *quam istic emi virginem*] (...)
'(...) that the girl whom I purchased there be given to him (...)' (Pl. *Cur.* 433)[26]

Example (32) has an internally headed relative clause. The noun *virginem* is inside the relative clause and has the same case, namely the accusative case, as the relative pronoun *quam*, therefore it has to be the head of the clause.

6.1.3 *Free relative clause*

(33) *Edepol* [$_{RC}$ *qui amat*] (...) *misera affligitur aerumna.*
'Truly, the one who loves (...) is struck by miserable sorrow.' (Pl. *Cur.* 142)[27]

Example (33) does not have a head noun in the relative clause and the relative pronoun *qui* itself is the subject of the relative clause. It is also the subject of the host clause, without any external head. Hence, this example is a free relative clause.

6.1.4 *Correlative clause: internally headed and double headed*

Here we have an example from Archaic Latin:

(34) [$_{CorC}$ *quem agrum eos uendere heredemque sequi licet,*] *is ager uectigal nei siet* (*Sententia Minuciorum* CIL I^2 584.5)
'whichever field they may sell and pass to an heir, that field should not be taxable.'[28]

This is an example of double headed correlative clause, the head noun appears twice as nominative *ager* in the host clause and accusative *agrum* in the correlative clause respectively.

Since we see the exact same relative clause structures in the Sabellic languages and Italic, this suggests that all these structures mentioned above can be traced back to Proto-Italic.

26 Example from Pinkster (2021: 502).
27 Example from Pinkster (2021: 475).
28 Our translation.

6.2 *Definiteness and Word Order Comparison with Hittite*

In the Sabellic languages, NP preceding the relative pronoun has a definite reading, as we will see below. This is comparable to the cases in Hittite, as discussed in Garrett (1994): the relative pronoun is in clause-initial position (ignoring clausal conjunction and attached clitics) in indefinite relative clauses, while in definite relative clauses, the relative pronoun is non-initial.[29]

Example (35) is a Hittite indefinite correlative clause:

(35) [$_{CorC}$ *kue* GAL.ḪI.A *akkuškizzi*] *ta*
which:ACC;PL;N cup:ACC;PL;N drink:PRS.ITER;3SG CONN
apē=pat *ekuzi*
those=EMPH drink:PRS;3SG
'whichever cups he usually drinks from, he shall drink from those.'[30]
(KBo 19.74 iv 33' -34')

This example is comparable to the Sabellic example (8) repeated here as (36):

(36) [$_{CorC}$ *pafe.* *trif.* *promom.* *haburent.*]
which:ACC;PL;F three:ACC;PL;F first catch:FUT.PRF;3PL
eaf. *acersoniem* *fetu.* *turse.*
these:ACC;PL;F Acedonia:LOC:POST sacrifice:FUT.IMP;3SG Tursa:DAT;SG;F
iouie. *popluper.* *totar.* *iiouinar.*
Jovia:DAT;SG;F people:ABL;PL;M state:GEN;SG;F Iguvine:GEN;SG;F
totaper. *iouina.*
state:ABL;SG;F Iguvine:ABL;SG;F
'Whichever three they will have caught first, these he (the *adfertor*) shall sacrifice at Acedonia to Tursa Jovia for the people of the state of Iguvium, for the state of Iguvium.' (Umbrian: VIIa 52)

In these two examples, the relative pronouns *kue* and *pafe* precede the head nouns GAL.ḪI.A 'cups' and *trif* 'three', and both examples have a quantificational/indefinite reading.

If the order of the relative pronoun and the NP is reversed, then the (cor)-relative clause has a definite reading. Example (37) is a Hittite definite correlative clause:

(37) [GU_4=*ya*=*wa*=*mu* *kuin* *tet*]
cow=and=QUOT=me which:COM;ACC;SG say:PST;2SG
nu=*war*=*an*=*mu* *uppi*
CONN=QUOT=it=me send:IMP;2SG

29 Yates (2014) also provides some counterexamples showing that (cor)relative clauses with a non-initial relative pronoun can also be indefinite, due to topicalization.

