

Appendix II

Interrogatives as relativization markers in Indo-European

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Abstract

This document provides descriptions of relative marking for each language of the sample, as well as a more detailed explanation of coding conventions. It was used as the basis of the data provided in Appendix I. The data can also be found at <https://benjamins.com/catalog/dia.19030.aud>.

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1 Definitions and coding conventions

1.1 Working definitions

This study uses definitions tailored to the question at hand, to the specific characteristics of Indo-European languages, and with the available material in mind. The goal of this study is to better understand the distribution of IE in space and time. Even though Indo-European languages display a range of constructions and markers when it comes to relativization, only a subset of those will be considered here. For example, in some languages there are unmarked relative clauses, but since interrogative pronouns are never zero, these cases are excluded. Furthermore, while this is not true cross-linguistically, most IE languages have a finite construction for expressing relativization which facilitates comparison. As mentioned above, the data is collected primarily from grammars and grammar sketches and thus necessarily limited to the descriptions and examples provided there. Focusing on a subset of RC constructions allows for a broader sample.

Relativization and its markers: Relativization is defined here as finite clausal noun modification, or in other words, noun modification that includes a finite predicate and its argument(s). This definition works well for Indo-European languages, in which word class distinctions are quite rigid. It is clear that such a definition could not serve as the basis for a more extensive cross-linguistic study. For practical and theoretical reasons, the present study is restricted to relative clauses with an overtly expressed head noun (i.e. to stage 4 in Heine & Kuteva 2006's proposal), as in 1a and 1b.

- (1) a. *The woman [who is sitting at the table] is my sister.*
b. *Do you have the pencil [that I gave you this morning]?*

Headless relative clauses are difficult to delimit from other types of dependent clauses, such as complement clauses (cf. 2a) including indirect questions (cf. 2b). Note that 2b can also be interpreted as a headless relative, i.e. it is indeterminate between the two interpretations. Headless relative clauses are also often used for generic statements that include some marking or construction specific to indefiniteness, as in 2c. Furthermore, headed relative clauses are easier to identify in texts and examples if there is no syntactic description (which is common for ancient IE languages, see below), and thus there is more material available for comparison.

- (2) a. *I heard [what you said].*
b. *I wonder [where my pencil is].*
c. *[Whoever told you this] is a liar.*

This study does not systematically investigate the syntax of the relative clauses in question. This is primarily due to the lack of description and materials on the syntax of ancient IE languages, which means that syntactic information such as the exact construction, could only be reliably collected from (most) modern languages. I thus focus on the form and morphology of the marker(s) involved.

In many languages, subordinate clauses including relative clauses can also be unmarked. While this is certainly an interesting variable that warrants further investigation, it is not directly addressed in the present study since content questions can never be zero-marked, so there would be nothing to compare in such cases.

The majority of IE languages have finite relative clauses, either as the primary or at least as one of the available strategies. Finite in this context simply means that the verbal predicate takes the same inflection it would in a main clause. Other strategies present in many IE languages include the use of participles, i.e. verbal predicates that have taken some properties otherwise associated with nominals, such as case and number marking. In a few languages surveyed here, this is the main strategy for relative clauses. These participial or less finite constructions, however, do not have additional marking of the clause boundary, and thus are not systematically included.

Interrogative: Any form that is used to form a content question (as opposed to a polar question), such as ‘what?’ and ‘where?’ in English. Note that I did not collect all the interrogatives of a given language, but only those that overlap with a relativization marker. In the languages that have case marking, there can be a division in the morphosyntax of interrogatives used for core roles and those used for adjuncts/obliques: the former are usually inflected for case (and number and/or noun class), while the latter are not.

Complementizer: A form that marks a complement clause, i.e. a clause that functions as an argument of a verb, as in 3a. The form only signals that there is a clausal argument, and does not have any additional semantic content. Conjunctions or interrogatives used in indirect questions, such as *why* in 3b, are thus not considered complementizers for the purposes of this study.

- (3) a. *I_A know [that she is coming]_O*.
b. *I_A wonder [why she didn't come]_O*.

1.2 Glossing and orthographical conventions

The material presented here is taken from descriptive grammars and grammar sketches, unless otherwise indicated.

Glosses are taken from the source with minor changes for the sake of consistency. These changes are:

- Forms used as relativizers and relative pronouns are glossed as REL throughout.
- Forms used as complementizers are glossed as COMP throughout.
- Interrogatives are glossed by the respective English *wh*-question word.

This means that with respect to the topic under investigation, one gloss corresponds to one function, rather than one form. This should help with demonstrating when one form covers two or more the functions investigated in this study. If the source does not provide glossing, I added word-by-word translations (but not fine-grained glossing in most cases).

Orthographical practices are taken over from the source as well and not normalized across or within languages. Readers should keep this in mind, especially when comparing forms of closely related languages.

1.3 Coding

For each language, all forms that can be used to mark relative clauses were collected. These forms were then compared to content interrogatives in the same language and evaluated as to whether they are identical, they partially overlap, or they are completely different. They were also compared to complementizers (if they exist) with respect to the same question of overlap.

In languages that have inflected forms, the database only contains the nominative singular forms of all inflectional classes. The full paradigms are provided in this appendix. Examples of full clauses are provided where available in the grammar and for illustrative purposes only.

In addition, some other basic information for each relative clause marker is coded for: number of cases (if any), number of noun classes (if any), number marking, genre (written vs. spoken vs. both).

- number of cases: if there are inflectional classes and/or number distinctions, the highest number found in the paradigm is given; counted forms, not case labels, i.e. if there are syncretic forms these count as one
- number of noun classes: number of distinct inflectional classes
- number of number distinctions: if there are inflectional classes, the highest number found in the paradigm is given

For each marker, I note which proto-Indo-European form it can be traced back to, as far as this information is available. For reasons of scope, I did not attempt to provide the exact etymology, such as including the exact case form or addition of other morphemes. I assigned each form to one of the following values:

- a form of the PIE interrogative **k^wi-/k^wo-* – indicated as KW
- a form of the PIE deictic **yo-* – indicated as YO
- a form of the PIE demonstrative **so-/to-* – indicated as TO
- a loanword – indicated as L
- unknown/unclear – indicated as NA

I will exemplify the coding process with Classical Latin: Based on the paradigm of the relative pronoun in Latin, it is coded as having 5 cases, 3 noun classes, and 2 number distinctions. The five case forms derive from the fact that highest number of case forms within one subpart of the paradigm is five, i.e. for masculine and feminine singular. Note that syncretism across noun classes, such as the dative singular form *cuius* being used for all three classes, do not affect this count. Neither do syncretisms across number distinctions, such as *quae* being used both as the plural neuter form and the singular feminine form.

There are two indefinite pronouns which are derived from the relative pronoun and declined exactly the same. They are *quīcumque*, *quaecumque*, *quodcumque* and *quisquis*, *quidquid* (Panhuis 2006:38).

Table 1: Latin relative pronoun paradigm (Panhuis 2006:37)

	SG			PL		
	M	F	N	M	F	N
NOM	<i>qui</i>	<i>quae</i>	<i>quod</i>	<i>qui</i>	<i>quae</i>	<i>quae</i>
GEN	<i>cuius</i>	<i>cuius</i>	<i>cuius</i>	<i>quōrum</i>	<i>quārum</i>	<i>quōrum</i>
DAT	<i>cui</i>	<i>cui</i>	<i>cui</i>	<i>quibus</i>	<i>quibus</i>	<i>quibus</i>
ACC	<i>quem</i>	<i>quam</i>	<i>quod</i>	<i>quōs</i>	<i>quās</i>	<i>quae</i>
ABL	<i>quō</i>	<i>quā</i>	<i>quō</i>	<i>quibus</i>	<i>quibus</i>	<i>quibus</i>
	5	5	4	4	4	3

Table 2: Latin interrogative pronoun paradigm (Panhuis 2006:38)

	SG		PL		
	M/F	N	M	F	N
NOM	<i>quis</i>	<i>quid</i>	<i>qui</i>	<i>quae</i>	<i>quae</i>
GEN	<i>cuius</i>	<i>cuius</i>	<i>quōrum</i>	<i>quārum</i>	<i>quōrum</i>
DAT	<i>cui</i>	<i>cui</i>	<i>quibus</i>	<i>quibus</i>	<i>quibus</i>
ACC	<i>quem</i>	<i>quid</i>	<i>quōs</i>	<i>quās</i>	<i>quae</i>
ABL	<i>quō</i>	<i>quō</i>	<i>quibus</i>	<i>quibus</i>	<i>quibus</i>

Latin relative pronouns are not used as complementizers. Complement clauses in Latin exhibit different coding strategies, such as the conjunction *ut*, an infinitive, or a participle, among others. The relative pronoun is thus coded as not being used as a complementizer.

The following sections provide concise descriptions of the relativization marking in each of the 99 languages of the sample. The sections correspond to the primary branches of Indo-European arranged by when they branched off from the parent language, starting with earliest. Within the sections, the languages are arranged by subbranch and within each subbranch by age of attestation and lastly by alphabet. The genealogical classification follows that of Glottolog (Hammarström et al. 2020).

2 Anatolian

2.1 Hittite (1750-1200 BCE)

Hittite uses the interrogative pronoun *kuiš* ‘who, what; which’ to mark relative clauses, cf. 4a and 4b. It is inflected for case, animacy, and number. In both interrogative and relative function, it can also be used attributively. The interrogative *kuwapi* ‘where’ is also used in RCs. Question words either appear at the beginning of the clause or in second position, and do not remain *in situ*. The same is true when *kui-* is used as a relative clause marker (Hoffner & Melchert 2008:350-353). The inanimate form *kuit* is also used as a complementizer (Hoffner & Melchert 2008:415), cf. 4c.

- (4) a. *kuit iya-nun?*
what do.PST-1SG
'What did I do?' (Hoffner & Melchert 2008:350)
- b. *nu NUMUN.HI.A [kue human šanhu-ta]*
so seed.PL REL.NOM.PL all roast.PST-3SG
'so the seeds which were all roasted' (Hoffner & Melchert 2008:425)
- c. *mahhan=ma LÚ.MEŠ ^{URU}Aššur auēr [URU.DIDL.HI.A BÀD=kan kuit zahhiyaz katta daškeuwan teħħ-un]*
when=and person.PL Assyrian see.PST.3PL city.PL fortified=part COMP battle.ABL
down take.SUP put.PST-1SG
'when the Assyrians saw that I had begun to capture fortified cities in battle' (Hoffner & Melchert 2008:426)

Table 3: Hittite interrogative-relative pronoun (Hoffner & Melchert 2008:149)

	SG	PL
NOM-ACC.INAN	<i>kuit</i>	<i>kue</i>
NOM.ANIM	<i>kuiš</i>	<i>kuiēš</i>
ACC.ANIM	<i>kuin</i>	<i>kuiuš</i>
GEN	<i>kuēl</i>	-
DAT-LOC	<i>kuedani</i>	<i>kuedaš</i>
ABL		<i>kuēz(za)²</i>

2.2 Cuneiform (1650-1200 BCE) and Hieroglyphic (1100-700 BCE) Luwian

Luwian is attested in two different scripts, Cuneiform and Hieroglyphs. It is unclear whether these two forms should be regarded as different dialects or just a temporal stratification, since they are attested in different time periods (Melchert 2003:171).

Relative clauses are marked by the interrogative pronoun *kwi-/kwa-* ‘who, what’, which is inflected for case, animacy, and number, cf. Table 4. In relative clauses, this pronoun is not necessarily preposed, but can also appear *in situ*, as in 5. Various subordinating conjunctions are derived from the interrogative-relative pronoun, such as *kwati* ‘if; so that’ (Payne 2004:27),

²The ablative case is number-indifferent.

but there is no information on complement clauses. It is thus not clear whether a form of this pronoun was also used as a complementizer.

- (5) *a=wa amu tama-ha za harnisan-za [laka-wani-s=ha=wa hapatai-s
and=QUOT 1SG build=1SG.PRET this fortress-ACC.SG.N Lakaean-ETH-NOM.SG.C=CONN=QUOT river.land-NOM.SG.C
kwanza izi=ta] REL.ACC.SG.N make-3SG.PRET*
'And I myself built this fortress which the Lakaean river-land made.' (Payne 2004:55-56)

Table 4: Cuneiform and Hieroglyphic Luwian interrogative-relative pronoun (Melchert 2003:191, Payne 2004:27)

	Hieroglyphic Luwian		Cuneiform Luwian	
	SG	PL	SG	PL
NOM-ACC.INAN	<i>kwa(n)za</i>	<i>kwaya</i>	<i>(kui)</i>	-
NOM.ANIM	<i>kwis</i>	<i>kwinzi</i>	<i>kuīš</i>	<i>kuīnzi</i>
ACC.ANIM	<i>kwin</i>	<i>kwinzi</i>	<i>kuīn</i>	<i>kuīnz(a)</i>
DAT-LOC	<i>kwati</i>	<i>kwatanza</i>		-
ABL-INST		-		<i>kuwātī</i> ³

3 Tocharian A and B (600 - 900 CE)

Tocharian A and B are two closely related extinct languages, formerly spoken in the Tarim Basin (present-day China). They are sometimes referred to as East Tocharian (A) and West Tocharian (B), respectively. In both Tocharian A and B the interrogative pronoun 'what, who' is used to mark relative clauses. Although the paradigm is somewhat reduced in comparison to that of other pronouns and nouns, it does inflect for case, but not for number or gender. The pronoun is composed of the root *ku-* and inflected forms of the proximal demonstrative *su*, see Table 5. The former part comes from PIE **kʷi-/kʷo-*, while the latter goes back to the PIE demonstrative **so-/to-*. In Tocharian A, an element *ne* is added in relative clauses, but it does not necessarily appear directly after *kus* (indicated by a = in the table).

In addition, there are attributive interrogative-relative pronouns ('which') in both languages. There are gaps in the paradigm due to limited attestation, and one of them is only found in Tocharian B (see Table 6). Their origin is unclear, but they also consist of the demonstrative *su* as their second part (Krause & Thomas 1960:165-167).

Although *k_u-se* and *ku-s-ne* do appear in other subordinate clauses apart from relative ones, this is a relatively late development in both languages and remains rare. Moreover, they almost never appear in complement clauses (Hackstein 2012:120).

³The ablative case is number-indifferent.

Table 5: Tocharian interrogative-relative pronoun ‘what, who’ (Krause & Thomas 1960:165)

	B	A
NOM	<i>k_u-se</i>	<i>ku-s=ne</i>
NOM.PL	-	<i>ku-ce=ne</i>
OBL	<i>k_u-ce</i>	<i>ku-c=ne</i>
GEN	<i>ket(e)</i>	<i>ke=ne</i>

Table 6: Tocharian attributive interrogative-relative pronouns ‘which’ (Krause & Thomas 1960:166)

B			A			B only		
	M	M	F		M	F	N	
NOM.SG	<i>intsu</i>	<i>äntsam̥</i>	-		NOM.SG	<i>mäksu</i>	<i>mäksā_u</i>	<i>mäktu</i>
OBL.SG	<i>iñca_u, iñcew</i>	<i>äñcam̥</i>	<i>äntām̥</i>		OBL.SG	<i>mäksceu</i>	<i>mäktā_u, mäktāw</i>	<i>mäktu</i>
GEN.SG	-	<i>äñcanik</i>	-		GEN.SG	<i>mäkcwi, mäkci</i>	-	-
NOM.PL	-	-	-		NOM.PL	<i>mäkai</i>	<i>mäktom̥</i>	-
OBL.PL	-	-	-		OBL.PL	-	-	-
GEN.PL	-	<i>äñcesni</i>	-		GEN.PL	<i>mäkcas</i>	<i>mäktoynas</i>	-

4 Armenian

4.1 Classical Armenian (400-1800 CE)

In Classical Armenian, the interrogative pronoun *or* ‘which’ is used for marking relative clauses. It is inflected for case and agrees with the head noun in number. Armenian lost its gender system, so there is no gender agreement and the same form is used for all antecedents. There are multiple suggestions with respect to the etymology of this pronoun and there is no consensus among scholars yet. Godel (1975:35) proposes that it comes from **yoro*-, an extended form PIE **yo*- (the relative pronoun used in most of Indic languages, among others). A more recent proposal by Kölligan (2006) argues that it is derived from the PIE interrogative **kʷo*- combined with a focus particle. An in depth discussion and assessment of these proposals goes beyond the scope of this study, but it is worth noting that in the argument for the interrogative source is predominantly based on structural similarity to Slavic languages and there is little evidence for the sound laws involved. Since the use of interrogatives in relative clauses spreads easily to other languages – even non-IE ones – it appears that there are more arguments in favor of a non-interrogative origin.

Although there is no differentiation between the interrogative and relative pronoun paradigm *per se*, but the plural forms are predominantly used in relative clauses (Jensen 1959:86-87). The interrogative-relative pronoun is not used as complementizer (whose forms are *zi* and *et'(e)*) (Jensen 1959:201-202).

- (6) a. *or tagawor?*
 which king
 ‘Which king?’⁴ (Jensen 1959:86)

Table 7: Classical Armenian interrogative-relative pronoun (Jensen 1959:84-85)

	SG	PL
NOM	<i>or</i>	<i>ork'</i>
ACC	<i>or</i>	<i>oro</i>
GEN	<i>oroy</i>	<i>orots'</i>
DAT	<i>orum</i>	<i>orots'</i>
LOC	<i>orum</i>	<i>oro</i>
ABL	<i>orme</i>	<i>orots'</i>
INS	<i>orov</i>	<i>orovk'</i>

- b. *ark'* [ork' matnets'in zandzins]
 man.NOM.PL REL.NOM.PL give.up.AOR.3PL soul.ACC.PL
 'men who gave their souls away' (Jensen 1959:209)

4.2 Modern Eastern Armenian

Modern Eastern Armenian relative clauses continue without much change from Classical Armenian: they are marked by the interrogative pronoun *or* ‘which’. The paradigm has been further reduced and restructured compared to Classical Armenian, cf. Table 8. Furthermore, in spoken language, and increasingly also in written language, the singular form is commonly used for plural head nouns. For inanimate antecedents the interrogative ‘what’ *inč* is sometimes used as well (Dum-Tragut 2009:155-156). While this was not the case in Classical Armenian, the nominative singular of the relative pronoun *or* is now also used as a complementizer, but is invariable in that function (Dum-Tragut 2009:425). The three different uses of *or* are illustrated below in examples 7a-7c.

- (7) a. *Hay or grol-i-n es šat sir-um?*
 Armenian which.NOM.SG author-DAT-DEF be.2SG much love-PTCP.PRS
 'Which Armenian author do you like very much?' (Dum-Tragut 2009:150)
- b. *Mard-ik k-an [or ays parz ban-ě č'-en haskan-um].*
 man-PL exist-PRS.3SG REL.NOM this simple thing.NOM-DEF NEG-be.3PL understand-PTCP.PRS
 'There are people who don't understand this simple thing.' (Dum-Tragut 2009:156-157)
- c. *es ls-ec'i [or Vardan-ě gal-is ē].*
 1SG.NOM hear-AOR.1SG COMP Vardan.NOM-DEF come-PTCP.PRS be.3SG
 'I heard that Vardan is coming.' (Dum-Tragut 2009:427)

⁴Transliteration, word-by-word translation, and free translation into English by SA.

Table 8: Eastern Armenian interrogative-relative pronouns (Dum-Tragut 2009:148, 150)

	which?/ REL		what?/REL.INAN	
	SG	PL	SG	PL
NOM	<i>or(ē)</i>	<i>orонk'</i>	<i>inc'</i>	<i>inc'er</i>
DAT	<i>ori(n)</i>	<i>orонc'</i>	<i>inc'i(n)</i>	<i>inc'eri(n)</i>
ABL	<i>oric'</i>	<i>orонc'ic'</i>	<i>inc'ic'</i>	<i>inc'eric'</i>
INST	<i>orov</i>	<i>orонc'ov</i>	<i>inc'ov</i>	<i>inc'evov</i>
LOC	<i>orum</i>	<i>orонc'um</i>	<i>inc'um</i>	<i>inc'erum</i>

5 Greek

5.1 Ancient Greek (500-300 BCE)

In Ancient Greek, the relative pronoun, inflected for case, gender, and number, is a specialized one not used in any other function. It comes from PIE *yo- and is cognate with the Sanskrit relative pronoun, among others (Schwyzer 1990a:614). The main clause optionally has a coreferential demonstrative pronoun (Schwyzer 1990b:640).

Occasionally, these demonstrative pronouns, which go back to PIE *so-/to-, are used as relative pronouns as well. They were even used in indirect questions in some instances. This remains rare in the Attic dialect, in which these constructions only appear in a few vulgar inscriptions (Schwyzer 1990b:642).

The neuter singular form *hó* is used as a complementizer as well, either by itself or in combination with the particle *te* or the interrogative *ti* (Schwyzer 1990b:645-646). The latter is the most frequent complementizer and also the neuter singular form of the indefinite pronoun *hóti* ‘whatever’. Uses of *ho* as a complementizer remain rare.

5.2 Medieval Greek (600-1500 CE)

RC marking in Medieval was very much in flux, or as Browning (1983:61) states: “The relative pronoun was in a state of uncertainty, and viable new forms were not established until following period.” The old relative pronoun *hós* was still around, but used only infrequently. The more common options were the former indefinite pronoun *hóstis*, the interrogative *tís*, and the definite article in non-nominative cases.

The use of the indefinite pronoun in headed relative clauses is already attested in classical times, but then only rarely. This indefinite pronoun is a compound form, consisting of the relative

Table 9: Classical Greek relative pronoun (Schwyzer 1990a:614-615)

	M		F		N	
	SG	PL	SG	PL	SG	PL
NOM	<i>hós</i>	<i>hoí</i>	<i>hé</i>	<i>hai</i>	<i>hó</i>	<i>há</i>
ACC	<i>hón</i>	<i>hoús</i>	<i>hén</i>	<i>hás</i>	<i>hó</i>	<i>há</i>
GEN	<i>hoû</i>	<i>hôñ</i>	<i>hê</i>	<i>hôñ</i>	<i>hoû</i>	<i>hôñ</i>
DAT	<i>hō</i>	<i>hoîs</i>	<i>hē</i>	<i>haîs</i>	<i>hō</i>	<i>hoîs</i>

Table 10: One of the Medieval Greek relative pronouns

	M		F		N	
	SG	PL	SG	PL	SG	PL
NOM	<i>hóstis</i>	<i>hoítines</i>	<i>hétis</i>	<i>haitines</i>	<i>hóti</i>	<i>hátina</i>
ACC	<i>hóntina</i>	<i>houéstinas</i>	<i>héntina</i>	<i>hástinas</i>	<i>hóti</i>	<i>hátina</i>
GEN	<i>hoûtinos</i>	<i>hôntinōn</i>	<i>hêstinos</i>	<i>hôntinōn</i>	<i>hoûtinos</i>	<i>hôntinōn</i>
DAT	<i>hôtini</i>	<i>hoistisi(n)</i>	<i>hêntini</i>	<i>haistinas</i>	<i>hôtini</i>	<i>hoistisi(n)</i>

and interrogative pronoun as its first and second part respectively. Both parts are inflected the same way as usual, cf. Table 10. The nominative-accusative neuter singular form *hóti* is used as a complementizer like in Ancient Greek, only now the same form is used in relative clauses.