30 Translation from Fortson (2010: 183).

'And the cow that you promised me, send it to me.' (Ma at 75/14 obv. 14-16)[31]

This is comparable to the following Oscan example:

(38) [$_{RC}$ **thesavrúm**. **púd**. **e(í)seí**. **tereí**.
treasury:NOM;SG;N which:NOM;SG;N that:LOC;SG;N land:LOC;SG;N
íst.] **pún**. **patensíns**. **múíníkad**. **ta{n}-ginúd**.
is when open:SUBJ;IMPF;3PL common:ABL;SG;F decision:ABL;SG;F
patensíns. **íním**. **píd**. **e{íseí}** **thesavreí**.
open:SUBJ;IMPF;3PL and whatever thatDAT;SG;N treasury:DAT;SG;N
púkkapíd. **ee{stít}** **aíttíúm**. **alttram**.
ever is share:GEN;PL each.oneACC;SG;F
alttr{ús} **{f}erríns**.
each.one.:NOM;SG;M take:SUBJ;IMPF;3PL

'But (it was agreed that) the treasury which is in that land, when they open it they are to open it by joint decision, and whatever is in that treasury, they are each to take one of (the two) shares.' (Oscan: Cm 1B 23-28)

In these two examples, the head nouns GU_4 'cow' and **thesavrúm** 'treasure' precede the relative pronouns *kuin* and **púd**, and both examples have a definite reading.

Relative pronouns in the Sabellic languages, similar to what Ivanov (1979) discussed for Hittite, are indefinite in initial position and are definite in non-initial position. Furthermore, both correlatives and relatives follow the same word order constraint in the Sabellic languages. Even though Ivanov's analysis does not hold for Hittite anymore, it is still true for the Sabellic languages.

Some scholars analyze the relative pronoun in Hittite as enclitic, cf. Motter (2023b). Applying this enclitic view, Yates & Melchert (2024) provide an alternative explanation for the position of the relative pronouns in definite versus indefinite relative clause: the position of the relative pronoun is determined by a phonological process rather than a syntactic process. In this view, the situation of Hittite is not comparable to the Sabellic languages.

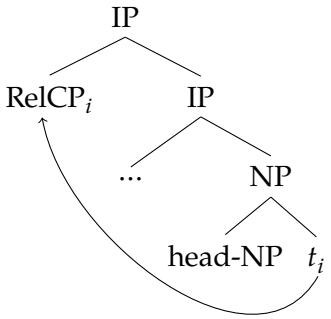
6.3 Base generation vs. Movement: comparison with Hittite and Indic

In previous literature, such as de Vries (2005), the correlative construction is characterized as a "preposed" relative clause. However, there are other strategies to form correlatives than preposing a relative clause, such as base

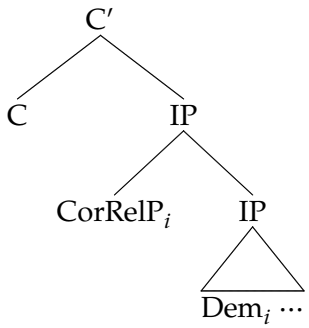
31 Translation from Fortson (2010: 183).

generating the correlative clause in the position of a right-adjunct of IP, base generating the correlative clause in the Specifier of a CP, or parataxis, i.e. the correlative clause and the host clause are not syntactically integrated and the connection is at the discourse level. Therefore, we have four strategies in total. Here are the configurations of these strategies:

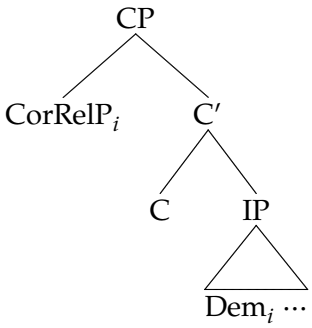
i. "preposed" relative clause: moved to adjunct of IP: Hindi simple correlatives, Bhatt (2003)



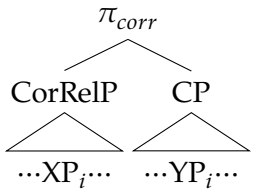
ii. base generated in Adjunct of IP: Hindi multi-headed correlatives, Bhatt (2003)



iii. base generated in SpecCP: Vedic, Qu (2021), also discussed in Appendix C



iv. parataxis: Hittite, Motter (2023a)[32], discussed in section 6.3.1



We will show that Sabellic correlative clauses are base generated in SpecCP (strategy 3 like Vedic), based on the comparison with Hittite and Indic languages, such as Hindi and Vedic.

6.3.1 Hittite

Motter (2023a: 5) shows that Hittite correlative clauses can have their correlate in an adjunct clause:

(39) [$_{CorC}$ *kāšma=ʋa* MUŠEN.ḪI.A *kue* *ANA* EN=*YA*
herewith=QUOT bird:PL which to Lord=my
uppaḫḫun]
sent:PST;1SG

[$_{CP}$ *nu=ʋa=za* *mān* EN=*YA* *apē* MUŠEN.ḪI.A
CONN=QUOT=REFL if Lord=my those bird:PL
malāši] *nu=ʋa=mu* EN=*YA* EGIR-*pa ḫatrāu*
approve:PRS;2SG CONN=QUOT=me Lord=my back write:IMPF;2SG

'The birds which I have herewith sent to my Lord, if you My Lord approve of those birds, may you My Lord write back to me.' (AT 125 11-12 5-9)

Example (39) shows that Hittite correlative clauses are base generated, ruling out the preposing strategy and the IP-adjunction strategy, since otherwise it will violate adjunct-island constraints, namely the *mān*-clause (the 'if'-clause).[33]

Now consider example (18) repeated here as (40):

32 Motter (2023a) uses π_{corr} to denote the discourse constituent.

33 Motter (2023a) also discusses examples where the complementizer is in the correlative clause, and suggests that it is not a robust construction type.

(40) **ekss**. **kúmbened**. [$_{CP}$[$_{CorC}$ **sakaraklúm** **herekleís** **{ú}p**
thus agreed sanctuary:NOM hercules:GEN beside
slaagid. **púd.** **íst.** **íním.** **teer{ú}** **púd.** **úp.** **eísúd.**
slaags:ABL which:NOM is and land:ACC which:NOM beside that:ABL
sakaraklúd{. íst} **púd.** **anter.** **teremníss.** **eh{trúís}.**
sanctuary:ABL is which:NOM within boundaries:ABL external:ABL
íst. **paí.** **teremenniú.** **mú{íníkad}.** **tanginúd.**
is which:NOM;PL;N boundaries:NOM common:ABL decision:ABL
prúftú.set. **r{ehtúd}.** **amnúd**.] **puz**. **ídík**.
set:PRF;PASS;2PL right:ABL perimeter:ABL that that:NOM
sakara{klúm} **íním.** **ídík**. **terúm**. **múíník{úm}.** **múíníkeí.**
sanctuary:NOM and that:NOM land:NOM common:NOM common:LOC
tereí. **fusíd**.]
land:LOC should.be