5.3 Modern Greek

None of the RC markers from Medieval Greek survived into modern times. In Modern Greek, there are two options to mark RCs: the invariable interrogative *pou* ‘where’, and the inflected *o opoios*, which always appears together with the definite article. The former is the default option, while the latter is more common in formal written contexts but also appears in the spoken language, especially with obliques (Holton et al. 2012:532). The two markers are illustrated in 8b and 8c. The invariable *pou* is also used as a complementizer, cf. 8d.

- (8) a. *Poú na phitépsoume to yiasemí?*
where to plant.we the jasmin
'Where should we plant the jasmine?'⁵ (Holton et al. 2012:508)
- b. *O kathiyitís [pou mas ékane istoría] ítan polí kalós*
the teacher REL us taught history is very good
'The teacher who taught us history was very good.' (Holton et al. 2012:532)
- c. *I sizítisi [tin opía káname] prépi na míni metaxí mas*
the conversation ART REL we.had must to stay between us
'The conversation which we had must remain between us.' (Holton et al. 2012:533)
- d. *I María metániose [pou den píye sto parti]*
the Maria regretted COMP not went to pary
'Maria regretted that she didn't go to the party.' (Holton et al. 2012:544)

6 Gheg and Tosk Albanian

Tosk Albanian is spoken in the south and forms the basis of Standard Albanian. Gheg Albanian is mainly spoken in the north. Although they form two distinct dialect clusters, the two varieties are identical with respect to relative clause marking and will thus be discussed jointly. (Old Albanian is only fragmentarily attested and thus cannot be included in this study.)

The relativizer *që* is invariable and is used for subject and direct object relatives, but is the only relative clause marker used in the spoken language, where it also appears with obliques

⁵Morpheme segmentation and word-by-word translation by SA.

Table 11: Albanian attributive relative pronoun ‘which’ (Newmark et al. 1982:279)

	M		F	
	SG	PL	SG	PL
NOM	<i>i cili</i>	<i>të cilët</i>	<i>e cila</i>	<i>të cilat</i>
ACC	<i>të cilin</i>	<i>të cilët</i>	<i>të cilën</i>	<i>të cilat</i>
DAT-ABL	<i>të cilit</i>	<i>të cilëve</i>	<i>së cilës</i>	<i>të cilave</i>
GEN	<i>i të cilit</i>	<i>i të cilëve</i>	<i>i së cilës</i>	<i>i të cilave</i>

Table 12: Albanian attributive interrogative pronoun ‘which’ (Newmark et al. 1982:279)

	M		F	
	SG	PL	SG	PL
NOM	<i>cili</i>	<i>cilët</i>	<i>cila</i>	<i>cilat</i>
ACC	<i>cilin</i>	<i>cilët</i>	<i>cilën</i>	<i>cilat</i>
DAT-ABL	<i>cilit</i>	<i>cilëve</i>	<i>cilës</i>	<i>cilave</i>
GEN	<i>i cilit</i>	<i>i cilëve</i>	<i>i cilës</i>	<i>i cilave</i>

(Newmark et al. 1982:278). It serves as a general complementizer, too (Newmark et al. 1982:305), cf. 9a and 9b. It is not used as an interrogative, although it does bear a close resemblance to the invariable interrogative *cë* ‘what’. Its historical origins are not clear either: it could be derived from a form of PIE **kʷo-* or it could be borrowed from Latin *que* (Orel 2000:245-246).⁶

The attributive relative pronoun *i cili* ‘which’ inflects for case, gender, and number, and has the same forms as the interrogative except for the addition of the definite nominal linker *i/e*, compare Tables 11 and 12. Note that the genitive is not a case form, but rather consists in the dative form combined with an additional linker. It is included in the paradigm below for illustrative purposes.

- (9) a. *Janë gjurmët e lotëve rrëke, [që ranë gjatë shekujve].*
 they are traces of tears torrent REL fell long centuries
 ‘They are the tracks of torrents of tears that fell in the course of centuries.’⁷ (Newmark et al. 1982:279)
- b. *Por detyra ime si komunist është [që ta shpejtoj këtë ditë]...*
 but duty my as communist it.is COMP to accelerate this day
 ‘But my duty as a communist is to accelerate (lit.: that I speed) this day..’ (Newmark et al. 1982:305)

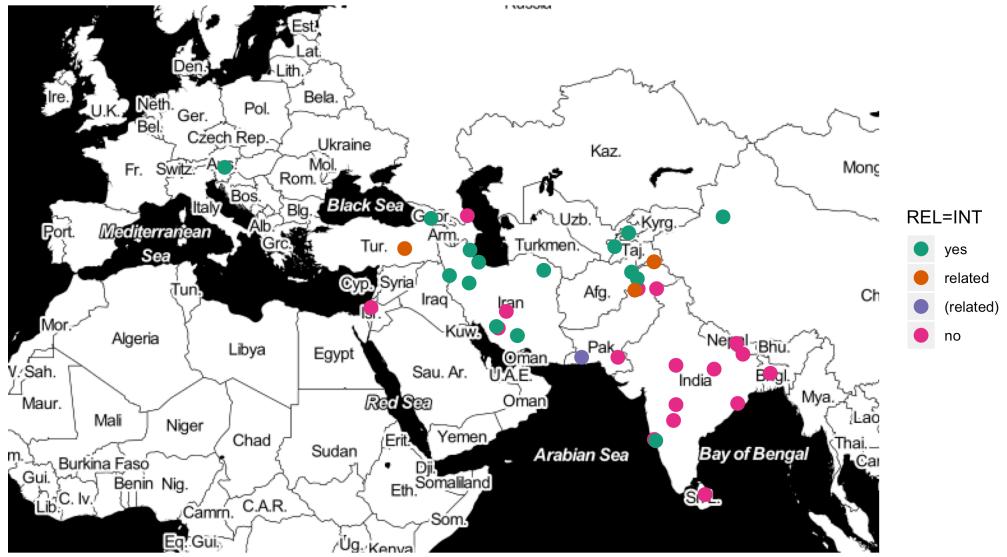


Figure 1: Geographical distribution of interrogatives as RC markers in Indo-Iranian⁸

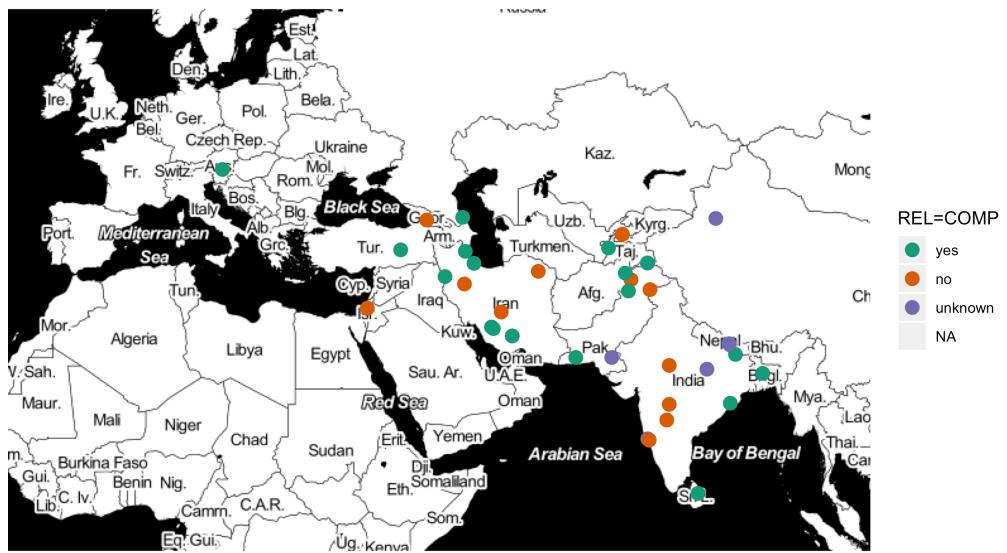


Figure 2: Geographical distribution of relatives used as complementizers in Indo-Iranian

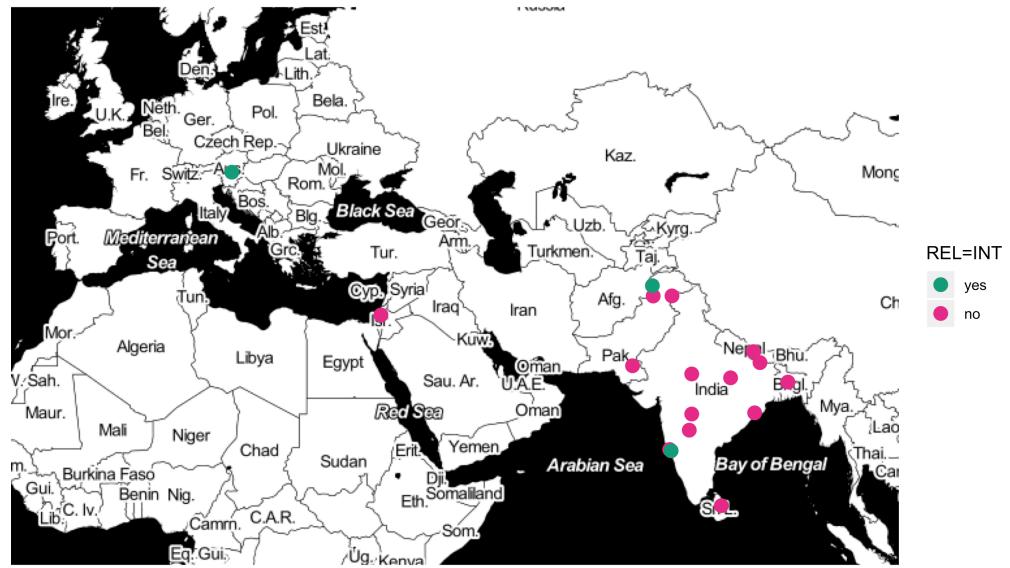


Figure 3: Geographical distribution of interrogatives as RC markers in Indic

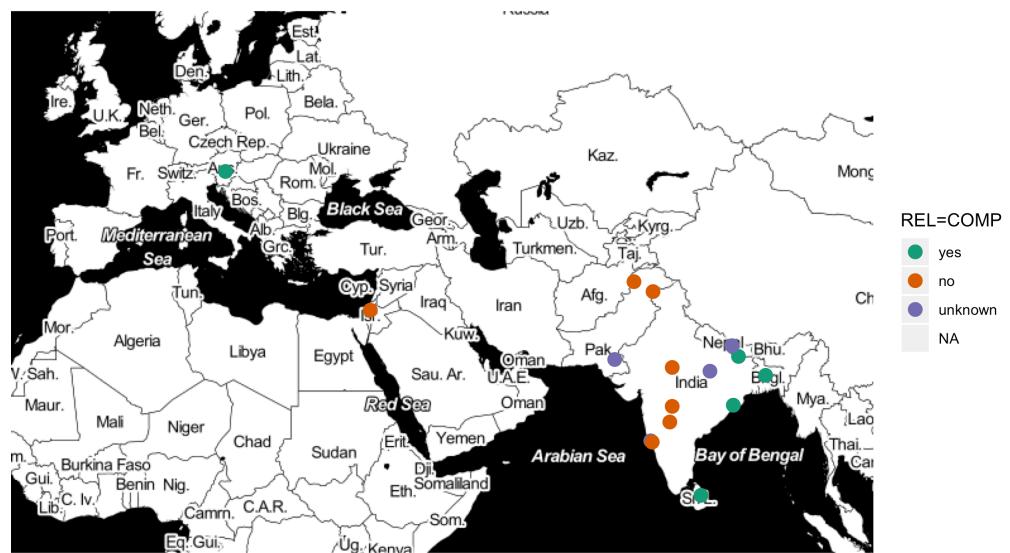


Figure 4: Geographical distribution of relatives used as complementizers in Indic

Table 13: Pāli relative pronoun (Duroiselle 1997:74)

	M		F	
	SG	PL	SG	PL
NOM	<i>yo</i>	<i>ye</i>	<i>yā</i>	<i>yā</i>
ACC	<i>yam</i>	<i>ye</i>	<i>yam</i>	<i>yā</i>
GEN-DAT	<i>yassa</i>	<i>yesam</i>	<i>yāya</i>	<i>yāsam</i>
INS	<i>yena</i>	<i>yehi</i>	<i>yāya</i>	<i>yāhi</i>
ABL	<i>yasmā</i>	<i>yehi</i>	<i>yāya</i>	<i>yāhi</i>
LOC	<i>yasmin</i>	<i>yesu</i>	<i>yāyam</i>	<i>yāsu</i>
NOM-ACC.N	<i>yam</i>	<i>yāni</i>		

7 Indo-Iranian

7.1 Indic

7.1.1 Pāli

The relative pronoun in Pāli is derived from PIE **yo-* and is a dedicated relative pronoun not used as an interrogative (Oberlies 2001:186–187). Compared to earlier Indic languages (cf. 7.1.17), there is a first reduction of the paradigm: the dual number is no longer present, and the genitive and dative are reduced into one case form, cf. Table 13.

In the materials available to me, complement clauses are not described and there are no examples of full clauses. It is thus unclear whether the neuter form of the relative pronoun also served as a complementizer, like in Sanskrit, or not.

7.1.2 Maithili

In Maithili, as in most Indic languages, relativization is expressed by a correlative construction that involves both a relative and a correlative pronoun, cf. Tables 14 and 15. Neither of those is an interrogative. The nominative singular form, which is the same across all three classes, is also used as complementizer, although this is not the only possible strategy (Yadav 1996:119,234).

- (10) a. [je bidyarthi kailh ae-llæ-l r̥h-əith][se bimar p̥airge-l-ah]
 REL.NOM student yesterday come-PRF AUX-PST[3.HUM] CORR.NOM sick lie go-PST[3.HUM]

‘The student who came yesterday got sick.’ (Yadav 1996:119)

- b. bujha-it əich [je r̥mes ja-e-bəla ch-əith]
 appear-IMPF AUX.PRS[3.NHUM] COMP Ramesh go-INF-about AUX.PRS[3.HUM]
 ‘It appears (to me) that Ramesh is about to go.’ (Yadav 1996:234)

⁶On a side note, the interrogative *kush* ‘who’ is a compound form of PIE **kʷo-* and the demonstrative **so-*, just like the Tocharian interrogative pronouns.

⁷Word-by-word translations by SA.

⁸This and all the following maps in the paper have been created in R with the ggmap package (Kahle & Wickham 2013).

Table 14: Maithili relative pronouns (Yadav 1996:117)

HUM.HON		HUM		INANIM		
	SG	PL	SG	PL	SG	PL
NOM	<i>je</i>	<i>je-səb</i>	<i>je</i>	<i>je səb</i>	<i>je</i>	<i>je səb</i>
ACC	<i>jinka</i>	<i>jinka səb kẽ</i>	<i>zekra</i>	<i>zekra səb kẽ</i>	<i>jahi kẽ</i>	<i>jahi səb kẽ</i>
INSTR	<i>jinka sã</i>	<i>jinka səb sã</i>	<i>zekra</i>	<i>zekra səb sã</i>	<i>jahi sã</i>	<i>jahi səb sã</i>
GEN	<i>jinkər</i>	<i>jinka səbh-ək</i>	<i>zekər</i>	<i>zekra səbh-ək</i>	<i>jahiki</i>	<i>jahi səbh-ək</i>
LOC	<i>jinka me</i>	<i>jinka səb me</i>	<i>zekra me</i>	<i>zekra səb me</i>	<i>jahi me</i>	<i>jahi səb me</i>

Table 15: Maithili correlative pronouns (Yadav 1996:118)

HUM.HON		HUM		INANIM		
	SG	PL	SG	PL	SG	PL
NOM	<i>se</i>	<i>se-səb</i>	<i>se</i>	<i>se səb</i>	<i>se</i>	<i>se səb</i>
ACC	<i>tinka</i>	<i>tinka səb kẽ</i>	<i>tekra</i>	<i>tekra səb kẽ</i>	<i>tahi kẽ</i>	<i>tahi səb kẽ</i>
INSTR	<i>tinka sã</i>	<i>tinka səb sã</i>	<i>tekra</i>	<i>tekra səb sã</i>	<i>tahi sã</i>	<i>tahi səb sã</i>
GEN	<i>tinkər</i>	<i>tinka səbh-ək</i>	<i>tekər</i>	<i>tekra səbh-ək</i>	<i>tahiki</i>	<i>tahi səbh-ək</i>
LOC	<i>tinka me</i>	<i>tinka səb me</i>	<i>tekra me</i>	<i>tekra səb me</i>	<i>tahi me</i>	<i>tahi səb me</i>

7.1.3 Sinhala

Relativization in Sinhala is expressed by a preposed non-finite verb form and not a pronoun, see examples 11a and 11b (Chandralal 2010:130-131). The same non-finite verb forms are used in other subordinate clauses. Complement clauses can have a head noun, usually *wittia* ‘fact’, in which case they are formed exactly like relative clauses. Otherwise the main clause is marked by an element *wagə* or *bawə* which are glossed as ‘that’ and referred to as formal nouns or quotative particles.

- (11) a. [darua-wə hoyə-nə] *amma*
 child-ACC search-PTCP mother
 ‘the mother who searches for her child’ (Chandralal 2010:131)
- b. [Chitra chitrə andi-nə] *bawə Ranjit dan-nəwa*
 Chitra pictures draw-PTCP that Ranjit know-IND
 ‘Ranjit knows that Chitra draws pictures.’ (Chandralal 2010:192)

7.1.4 Domari

Domari is spoken by traditionally nomadic communities in the Middle East and thus has been under considerable influence from various Arabic varieties. The grammar used here is based on the variety spoken in Jerusalem.

Relative clauses in Domari are marked by *illi*, a relativizer borrowed from Arabic. Interrogatives are cognate with those of other Indic (and IE languages more generally), and the relativizer is not used as such (Matras 2012:331). It is not used in complement clauses, which instead are marked by the complementizer *inn*, also borrowed from Arabic (Matras 2012:333).

- (12) *lak-ed-a ihi [illi ktib-k-ad-i kart-as-ta] bay-o-si mudīr-as-ki*
 see-PST-M this.F REL write-TR-PST-F letter-OBL.M-DAT wife-3SG-PRED.SG director-OBL.M-DAT
 ‘He realized that the one who had written the letters was the director’s wife.’ (Matras 2012:331)

7.1.5 Vlax Romani

Like Domari, Vlax Romani is spoken by traditionally nomadic people, but further to the west throughout much of Europe and shows influence from the languages it has been in close contact with, predominantly Greek and Slavic. This description is based on the variety spoken in Athens.

Relative clauses are marked by the interrogative *kaj* ‘where’. The same interrogative is also used for marking complement clauses and temporal clauses. While it might seem that this is pattern borrowing from Greek, which also uses ‘where’ as a relative clause marker (cf. 5.3), this is unlikely because the same overlap is present in many other varieties of Romani not in contact with Greek (Igla 1996:175). All modern Romani varieties are descended from Early Romani, which was in close contact with Greek (Matras 2004:19), and *kaj* is the most frequent RC marker. Matras (2004:113) states that the use of interrogatives in relative clauses can either be attributed to Proto-Romani as an areal feature of northwest India or later to the Balkanization of Early Romani. In the former case, it could be connected to the IRCs present in Dameli (cf. 7.1.12).

- (13) a. *Tu kaj sánas, me kána ródavas tut?*
 2SG.NOM where be.PST.2SG 1SG.NOM when search.1SG 2SG.ACC
 ‘Where were you, when I was looking for you?’⁹ (Igla 1996:163)
- b. *seráv me mamía [kaj phendás mage jekh masáli]*
 remember 1SG.NOM grandma REL tell.PST 1SG.DAT a fairy.tale
 ‘I remember my grandma who used to tell me fairy tales.’ (Igla 1996:175)
- c. *dikhlás e dunjáva [kaj pašliló and o mo kher]*
 people ART.DEF.OBL saw COMP sleep.PST in ART.DEF.OBL my house
 ‘People saw that he was sleeping in my house.’ (Igla 1996:177)

7.1.6 Ghāndārī

Ghāndārī is a northwestern Prākrit attested in texts dating to the 3rd BCE up until the 5th century CE. It was used in the Peshawar valley in modern-day Pakistan, on the border between the Iranian and Indic linguistic area, and is closely related to Sanskrit and Pāli.

In Ghāndārī, relative clauses are marked by a specialized relative pronoun *yo* which is inflected for case, gender, and number (Baums 2019) - although many forms of the paradigm are not attested, cf. Table 16. Information on the marking of complement clauses is not available, so we cannot know whether the relative pronouns have also been used in this function. Examples of full clauses are not presented in the materials available to me.

⁹Glossing by SA.

Table 16: Attested relative pronouns in Ghāndārī (feminine forms are unattested) (Baums 2019:16)

	SG.M	PL.M
DIR	<i>yo</i>	<i>ye</i>
ACC	<i>ya</i>	
INST	<i>yena</i>	<i>yehi</i>
DAT		
ABL	<i>yado</i>	
GEN	<i>yasa</i>	
LOC		

Table 17: Hindi relative pronoun (Kachru 2006:63)

	SG	PL
DIR	<i>jo</i>	<i>jo</i>
OBL	<i>jis</i>	<i>jin</i>
GEN	<i>jiska / jiskī</i>	<i>jiske</i>

7.1.7 Hindi

Relative clauses in Hindi are either expressed by a correlative construction or by one of three participial forms of the verb, cf. 14b. In correlative constructions, the RC contains a dedicated pronoun *jo* and the main clause a coreferential distal demonstrative *veh* (Kachru 2006:136-137), as in 14a. Both pronouns are inflected for case and number, cf. Table 17, and neither is used as an interrogative.