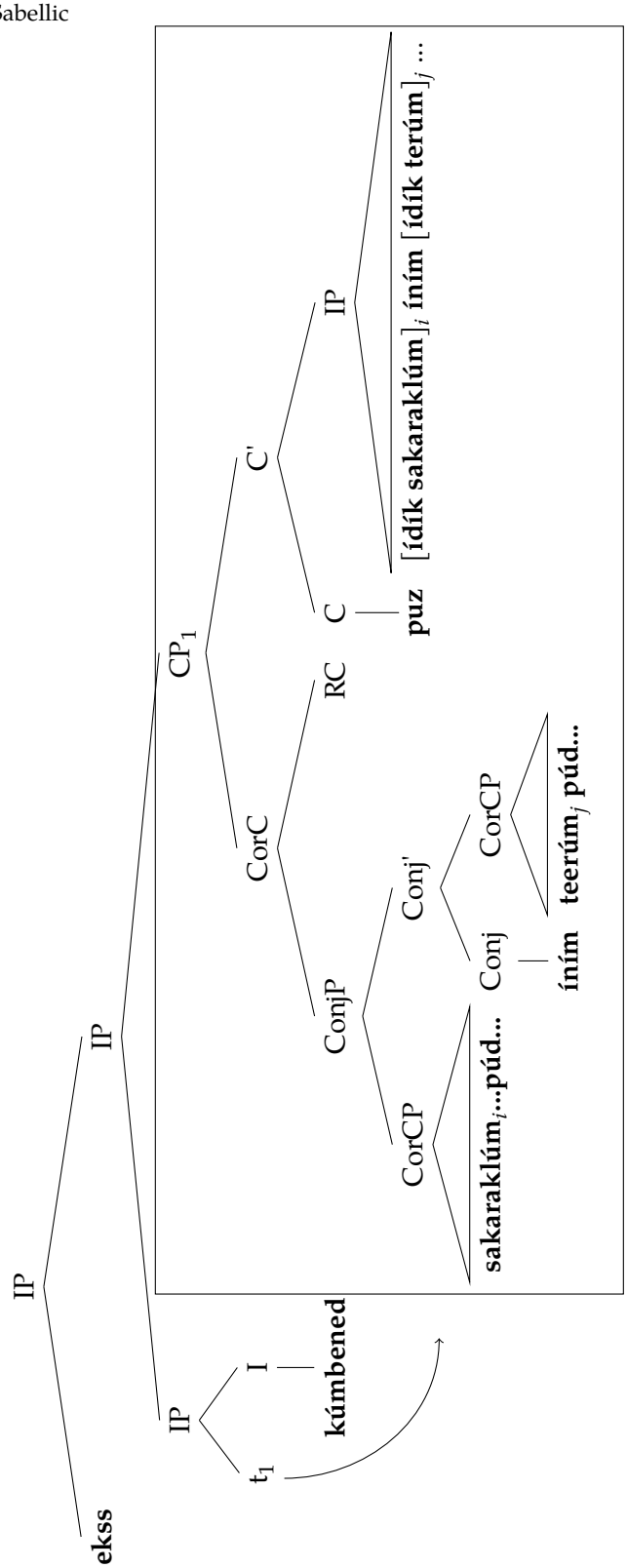
'(...) Thus it has been agreed: the sanctuary of Hercules which is beside the *slaags*, and the land which is beside that sanctuary, whatever is within the outer boundary markers, which boundary markers were set up by joint decision, in a straight fashion, that that sanctuary and that land should be jointly-held in jointly-held land, [and] that sanctuary [and] land should be common to both.' (Oscan: Cm 1A 11-19)

In section 3.4 we discussed double headed relative construction with the head **teremníss**, **teremenniú** 'boundary markers'. This structure is inside a larger double headed correlative construction, with the correlative clause **sakaraklúm** ...**amnúd**, headed by **sakaraklúm** 'sanctuary' and **terúm** 'land', and the host clause **puz** ...**fusíd** headed by **ídík sakaraklúm** 'that sanctuary' and **ídík terúm** 'that land'. The host clause is introduced by the complementizer **puz**, which means that the whole correlative construction is the content clause of *ekss* 'thus', emphasising what has been agreed. The configuration of the entire sentence is the presented in (41).[34]

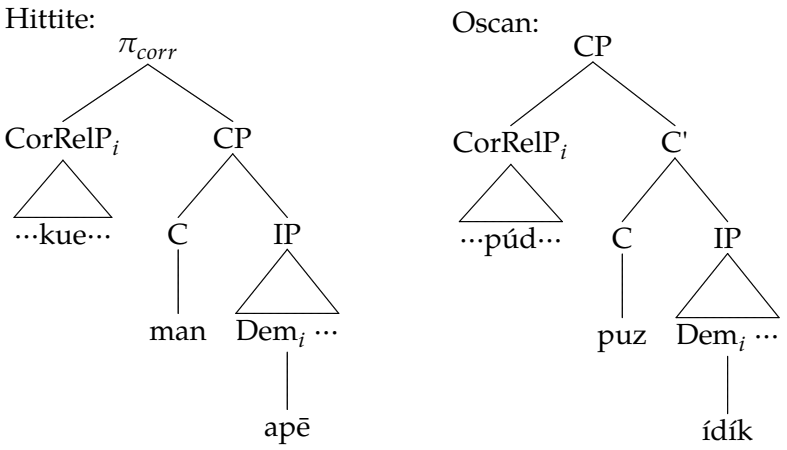
The whole correlative clause precedes the complementizer **puz**, which is comparable to the Hittite correlative clause preceding the connective. Here is a side-by-side comparison between the constructions of the two languages:

34 We assume that Oscan inherited right-I from Proto-Indo-European, which is reconstructed by Windhearn (2020: 113). The I head **kúmbend** 'agreed' in (41) precedes the CP complement due to a rightward movement of CP (cf. Bruening 2018), we assume the landing site is IP, but other positions may also be possible and will not change our analysis of the correlative construction.

(41)


IP
ekss
IP
IP
t1
I
kúmbened
CP1
CorC
ConjP
CorCP
sakaraklúmi...púd...
Conj'
Conj
íním
CorCP
teerúmj púd...
RC
C'
C
puz
IP
[ídík sakaraklúm]i íním [ídík terúm]j ...

(42)



This suggests that both Hittite and Oscan have their correlative clauses higher than the IP projection. Motter (2023a) argues that Hittite correlative clauses are paratactic, hence there is no island-effect naturally. The Oscan structure, on the other hand, cannot be paratactic since the whole correlative construction is subordinated in the main clause **ekss kúmbened ...** "thus it has been agreed: ...".

The correlatives in Oscan still require further analysis, because Hittite *mān* 'if' introduces an adjunct clause, and hence it forms an adjunct island, but the Oscan complementizer **puz** 'that' introduces a subordinate clause, which is not an island, so we still need to investigate whether the Oscan correlative clause is base generated or moved, by comparing it to Indic correlative clauses.

6.3.2 Indic

6.3.2.1 Correlate demonstrative in embedded clauses

Bhatt (2003) argues that in Hindi, simple correlatives are moved rather than base generated.[35]

Simple correlatives in Hindi cannot move out of islands, but they can move from embedded clauses, as follows:

35 Simple correlatives are opposed to Multi-Head correlatives, such as:

(1) [$_{CorC}$ *jis-ne$_i$* *jo$_j$* *kar-na: cha:h-a*] [$_{IP}$ *us-ne$_i$* *vo$_j$* *ki-ya:*] (Bhatt 2003: 492)
REL.ERG REL do-GER want-PRF DEN.ERG DEM do-PRF
'For x, y s.t. x wanted to do y, x did y. (lit. 'Who wanted to do what, he/she did that.')'

But in Sabellic, there are no Multi-Head correlatives attested, so we do not discuss Multi-Head correlatives.

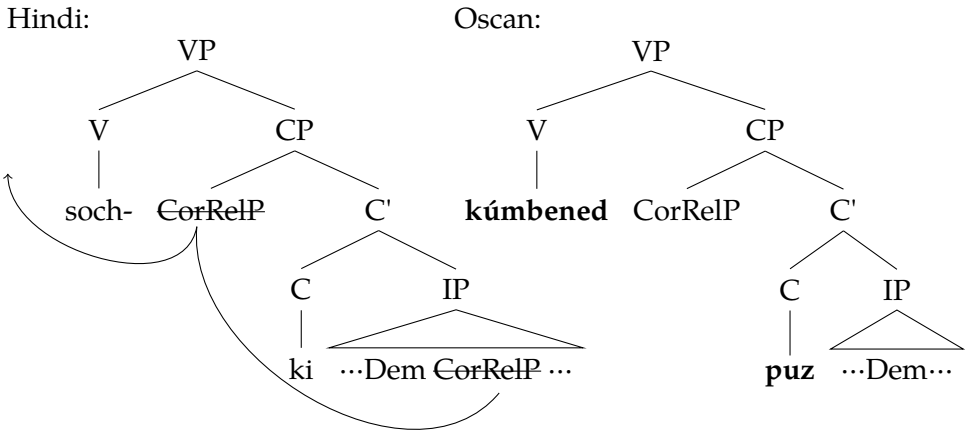
(43) [$_{CorC}$ *jo* *larki: TV-par ga: rah-i: hai*] [$_{CP}$ *Sita soch-ti: hai* [$_{CP}$ *ki* *vo* *sundar* *hai*]]
REL girl TV-on sing PROG be:PRS Sita:F think-F.HAB be:PRS that DEM beautiful be:PRS
'Sita thinks that the girl who is singing on TV is beautiful.' (lit. 'Which girl is singing on TV, Sita thinks that she is beautiful.') (Bhatt 2003: 500)

Example (43) has an embedded clause (the *ki*-clause). For the correlative clause to move from the embedded clause to the left of the host clause, cyclic movement must take place, with the Specifier position of the complementizer *ki* as an intermediate landing site.