- (14) a. [*jo* bṛkī *dillī se aī* *he]* [**veh** *fiziks* *mēsod^h*
REL.DIR.ANIM girl.F.SG Delhi from come.PRF.F.SG PRS.SG DEM.DIST.DIR physics.OBL in research.M
kār rāhī he.]
do PROG.F PRS.SG
'The girl who has come from Delhi is doing research in physics.' (Kachru 2006:136)
- b. [*k^hat pār bēt^ha* **hua**] *admī koī upānyas pāt^h rāha t^ha*
cot.OBL on sit.PRF.M.SG PTCP man some novel read PROG.M.SG PST.M.SG
'The man sitting on the cot was reading some novel.' (Kachru 2006:137)

7.1.8 Bangla

Bangla makes use of a correlative construction, in which the relative clause is marked by a special relative pronoun and the matrix clause by the coreferential neutral demonstrative (David 2015:96-97). The head noun can appear in either the relative, cf. 15a, or the matrix clause. Neither of these forms are used as interrogatives (David 2015:104). This is the most frequent construction, although there are also participles that can be used for RCs. The nominative singular form of the relative pronoun *je* is also the general complementizer (David 2015:290), illustrated in 15b.

- (15) a. [*je* *boi-ta* *Tutul likhe-ch-e]* [*ami* *śe-ta* *pāchondo kor-i]*
REL.NOM.SG book-CLF Tutul write-PRF.PRS-3 1SG.NOM 3SG.NOM-CLF like do.PRS-1SG
'I like the book that Tutul wrote.' (David 2015:286)

Table 18: Bangla relative and correlative pronouns (David 2015:96-97)

relative	non-hon		hon		correlative	non-hon		hon	
	SG	PL	SG	PL		SG	PL	SG	PL
NOM	<i>je</i>	<i>jara</i>	<i>jini</i>	<i>jāra</i>	NOM	<i>še</i>	<i>tara</i>	<i>tini</i>	<i>tāra</i>
OBL	<i>jake</i>	<i>jaderke</i>	<i>jāke</i>	<i>jāderke</i>	OBL	<i>take</i>	<i>taderke</i>	<i>tāke</i>	<i>tāderke</i>
GEN	<i>jar</i>	<i>jader</i>	<i>jār</i>	<i>jāder</i>	GEN	<i>tar</i>	<i>tader</i>	<i>tār</i>	<i>tāder</i>

- b. *Nandita bol-l-o [je Fahim khæla-ṭa jitte-ch-e]*
 Nandita say-PST-3 COMP Fahim game-CLF win-PRF.PRS-3
 ‘Nahita said that Fahim is winning the game.’

(David 2015:291)

7.1.9 Nepali

The primary means of expressing a relative clause in Nepali is with participles. Correlative constructions with a relative pronoun exist, but are almost exclusively used for headless indefinite relative clauses, i.e. corresponding roughly to English ‘whoever/whatever’. They occasionally appear in headed relative clauses, but only in very formal literary language (Matthews 1984:187). A participial construction is illustrated in 16a. I was not able to find any information on the marking of complement clauses.

- (16) a. *[mai-le kin=eko] kitāp*
 1SG-ERG buy=NMLZ book
 ‘the book that I bought’

(Paudyal 2009:11)

7.1.10 Oriya

Oriya has correlative constructions with a relative pronoun and the corresponding distal demonstrative, as well as participial constructions to express relativization (Neukom & Patnaik 2003:329), cf. 17a and 17c. The relative pronoun only distinguishes direct and oblique case, and number, cf. Table 19. There is a complementizer *je* used with finite complement clauses, which is related to the relative pronoun, although not completely identical in form (Neukom & Patnaik 2003:356-357).¹⁰

- (17) a. *[jēū lokɔ-manə e ghɔr-e rɔh-ɔnti], [mū semanɔ-nku jan-e nahi].*
 REL.DIR.SG person-PL this house-LOC live-3PL.HAB I they-OBL.DAT know-1SG.HAB NEG

- ‘I don’t know the people who live in this house.’ (Neukom & Patnaik 2003:394)
 b. *[mū je jib-i] e kɔtha mū jan-ith-il-i*
 I COMP go-FUT-1SG this matter I know-PRF-PST-1SG
 ‘I had known that I shall go.’ (Neukom & Patnaik 2003:357)

¹⁰ In the grammar, it is analyzed as a particle not as a complementizer because it is optional, there is often a pause after it, and it introduces other types of subordinate clauses.

Table 19: Oriya relative pronoun (Neukom & Patnaik 2003:393)

	SG	PL
NOM	<i>je</i>	<i>jeūmane</i>
OBL	<i>jaha</i>	<i>jamans</i>

Table 20: Kashmiri relative pronouns and their correlative counterparts (distal demonstrative) (Wali & Koul 1996:206)

		M		F		INAN	
		SG	PL	SG	PL	SG	PL
NOM	<i>yus</i>	<i>yim</i>		<i>yɔsi</i>	<i>yimi</i>	<i>yi</i>	<i>yim</i>
DAT	<i>yəmis-yas</i>	<i>yiman</i>		<i>yəmis-yas</i>	<i>yiman</i>	<i>yath</i>	<i>yiman</i>
ERG	<i>yem'</i>	<i>yimav</i>		<i>yem'</i>	<i>yimav</i>	<i>yemi</i>	<i>yimav</i>
GEN	<i>yem'sund</i>	<i>yimanhund</i>		<i>yəm'sinz</i>	<i>yimanhinz</i>	<i>yem'uk</i>	<i>yimanhinz</i>

		M		F		INAN	
		SG	PL	SG	PL	SG	PL
NOM	<i>su</i>	<i>tim</i>		<i>sɔ</i>	<i>timi</i>	<i>ti</i>	<i>tim</i>
DAT	<i>təmis-tas</i>	<i>timan</i>		<i>təmis-tas</i>	<i>timan</i>	<i>tath</i>	<i>timan</i>
ERG	<i>tem'</i>	<i>timav</i>		<i>tem'</i>	<i>timav</i>	<i>tami</i>	<i>timav</i>
GEN	<i>tem'sund</i>	<i>timanhund</i>		<i>təm'sinz</i>	<i>timanhinz</i>	<i>tam'uk</i>	<i>timanhinz</i>

- c. [mo maa pɔ̄tha-iba au ame kha-ith-iba] piṭha bɔ̄hut bhɔ̄lɔ.
 my mother send-PTCP and we eat-PRF-PTCP cake very good
 ‘The cake that my mother sent and that we ate was very good.’ (Neukom & Patnaik 2003:329)

7.1.11 Kashmiri

Kashmiri has a correlative construction marked by the dedicated relative pronoun *yus* in the relative clause, and the distal demonstrative *su* or *ti* in the main clause (Wali & Koul 1996:54-55). None of these forms are not used a complementizer, which has the form *zi/ki* (Wali & Koul 1996:1).

- (18) *su lədki [yus dili chu ro:za:n] chu m'o:n bo:y*
 CORR boy REL Delhi is live is my brother
 ‘The boy who lives in Delhi is my brother.’ (Wali & Koul 1996:54)

7.1.12 Dameli

Dameli is spoken in the Domel valley in Pakistan where it has been in close and longstanding contact with Pashto, such that nowadays almost all speakers of Dameli are bilingual in Pashto (Iranian, cf. 7.2.13), or more specifically in the eastern dialect of Ningrahar (Perder 2013:7). Unlike most other Indic languages, Dameli uses interrogatives to mark relative clauses, cf. 19a and

Table 21: Some Dameli interrogative-relative markers (Perder 2013:179)

<i>kii</i>	who	<i>keer</i>	when
<i>kuree</i>	who	<i>kaa</i>	where
<i>keeraa</i>	which	<i>kutaal</i>	where to
<i>kasāā</i>	whose	<i>ku</i>	why

Table 22: Sindhi relative and correlative pronouns (Khubchandani 2003:704)

	M	F	PL		M	F	PL
DIR	<i>jo</i>	<i>ja</i>	<i>je</i>		<i>so</i>	<i>sa</i>	<i>se</i>
OBL	<i>jəh</i>	<i>jini</i>			<i>təh</i>	<i>tini</i>	

19b. There is another strategy for forming RC with non-finite verb forms (Perder 2013:175). Interrogatives do not inflect and all of them can be used to introduce RC (Perder 2013:178-179). These forms not are used as complementizer, which has the form *tee* (Perder 2013:172).

- (19) a. *daaman ta asli paidawar keeraa daru?*
 Domel of original production which COP.INAN.IMP.F.3
 ‘The original produce of Domel, what is it?’ (Perder 2013:180)
- b. *see [keeraa ek čoṣti bai-thaa] see lee khušala āā zrax bai-thaa*
 DIST.NOM REL one only.child be-PST.3SG.M DIST.NOM very intelligent and clever be-PST.3SG.M

‘He who was an only child, he was very intelligent and clever.’ (Perder 2013:175)

7.1.13 Sindhi

Relative clauses in Sindhi are correlative constructions marked by a specialized relative pronoun in the relative clause and a correlative pronoun in the main clause. Both are inflected for case, gender, and number, cf. Table 22. No examples of full clauses are provided in the source materials available to me and I was not able to find information on the marking of complement clauses.

7.1.14 Goan Konkani

Goan Konkani has correlative constructions, but these have largely fallen out of use due to intensive and longstanding contact with Kannada (Dravidian) (Miranda 2007:840). Konkani presents us with an interesting case of pattern borrowing: in one variety of Goan Konkani, namely Karnataka Saraswat Konkani, interrogative pronouns are used to mark relative clauses. This strategy has been borrowed from the Dravidian language Kannada, which in turn modeled its finite relative clause construction on other Indic languages. Instead of creating a new dedicated relative pronoun, Kannada recruited interrogatives for this purpose, and this construction was then copied by Karnataka Saraswat Konkani, cf. 20a and 20b. Note that the construction with a relative pronoun also exists in Karnataka Sarawat, i.e. the construction with the interrogative pronoun did not replace the original one (for details see Nadkarni 1975). The use of interrogatives in correlatives is not found in other varieties of Goan Konkani, or Konkani more general (Nadkarni 1975:674).

Table 23: Old Marathi relative and correlative pronouns (Bloch 1970 [1914]:217)

relative						correlative							
	SG			PL				SG			PL		
	M	N	F	M	N	F		M	N	F	M	N	F
DIR	<i>jo</i>	<i>jem</i>	<i>jī, je</i>	<i>je</i>	<i>jīm</i>	<i>jyā</i>	<i>to</i>	<i>tem</i>	<i>tī, te</i>	<i>te</i>	<i>tīm</i>	<i>tyā</i>	
OBL			<i>jyā</i>	<i>jī, jiye</i>		<i>jyām</i>		<i>tyā</i>	<i>ti, tiye</i>		<i>tyām</i>		

In the materials available to me, the full paradigms of the pronouns are not provided and there is no information on the marking of complement clauses.

- (20) a. Karnataka Saraswat Konkani
[khanco mhāntāro pepar vāccat āssa] [to (mhāntāro) dāktaru āssa]
 which old.man paper reading is that (old.man) doctor is
 ‘The old man who is reading a newspaper is a doctor.’ (Nadkarni 1975:674)
- b. Goa Saraswat Konkoani
[jo mhāntāro pepar vāccat āssa-ki] [to (mhāntāro) dāktaru āssa]
 REL old.man paper reading is that (old.man) doctor is
 ‘The old man who is reading a newspaper is a doctor.’ (Nadkarni 1975:675)

7.1.15 Old Marathi (1000-1300 CE)

Old Marathi uses correlative constructions, in which the RC is introduced by a specialized relative pronoun and the matrix clause contains a coreferential distal demonstrative. Neither of these pronouns coincide with an interrogative pronoun (Master 1964:95-96). Both pronouns have a direct/oblique distinction and distinguish gender and number, cf. Table 23. There is no information on complement clauses and the available materials to me not provide any examples of full clauses. It is thus not possible to say whether any form of the relative pronoun was used as a complementizer as well.