However, in the Oscan example (40), the correlative clause is in the Specifier position of the complementizer **puz** of the embedded clause, and it is not moved to the left of the host clause.

The difference between Hindi and Oscan can be seen below:[36]

(44)



This suggests that Sabellic correlative clauses, unlike Hindi, do not show cyclic movement.

36 The VP projection is simplified: both languages should be verb final languages, but CP complements are usually extraposed, so these trees simply have the V head branching to the left, which does not affect our analysis.

6.3.2.2 Position of the correlate demonstratives

Hindi correlate demonstratives do not have to be overtly moved to the left periphery of the host clause, e.g.:

(45) [$_{CorC}$ *jo* *CD* *sale-par hai*], [*Maya* *us* *CD-ko* *khari:d-egi:*]
REL CD sale-on be:PRS Maya:F DEM CD-ACC buy:F;FUT
'Maya will buy the CD that is on sale.' (lit. '[Which CD is on sale], Maya will buy that CD.') (Bhatt 2003: 486)

In example (45), the correlate demonstrative pronoun *us* is *in situ*. Furthermore, Bhatt (2003) argues that the correlative clause is moved to the adjunct position of the IP, therefore the correlative demonstrative cannot be above the IP.

However, in languages (like Vedic) where correlatives are base generated in the left periphery, the correlates are usually moved to the left periphery:[37]

(46) [$_{CorC}$ *yéna* *gácchathaḥ sukṛ́to* *duroṇáṃ*]
REL:INS;SG go:PRS;2PL good-doer:GEN;SG;M home:ACC;SG;N
téna *narā* *vartír* *asmábhyam yātam*
DEM;INS;SG man:VOC;DU;M course:ACC;SG;N we:DAT.PL go:IMP;2DU
'By which (chariot) you go to the home of the good ritual performer, by that, o men, travel your course to us.' (RV 1.117.2cd)

Even if the correlate is not in the leftmost position of the host clause, it is still in the left periphery.

As discussed in Section 2.2: Correlatives, in all the attested Sabellic correlative examples, the correlate demonstratives precedes everything else in the IP, which suggests that they should be in the left periphery, like Vedic, but unlike Hindi.

For the Sabellic correlatives, an alternative movement analysis is structurally possible, but requires a motivation for the movement. Since there is no syntactic motivation for that, it is more likely that the Sabellic correlatives are also base generated, like in Hittite and Vedic.

Here we have a table comparing the parameters of all the four languages that we have discussed so far:

37 The arguments that Vedic correlatives are not generated as the correlate DP adjunction and moved can be found in Ram-Prasad (2023: 141-172), arguing that the correlative clauses are adjoined to the host clause. Qu (2021) also argues that Vedic correlative clauses are not moved, cf. Appendix C.

Parameter	Hittite	Vedic	Sabellic	Hindi
Correlative above complimentizer	Yes	Yes	Yes	No
Cyclic movement	No	No	No	Yes
Correlate in left periphery	Yes?	Yes	Yes	No
Generated as NP Adjunct	No	No	No	Yes

Table 3: Parameter Comparison

Table 3 shows that the syntactic structure of Sabellic is more similar to the old Indo-European languages such as Hittite and Vedic than modern Indo-European languages such as Hindi.

7 Conclusion

- Overall, the Sabellic languages use the same types of relativization as Latin, but does not use the relative pronouns in the same way.
- The Sabellic languages limit the use the pronouns of base *k^{w}*ó*- to introduce only animate free relative clauses, but not inanimate, unlike Latin, where the pronouns of base *k^{w}*ó*- can refer to both animate and inanimate referents.
- Sabellic correlatives are not different from other branches in respect of the use of relative pronouns and headedness.
- Sabellic correlatives are base generated in the left periphery like Vedic.
- The Sabellic languages have internally headed relative clauses with fronted relative pronouns, which violates de Vries (2005: 154)' claimed universal of relative clause structure, i.e. internally headed relative clauses cannot also have fronted overt relative pronouns. This "universal" is also counterexemplified in Vedic.