7.1.16 Marathi

Marathi, which developed out of Old Marathi, has correlative constructions to express relativization, marked by the *j*-pronoun in the relative clause and a correlative pronoun in the main clause. The head noun can be repeated in both or omitted in the main clause. In addition, there are participial constructions, cf. 21c, that show agreement in gender and number with the head-noun (Dhongde & Wali 2009:217,222). The relative clause is usually preposed, as in other Indic languages, but can also be postposed, cf. 21a and 21b. Complement clauses are marked by the complementizer *ki* and not by one of the pronouns used in relative clauses.

- (21) a. *[ji mulgi ghāri ge-l-i] [ti (mulgi) dhā ahe].*
 REL.DIR.F girl home go-PRF-F.SG CORR.DIR.F (girl) stupid be.PRS
 ‘The girl who went home is stupid.’ (Dhongde & Wali 2009:217)
- b. *[ti (mulgi) dhā ahe] [ji mulgi ghāri ge-l-i].*
 CORR (girl) stupid be.PRS REL.NOM.F girl home go-PRF-F.SG
 ‘The girl who went home is stupid.’ (Dhongde & Wali 2009:218)

Table 24: Marathi relative and correlative (=distal demonstrative) pronouns (Dhongde & Wali 2009:52)

	SG			PL		
	M	N	F	M	N	F
NOM	<i>jo</i>	<i>je</i>	<i>ji</i>	<i>je</i>	<i>ji</i>	<i>jya</i>
OBL	<i>jala</i>	<i>jila</i>		<i>jan(n)a</i>		
NOM	<i>to</i>	<i>te</i>	<i>ti</i>	<i>te</i>	<i>ti</i>	<i>tya</i>
OBL	<i>tyala</i>	<i>tila</i>		<i>tyan(n)a</i>		

Table 25: Sanskrit relative pronoun (Wackernagel & Debrunner 1930:551)

	SG			DU			PL		
	M	N	F	M	N	F	M	N	F
NOM	<i>yáḥ</i>	<i>yát</i>	<i>yá</i>	<i>yáu</i>	<i>yé</i>	<i>yé</i>	<i>yé</i>	<i>yáni</i>	<i>yáḥ</i>
ACC	<i>yám</i>	<i>yát</i>	<i>yáṁ</i>	<i>yáu</i>	<i>yé</i>	<i>yé</i>	<i>yáñ</i>	<i>yáni</i>	<i>yáḥ</i>
INS	<i>yéna</i>		<i>yáyā</i>	<i>yábhyaṁ</i>			<i>yáih</i>	<i>yábhīḥ</i>	
DAT	<i>yásmai</i>		<i>yásyai</i>	<i>yábhyaṁ</i>			<i>yébhyaḥ</i>	<i>yábhyaḥ</i>	
ABL	<i>yásmāt</i>		<i>yásyāḥ</i>	<i>yábhyaṁ</i>			<i>yébhyaḥ</i>	<i>yábhyaḥ</i>	
GEN	<i>yásya</i>		<i>yásyāḥ</i>	<i>yáyoḥ</i>			<i>yésām</i>	<i>yásām</i>	
LOC	<i>yásmin</i>		<i>yásyām</i>	<i>yáyoḥ</i>			<i>yéṣu</i>	<i>yásu</i>	

- c. [Lili-*kədun wac-l-a nə ge-lel-a] pustək*
 Lili-by read-PRF-N.SG NEG go-2-PRF-N.SG book
 ‘the book Lili could not read’

(Dhongde & Wali 2009:223)

7.1.17 Vedic Sanskrit (2000-600 BCE)

Vedic Sanskrit has a dedicated relative pronoun, inflected for case, gender, and number, cf. Table 25. It goes back to PIE deictic *yo- (Wackernagel & Debrunner 1930:551). The neutral singular form *yát* was in transition to a complementizer, as illustrated in 22b. The clause containing *yad*, however, is appositional and does not (yet) represent the direct object argument of the verb (Holland 1984:611). It was thus not coded as having a complementizer function.

- (22) a. *ná mŕśā śrāntam [yád ávanti devāḥ]*
 NEG useless pain REL.ACC.N favor.PRS.3SG god.NOM.PL
 ‘The pain which the gods favor is not useless.’ (Davison 2009:227)
- b. *grnē tād (...) [yád dhámsi vr̥trám ójasā]*
 praise.1SG this COMP strike.2SG Vṛtra with.might
 ‘I praise this (...) that you strike Vṛtra with might’ (Holland 1984:611)

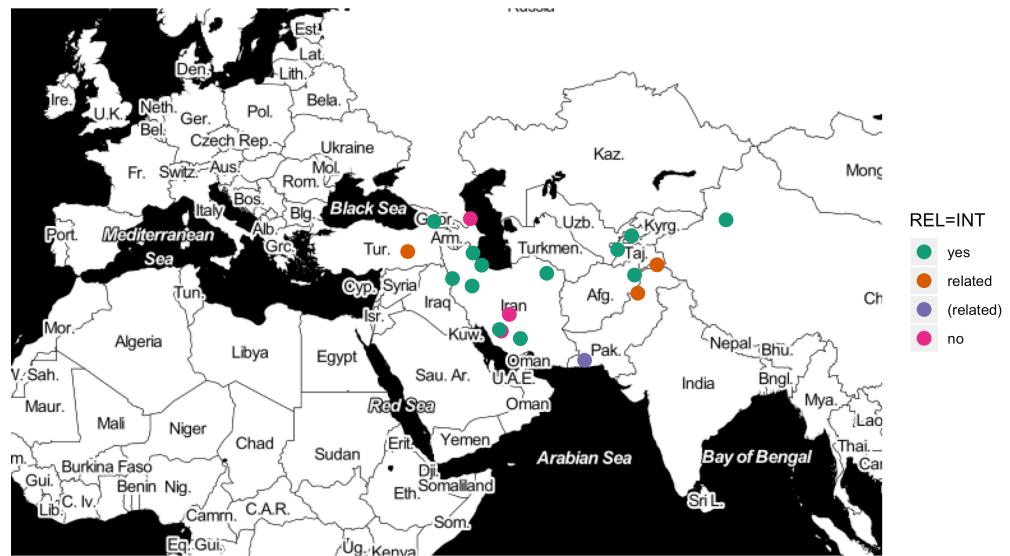


Figure 5: Geographical distribution of interrogatives as RC markers in Iranian

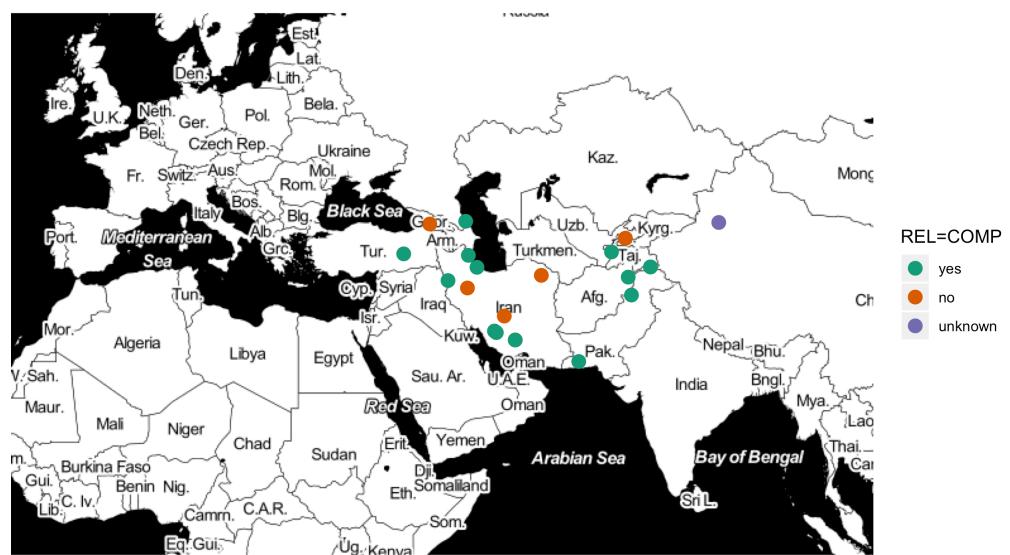


Figure 6: Geographical distribution of relatives used as complementizers in Iranian

Table 26: Avestan relative pronoun¹² (Hoffmann & Forssman 1996:164-165)

	SG			PL		
	M	N	F	M	N	F
NOM	<i>yā</i> / <i>yō</i>			<i>yā</i>	<i>yōi</i>	
ACC	<i>yām</i> , <i>yim</i> / <i>yim</i>	<i>hīat</i> / <i>yāt</i>		<i>yām</i>	<i>yāng</i> / <i>yāq</i>	<i>yā</i> <i>yā</i>
INS		<i>yā</i>		-	<i>yāš</i> / <i>yā</i>	-
DAT		<i>yahmāi</i>		-		
ABL		<i>yahmāt</i>		<i>yejhāt</i>	<i>yaēbiō</i>	<i>yābiō</i>
GEN		<i>yehiiā</i> / <i>yejhē</i>		<i>yejhā</i>	<i>yaēšqm</i>	<i>yājhqm</i>
LOC		<i>yahmī</i> / <i>yahmi</i>		<i>yejhē</i>	<i>yaēšū</i>	<i>yāhū</i>

7.2 Iranian

7.2.1 Old and Young Avestan (around 1000 BCE)

Old Avestan represents an earlier form of the language than Young Avestan, but Old Avestan is unlikely to be the direct ancestor of Young Avestan. The description includes both varieties. There is general agreement among scholars that Avestan was spoken in the area of modern-day eastern Iran, although the precise location cannot be determined (Sims-Williams 1987).

The relative pronoun goes back to the Proto-Indo-European deictic *yo-, which is most often assumed to have been originally a deictic. Its reflexes are used as relative pronouns in many ancient IE languages, for instance in Greek and Vedic Sanskrit (Gonda 1954). As in Sanskrit (cf. 7.1.17), the neuter singular form *hīat/yāt* in transition to a becoming a complementizer but has not fully assumed this function yet, since the clause is still clearly appositional (Holland 1984:611), cf. 23b.

(23) Young Avestan

- a. *cit auuat vacō ās ahura mazda [yat] mē frāuuuaocō*
which yonder word was Ahura Mazda REL.ACC.N to.me said.forth
'which was yonder word, Ahura Mazda, which you said forth to me?'¹¹ (Skjærvø 2009:158)
- b. *tat ahmāi jasat āiiaptōm yat hē puθrō us.zaiata*
that to.him came boon COMP to.him son was.born
'that favor came to him, that to him a son was born' (Holland 1984:611)

7.2.2 Wakhi

RCs in Wakhi can be marked by either one or both of the complementizers *tsə/tsəy* or *ki*. The latter is borrowed from Tajik (see section 7.2.18), in which it is used as an interrogative as well, but this is not the case in Wakhi. The two markers slightly differ with respect to their position in

¹¹ Word-by-word translations by SA.

¹² The forms to the left of the backslash are Old Avestan, those to the right Young Avestan. A dash indicates that the form is not attested.

the clause: *tsə/tsəy* directly precedes the verb, cf. 24a. The complementizer *ki* generally appears at the beginning of the relative clause. The antecedent may be accompanied by a demonstrative, but this is not obligatory (Bashir 2009:850). Wakhi also has non-finite RCs with participles.