Abbreviations

1 = first person, 2 = second person, 3 = third person, ABL = ablative, ACC = accusative, CONN = connective, DAT = dative, DEM = demonstrative, DU = dual, EMPH = emphatic, F = feminine, FUT = future, FUTI = future I, GEN = genitive, GDIVE = gerundive, IMPF = imperfect, IMP = imperative, IMPII = imperative II, INDECL = indeclinable, INF = infinitive, ITER = iterative, LOC = locative, M = masculine, N = neuter, NOM = nominative, NOMLZ = nominalizer, PASS =

passive, PIE = Proto-Indo-European, PL = plural, POST = postposition, PRF = perfect, PRS = present, PST = past, PTCP = participle, PV = preverb, QUOT = quotation, SUBJ = subjunctive, RV = Rig Veda, SG = singular, VOC = vocative

A Appendix: Sabellic Correlatives

Here are the other correlatives not cited in the paper:

(47) *uasor. uerisco. treblanir. porsi.*
vessels:NOM;PL;N gates:ABL;PL;N:POSP trebulan:ABL;PL;N which:INDECL
ocrer. pehaner. paca.
mountain:GEN;SG;M expiate:GDIVE on.the.account.of
ostensendi. eo. iso. ostendu. pusi.
exhibit:FUT.PASS;3PL those.onesNOM;PL thus IMPII;3PL that
pir. pureto. cehefi. dia.
fire:NOM;SG;N fire:ABL;SG;N:POST take:INF.PASS SUBJ.PASS;3SG
'The vessels at the Trebulan Gate which are to be exhibited for the purification of the mount he shall so exhibit as to cause fire to be kindled from fire.' (Umbrian: VIa 19)

(48) **puře**. **teřte** **eru emantur**
which:INDECL give:PRS.PASS;3SG he accept:SUBJ.PRS.PASS;3PL
herte
will:FUTI;3SG
'Whatever are offered, he shall examine whether any of them should be accepted.' (Umbrian: Va 7)

B Appendix: Adverbial Type in Sabellic?

The follow Oscan example might show that a relative clause can function as a causal adverbial clause:

(49) *suae. pis. censtom-en. nei. cebnust.*
if anyone:NOM;SG;M census:ACC;SG;M:POSP not come:FUT;PRF;3SG
dolud. mallud. in(im). eizeic.
deceit:ABL;SG;M wrongful:ABL;SG;M and this:LOC;SG;N
uincter. esuf. comenei.
win:PRS;PASS;3SG same:NOM;SG;M assembly.place:LOC;SG;N
lamatir. pr. meddixud. toutad.
flog:SUBJ;PASS;3SG PREP *meddix*:ABL;SG;M people:ABL;PL;F
praesentid. perum. dolum. mallom
present:PTCP;ABL;SG;F without deceit:ACC;SG;M wrongful:ACC;SG;M

in(*im*). *amiricatud. allo.* *famelo.* *in*(*im*).
and sale:ABL;SG whole:NOM;SG;F property:NOM;SG;F and
ei(*tuo*). *siuom.* *paei.* *eizeis.*
money:NOM;SG;F alltogether which:NOM;SG;F this:GEN;SG
fust. *pae.* *ancensto.* *fust.*
be:FUT.PRF;3SG which:NOM;SG;F not.listed:NOM;SG;F be:FUT.PRF;3SG
toutico. *estud.*
public:NOM;SG;F be:IMP;3SG

'But if anyone shall with wrongful deceit not have come to the census and is convicted of that, he himself should be flogged in the place of assembly, by virtue of the magistracy in the presence of the people, without wrongful deceit (of the magistrate) and the whole of his estate is to be sold and the whole of his property, which shall have been his, which will not have been listed, is to be public' (Oscan: Lu 1, 20-3)

The underlined clause *pae ancensto fust* literally means 'which will not have been listed', which can be interpreted as either a causal relative or a regular relative clause which modifies the head noun *famelo* 'property'. If it is a causal relative, meaning 'because it will not have been listed', we can compare it with adverbial relative clauses in Latin, as discussed in section 6.1. But if it is a regular relative, meaning only 'which will not have been listed', it can be included in type 2.1.