- (24) a. *a-ŷa xalg [naql=əš tsə tsar-əm]*
 EMPH-DEM.DIST man story=ASP COMP tell-1SG
 ‘that man (whose) story I am telling’¹³(Wakhan)
- b. *yem xun-i ha-ya halg-ev-en [kumd-ar ki sak-e ū xi əgət]*
 DEM.PROX house-EZ EMPH-DEM.DIST person-OBL.PL-ABL which-? COMP 1PL-OBL ? ?
ðek̚t]
 daughter
 ‘this house belongs to the people to whom we have given our daughter’ (Hunza)
- c. *a-ya nayd-i [ki a-yəm mərda-v gur tsə kart-əv]*
 EMPH-DEM.DIST night-OBL.SG COMP EMPH-DEM.PROX ?-? ?? COMP bury-PST.3PL
 ‘that night when they buried this corpse’ (Wakhan) (Bashir 2009:850)
- d. *yandi duwâ tsar-ən ki fasl-ər ts-əm wungad-v-ən niyat wos-t*
 then prayer do-3PL COMP crop-GL from-these sparrow-OBL-SRC blessing become-PRS.3SG
 ‘Then they pray that the harvest be blessed by the sparrows.’ (Bashir 2009:858)

7.2.3 Sogdian (100 BCE - 1000 CE)

Relative clauses are introduced by interrogatives, such as *ke* ‘who’ and *ču* ‘what’, among others. The former can be used for animates and inanimates, while the latter is restricted to inanimates. The interrogatives are always followed by a so-called complementizer *ət(i)*, but this element is present in almost all Sogdian clauses – it can even appear in questions to host other clitics (Gershewitch 1954:221), cf. 25a. Although it is used as a general complementizer as well and this is probably its original function (see 25d), it might be better analyzed as a case of insubordination. A comparable situation is found in Bactrian, another Middle Iranian language, cf. Yakubovich (2005).

Interrogatives are generally invariable, but *ke* does have oblique and instrumental-ablative forms, cf. Table 27. However, the direct form is also used in those functions (Yoshida 2009:293).

- (25) a. *xa əspiyi-ti ku-tsār wāčām*
 the horses-COMP where-to send.1SG
 ‘Where shall I send the horses?’ (Yoshida 2009:317)
- b. *ōnō martī kunāt [ke-ti-ši xwati rēžāt]*
 that man husband make.SUBJ.3SG REL-COMP-her herself please.SUBJ.3SG
 ‘she shall make that man her husband who might be pleasing to her’ (Yoshida 2009:318)
- c. *xānd āfrītēt (...) [kū-əti waðēð mēnand xa roxšnda βayišt].*
 those blessed REL-COMP there stay.3SG the light gods
 ‘those blessed places where the light gods are staying’ (Yoshida 2009:318)

¹³ Glossing by SA, except for the last example, which is glossed in the source material. Due to the limited material available, it was not possible to gloss some of the forms.

Table 27: Sogdian interrogative-relative *ke* forms (Yoshida 2009:293)

DIR	<i>ke</i>
OBL	<i>kya</i>
INS-ABL	<i>kanāč, čakanāč, čakanā</i>

Table 28: Ossetic interrogative-relative pronoun (PL omitted for brevity) (Cheung 2008:97)

	Iron		Digor	
	ANIM	INANIM	ANIM	INANIM
NOM	<i>či</i>	<i>cy</i>	<i>ka</i>	<i>ci</i>
GEN	<i>kæj</i>	<i>cæj</i>	<i>ke</i>	<i>cæj</i>
DAT	<i>kæmæn</i>	<i>cæmæn</i>	<i>kæmæn</i>	<i>cæmæn</i>
ALL	<i>kæmæ</i>	<i>cæmæ</i>	<i>kæmæ</i>	<i>cæmæ</i>
ABL	<i>kæmæj</i>	<i>cæmæj</i>	<i>kæmæj</i>	<i>cæmæj</i>
INESS	<i>kæm</i>	<i>cæm</i>	<i>kæmi</i>	<i>cæmi</i>
ADESS	<i>kæwyl</i>	<i>cæwyl</i>	<i>kæbæl</i>	<i>cæbæl</i>
EQU	<i>kæjaw</i>	<i>cæjaw</i>	<i>kæjaw</i>	<i>cæjaw</i>

- d. *xa pīt wānō wēnant [əti xa brāmant ō (...) xwatāw parēpant]*
 the elephants thus saw COMP the brahmins the king take.away.3PL
 ‘the elephants saw that the brahmins took the king away’ (Yoshida 2009:320)

7.2.4 Ossetic

Ossetic relatives clauses are constructed as correlatives and the RC is marked by an interrogative inflected for case and animacy, cf. Table 28. Etymologically, the forms go back to the PIE interrogatives **kʷi/o-* (Thordarson 2009:183). The main clause contains a coreferential demonstrative pronoun. There are also externally headed relative clauses marked by the same interrogatives, which follow the main clause, but these are rare. Although complement clauses can be constructed as correlatives, they can also just be marked by a general complementizer *ke*. I was not able find examples of full clauses in the material available to me.

7.2.5 Talysh

Relative clauses are introduced by invariable *ki/ke*, which is said to be borrowed from Azerbaijani and/or Persian quite recently. In the 1950s, this marker was still only rarely used in colloquial speech, but today it is very widespread (Paul 2011:204-205). Unfortunately, it is not mentioned what kind of marking was used instead. Note that the native interrogative for ‘who’ is identical to the relative clause marker (Paul 2011:245-246), a situation found in many other Iranian languages. It is thus possible that this is not a case of borrowing at all, or that it is a case of pattern borrowing rather than matter borrowing. In the absence of further historical evidence, I will have to leave this question open. Complement clauses either take *ki* or are unmarked (Paul 2011:209).

- (26) a. *ki batə ən dü du?*
 who 2SG.OBL DEM buttermilk give.PST.TR
 ‘Who gave you this buttermilk?’ (Paul 2011:247)
- b. *mən merd-i [ki izər âma] vind=a.*
 1SG.OBL man-RCH REL yesterday come.PST.3SG see.PST=TR
 ‘I saw the man who came yesterday.’ (Paul 2011:206)
- c. *cəmən bəva vu=na=yə [ki nuxaš=e].*
 POSS.1SG brother say=LOC=3SG COMP sick=COP.3SG
 ‘My brother says that he is sick.’ (Paul 2011:248)

7.2.6 Dimli

Relative clauses are introduced by the invariable *ki* (Paul 2009:574). There are also internally headed relative clauses constructed in the same way. Complement clauses are marked by *ki* as well (Paul 2009:576). The forms of the interrogative pronouns are not provided, but there are a few examples of content questions. The forms that are used in the grammar sketch are:

- kām* ‘who’
či, čiči ‘what’
kōti ‘where’

None of them is identical to the relativizer/complementizer, although it seems likely that they are related. Dimli has been in longstanding contact with Northern Kurdish, which uses the interrogative *ku* ‘where’ as a relativizer (cf. 7.2.9) and thus cannot be the source of the Dimli construction. Neither can Turkish, the other primary contact language of Dimli. The form could have been borrowed from Farsi at an earlier point in time, or it could be a native Dimli form.

- (27) a. *qulā [ki bin-ē ji nī-yāseno]*
 hole REL bottom-EZ of.it NEG.be.visible¹⁴
 ‘a hole whose ground is not visible’ (Paul 2009:575)
- b. *ez zānā [ki o yo terseno].*
 1SG know COMP he is fearing
 ‘I know that he is frightened.’ (Paul 2009:576)

7.2.7 Balochi

Relative clauses are marked by invariable *ki* that is also used as a complementizer (Jahani & Korn 2009:669, 680). It is not used as an interrogative pronoun. Interrogatives are inflected and have an animacy distinction (*kay* for animates vs. *čē/čī* for inanimates). As in many other Iranian languages, it is not clear whether *ki* is a native Balochi form related to the interrogatives, or whether it is a loan from Farsi.

¹⁴ The grammar sketch provides morpheme segmentation but no glossing, only a free translation. The glosses are added by SA and some of the morpheme boundaries have been removed because it cannot be determined what each morpheme means.

- (28) a. *gis-ē* [ki mnī balluk bi āī tahā zindagī-a kurt] annūn bēxī
house-INDF REL 1SG.GEN grandmother in DEM.GEN inside life-PTCP do.PST.3SG now totally
wayrān int
destroyed COP.PRS.3SG
‘the house in which my grandmother lived is now totally in ruins’ (Jahani & Korn 2009:681)
- b. *dīst-ī* [ki āīā mazār pa radī-a gipt-a u bast-a]
see.PST-3SG COMP DEM.OBJ tiger for mistake-OBL take.PST-PRF and tie.PST-PRF
‘the saw that he had caught and tied up the tiger by mistake’ (Jahani & Korn 2009:673)

7.2.8 Gilaki

Relative clauses in Gilaki are marked the interrogative *ki*, which also used as a general complementizer. As an RC marker, *ki* is invariable, but as an interrogative it distinguishes between a direct (*ki*, rarely *ke*) and an oblique case form (*kiya*) (Rastorgueva et al. 2012:98, 213).

- (29) a. *xob bu-gu* åxər *ki=yə?*
good IMPF-say.PRS.IMP finally who.DIR=be.PRS.3SG
‘Alright, tell me finally, who is she?’ (Rastorgueva et al. 2012:402)
- b. *šāyəd=əm bə yād=ə xu mərd Mirza Mamud dəfəkə* [ki čənd səl piš]
maybe=also to memory=EZ self man Mirza Mamud fall.SUBJ.PRS-3SG REL several year before
žandarman úna bəkuštidi]
gendarme-PL 3SG.DIST.ACC PFV-kill.PST-3PL
‘Perhaps she is remembering her husband Mirza Mamud whom the gendarmes killed
several years before.’ (Rastorgueva et al. 2012:213)
- c. *šuma daní-di* [ki Huseyn xéyli båhuš bu]
2SG.NOM know.PRS-2PL COMP Hussein very clever be.PST.3SG
‘You know that Hussein was very clever.’ (Rastorgueva et al. 2012:213)

7.2.9 Northern Kurdish

In Northern Kurdish, RCs are marked by the invariable interrogative *ku* ‘where’ (Blau & Barak 2001:97, 110). The same element appears in combination with other words as a conjunction (Blau & Barak 2001:105). While not explicitly stated, the same *ku* is also used as a complementizer, cf. 30c.

- (30) a. *li ku derê?*
to where place
‘To which place?’¹⁵ (Blau & Barak 2001:97)
- b. *mirov-ên* [ku dibînî]
man-PL REL you.see
‘the men that you see’ (Blau & Barak 2001:110)
- c. *ew pêwist e* [ku nivîskarêñ me li ser jiyana gundî û axayan biaxivin]
it important COMP writers our of at on life villagers and lords speak
‘it is important that our writers speak of the life of villagers and lords’ (Thackston

7.2.10 Parthian (247 BCE – 224 CE)

Relative clauses are introduced by the interrogative *čē* ‘what’, rarely by *kē* ‘who’. They are both invariable (Durkin-Meisterernst 2014:216) and can represent a subject, object or possessive in the relative clause (Durkin-Meisterernst 2014:416). Occasionally, the interrogative *kadām* ‘which’ is used as a relative pronoun as well. Though the relative markers often occur sentence-initially, this is not obligatory when they function as relativizers (Sundermann 1989:132). It is not clear whether complement clauses can be marked in the same way, because the available material is not conclusive.