For comparative reasons, here is a Latin adverbial relative clause (from Gast & Schäfer 2012: 367):

(50) *erat iter tale, per quod vix tranquillum ab hostili metu agmen expediri posset*
'The road was such that a column (of soldiers), even when free from fear of an enemy, could hardly traverse it' (Liv. 35.30.4)

Because of the limited context of the Oscan example and lack of other similar examples in the Sabellic languages, it is difficult to decide if we actually have examples of adverbial relative clauses in these languages. The Sabellic languages most probably had them, but unfortunately there is no unambiguous evidence.

C Appendix: Vedic correlatives as base generated in the left periphery

Qu (2021) argues that Vedic correlative clauses are base generated, based on the following evidence: first, Vedic correlative clauses are not sensitive to island-effect; second, Vedic correlative structure can be coordinated with a

relative structure; third, R-expression in Vedic correlative clauses that coindexed with the correlate demonstrative pronoun does not violate Binding Condition C.

i. Vedic correlative clauses are not sensitive to island-effect, e.g.:

(51) *ví yé bhrā́jante súmakhāsaḥ*
PV REL:NOM;PL;M shine:PRS;3PL good.fighter:NOM;PL;M
r̥ṣṭíbhiḥ
spear:INS;PL;F

pracyāváyantaḥ ácyutā cit
move:ACT.PTCP;NOM;PL;M unmovable:ACC;PL;N even
ójasā]$_i$
power:INS;SG;N

manojúvaḥ yát marutaḥ (pro)$_i$
mind-swift:ACC;PL;F when Marut:VOC;PL;M
rátheṣu ā́
chariot:LOC;PL;M to

v̥ṛ̥ṣavrātāsaḥ pr̥̊ṣatīḥ áyugdhvam
bullish.troop:ACC;PL;M speckled:ACC;PL;F yoke:IMPF;2PL

'Those good battlers who flash out with their spears, stirring forth even the unstirrable by their power—
[w]hen, o Maruts, in a bullish troop you have yoked the mind-swift dappled mares to your chariots' (RV 1.85.4)

ii. Vedic correlative structure can be coordinated with a relative structure, e.g.:

(52) *yát vaḥ citrám*
REL:ACC;SG;N 2PL;GEN glittering:ACC;SG;N
yugé-yuge
every.generation:LOC;SG;M

návyam ghóṣāt ámartyam
new:ACC;SG sound:SUBJ;3SG immortal:ACC;SG;N

asmā́su tát marutaḥ yát ca
1PL;LOC DEM:ACC;SG;N Marut:VOC;PL;M REL:NOM.SG;N and

duṣṭáram *didhr̥̊tá* *yát* *ca*
difficult.to.pass:NOM;SG;N hold.firm:IMP;2PL REL:NOM;SG;N and
duṣṭáram
difficult.to.pass:NOM;SG;N

'What glittering, immortal (deed) of yours shall sound anew in every generation, o Maruts, fix that firm in us as well as [what is] (brilliance) difficult to surpass — and what is difficult to surpass' (RV 1.139.8defg)

iii. R-expression in Vedic correlative clauses that coindexed with the correlate demonstrative pronoun does not violate Binding Condition C, e.g.:

(53) *yásmāt* *índrāt* *br̥̊hatáḥ* *kím caná īm*
REL:ABL;SG;M Indra:ABL;SG;M lofty:ABL;SG;M nothing PT
r̥̊té
without

víśvāni *asmin* *sámbhr̥̊tā* *ádhi*
all:NOM;PL;N DEM:LOC;SG;M gather:PASS.PTCP;NOM;PL PV
*vīrya*à
manliness:NOM;PL;N

'Lofty Indra, without whom there is nothing, in him all facets of a hero are gathered' (RV 2.16.2ab)

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