7.2.11 Khwarezmian (550 BCE - 1200 CE)

Relative clauses are introduced by the invariable interrogatives *ki* ‘who’ for animates and *ci* ‘what’ for inanimates. Optionally, there is a pronoun indexing the antecedent in the relative clause (Durkin-Meisterernst 2009:365). When used as interrogatives, the question marker *a-* is added before the pronoun (Durkin-Meisterernst 2009:347). Complement clauses are introduced by *ka* and not by the same interrogative pronouns (Durkin-Meisterernst 2009:365-366).

7.2.12 Parachi

The relative clause is introduced by the invariable interrogative *čē* ‘what’ (Kieffer 2009:713), which also used as a complementizer.

- (31) a. *čē bakār āyana?*
what good has.come
'What good has come?' (Kieffer 2009:719)
- b. *e hēžā-m leřē[čē bin], ēd-e yolu bičara bin*
this other-also lad REL was this-OBL very poor was
'and the other lad, who was here, as to him, he was very poor' (Kieffer 2009:718)
- c. *dhor-an [čē onhāk žū māneš našt-ō a]*
see.PST-3PL COMP ? ? man sit.-3SG ?¹⁵
'they saw that a man was sitting there' (Kieffer 2009:714)

¹⁵ The grammar sketch provides morpheme segmentation but no glossing, only a free translation. The glosses have been added by SA and some of the morpheme boundaries have been removed because it cannot be determined what each morpheme means.

¹⁶ The grammar sketch provides morpheme segmentation and translation throughout, but morpheme glosses only in the text sample. There was no clear example of the complementizer in the text, so the last example is glossed by SA as far as this was possible.

Table 29: Some Khotanese interrogative-relative pronouns (Emmerick 2009:387)

	who	what	which
NOM-ACC	<i>kye/i, ce/i</i>	<i>cu</i>	?
GEN-DAT	<i>kye/i, ce/i</i>	?	?
INSTR-ABL		<i>tcam-äña</i>	?
LOC		<i>tcam-äña</i>	<i>käm-äña</i>

7.2.13 Pashto

Relative clauses in Pashto are formed with the invariable *čə*, which is also used as a complementizer (David 2014:425-426). Questions are formed with separate interrogative pronouns, such as *tsok* ‘who’ and *tsə* ‘what’. The etymology of the relativizer is not completely certain, but it is probably related to the relativizers in Farsi *ke* and Parachi *če* which ultimately go back to the PIE interrogatives **kʷi-/kʷo-* (Morgenstierne et al. 2003:20). The interrogatives *tsok* and *tsə* also come from PIE **kʷi-/kʷo-* (Morgenstierne et al. 2003:17), so there is quite good evidence that the relatives are related to the interrogatives.

- (32) a. *háya həlk [čə bāzār ta tl-á-l-əy wə] də Gabina wrār-ə dəy*
that.DIR boy.M.DIR REL market.M.OBL to go-PST-PTCP.M.DIR be.PST.3SG of Gabina.F.OBL nephew-M.DIR
‘The boy who went to the market is Gabina’s nephew.’ (David 2014:427)
- b. *xatarnāk wu [čə yawāzi wú-gardz-ed-e].*
danger.M.DIR be.PST.3SG.M COMP alone AOR-walk-PST-2SG
‘It was dangerous that you were walking alone.’ (David 2014:430)

7.2.14 Khotanese (100 BCE - 1000 CE)

Relative clauses in Khotanese are marked by the interrogative pronouns, such as *kye/i ~ce/i* ‘who’ and *cu* ‘what’ (Emmerick 2009:387). These pronouns are inflected for case and animacy, but not for number, cf. Table 29. There is also an attributive interrogative ‘which’, but only one form of the paradigm is provided in the grammar sketch. It is only mentioned that complement clauses can be expressed by infinitives (Emmerick 2009:407-408). It thus seems they are not used as complementizers, but further research is needed to confirm this.

- (33) a. *kye=nä rro grat-u hvāñ-äte?*
who=to.us will instruction-ACC.SG preach-3SG
‘and who will teach instruction to us?’¹⁷ (Emmerick 2009:401)
- b. *uysnor-a [kye dāt-u byeh-īndä pyuṣṭ-e]*
being-NOM.PL REL law-ACC.SG succeed-3PL hear-INF
‘beings who succeed in hearing the Law’ (Emmerick 2009:408)

¹⁷ The grammar sketch provides morpheme segmentation but no glossing, only a free translation. The glosses are added by SA.

Table 30: Old Persian relative pronoun (Skjærvø 2016:90)

	SG			PL		
	M	N	F	M	N	F
NOM	<i>haya</i>	<i>taya</i>	<i>hayā</i>	<i>tayaiy</i>	-	<i>tayā (tayaiy)</i>
ACC	<i>tayam</i>		<i>tayām</i>	-	<i>tayā</i>	<i>tayā</i>
INS-ABL	<i>tayana</i>	-	-	-	-	-
GEN-DAT	-	-	-	-	<i>tayaišām</i>	<i>tayaišām</i>

7.2.15 Old Persian (600 - 300 BCE)

Old Persian has a dedicated relative pronoun *haya-* that inflects for case, number, and to some extent gender. Not all forms attested, cf. Table 30. The case of the relative pronoun is determined by the function of the head noun in the relative clause, although attraction (i.e. assimilation to the case of the antecedent) also occurs (Skjærvø 2009:154,159). The neutral singular nominative-accusative form *taya* can be used to mark complement clauses, as in 34b.

The relative pronoun results from a combination of PIE *yo- with the third person pronoun *so-/to- (Skjærvø 2007:898). Interrogative pronouns are very scarcely attested in Old Persian. The only two known forms are *kašciy* and *cišciy*, which both appear in the same passage and are used as indefinites (Skjærvø 2016:96).¹⁸

- (34) a. *martiyā [tayai-šaiy fratamā anušiyā āhatā] avāja*
men REL.NOM.PL.M-3SG.DAT.SG.M foremost followers be.PST.3PL kill.3SG
‘He killed the men who were his foremost followers.’¹⁹ (Skjærvø 2016:90)
- b. *avahayarādiy kāram avājaniyā mā-tayamām xšnāsātiy [taya adam naiy Bārdiya*
for.reason people.ACC kill.OPT.3SG NEG-in.order know.3SG COMP 1SG NEG Smerdis
amiy haya Kurauš puça]
be.1SG REL.NOM.SG.M Cyrus.GEN son
‘He would kill the people in order that it (they) should not realize that he was not
Smerdis son of Cyrus!’ (DB 1.15-53) (Skjærvø 2016:124-125)

7.2.16 Middle Persian (200 BCE - 900 CE)

Relative clauses are introduced by the interrogatives *kē* for animate or *čē* for inanimate, although that distinction is not applied consistently. They are both invariable (Durkin-Meisterernst 2014:216) and can represent a subject, object or possessive in the relative clause (Durkin-Meisterernst 2014:416). Complement clauses are introduced by *kū* and constitute the most frequent kind of subordinate clauses in Middle Persian.

7.2.17 Farsi

In Farsi, relative clauses are marked by the invariable *ke* that is also used as a complementizer (Lazard 1992:218, 229). This form is also the interrogative ‘who’, but in this function it is in-

¹⁸ Cited with permission from the author.

¹⁹ Word-by-word translations by SA.

flected for number (*kīān*, *kehā*) and has a variant *ki* (plural *kiā*) in the colloquial language (Lazard 1992:120). All these forms go back to a form of the PIE interrogative **kʷi/kʷo-* (Morgenstierne et al. 2003:20).

- (35) a. *ke āmade-ast?*
 who come-be.PST.3SG²⁰
 ‘Who came?’ (Lazard 1992:120)
- b. *yek mard vâred šod [ke man u-râ ne-mišenâxtam]*
 a man entered be.3SG REL 1SG 3SG-OBL NEG-know.1SG
 ‘a man whom I didn’t know entered’ (Lazard 1992:229)
- c. *goft [ke tamâm šod]*
 say.PST.3SG COMP finished be.3SG
 ‘He said that it’s finished.’ (Lazard 1992:218)

7.2.18 Tajik

RC marking in Tajik is very similar to that in Farsi. Relative clauses are marked by the invariable *ki*, the interrogative ‘who’. Like in Farsi, *ki* is used as a general complementizer, too (Windfuhr & Perry 2009:502-504). As an interrogative, the form receives stress (graphically represented as *kī*), but unlike in Farsi, it is invariable in this function as well (Perry 2005:123).

- (36) a. *kī bud?*
 who be.PST.3SG
 ‘Who was (it)?’ (Windfuhr & Perry 2009:438)
- b. *duxtarča [kī dar gird u peš-i xud modar-i xud-ro na-yoft] ba girya*
 little.girl REL in around and front-EZ self mother-EZ self-OBJ not-find.PST.3SG to cry.INF
 dar omad
 in come.PST.3SG
 ‘The little girl who did not find her mother anywhere near, began to cry.’ (Windfuhr & Perry 2009:505)
- c. *mi-gū-yand [kī kulliyot-i in na visanda bar omad-a ast].*
 IMPF-say-3PL COMP collected.works-EZ this writer out come.PTCP-? COP.3SG
 ‘They say that collected works of this writer’s have appeared.’ (Windfuhr & Perry 2009:463)

7.2.19 Angali (Southwestern Fars)

RCs in Angali are marked by invariable interrogative *ke* ‘who’ (which has a variant *kī*) (Angali 2004:94, 96). Although not stated explicitly in the grammar, the same marker is also found as a complementizer, as in example 37c.

- (37) a. *ke vi?*
 who be.PST.3SG
 ‘Who was that?’²¹ (Angali 2004:118)

²⁰ Glossing by SA.

- b. *daškeykū [ke bā daðeɪð-om,] pīsiðe.*
 thread COMP span.PST-1SG wear.out.PST-3SG
 ‘The thread, which I span, is worn out.’ (Angali 2004:186)
- c. *lāzom-e [ke hokmā birī]*
 be.imperative-LNK COMP really go.2SG
 ‘It is imperative that you go.’ (Angali 2004:191)

7.2.20 Judeo-Tat

The main strategy for relativizing in Judeo-Tat is marked by the nominalizer *=ho* (Authier 2012:251).²² There are various strategies for marking complement clauses, one of which is *=ho*. It is not frequent in this function, though, and probably cannot be regarded as a general complementizer (Authier 2012:232).

- (38) a. *[se odomi danü=ho] gof sur nisdi*
 three person know=REL word secret not.is²³
 ‘A word that is known by three people is not a secret.’ (Authier 2012:247)
- b. *tü danüsdeni [padşoh ser-tü=re mi=buru=ho]=re*
 you know king head-you=of ?=cut.off=COMP=PTCP
 ‘You know that the king will cut your head off.’ (Authier 2012:234)

7.3 Nuristani

7.3.1 Waigali

Relative clauses in Waigali are unmarked when they are pre-nominal, but when they are post-nominal they are marked by *-sta* (Degener 1998:207-280), cf. 39. This form appears with all noun modifiers that are post-nominal, and as such is not restricted to relative clauses, but also used with adjectives (Degener 1998:183). Complement clauses are introduced by the complementizer *ta* or unmarked (Degener 1998:216). The interrogatives in Waigali are cognate with those of other Iranian languages, e.g. *kiš* ‘what’ (Degener 1998:90).

- (39) *dü jan müla [e šāl-gara-kana wu-taraset-sta].*
 two CLF mullah a barn-fence-LOC over-step-REL
 ‘two mullahs that were climbing over a barn fence’ (Degener 1998:208)

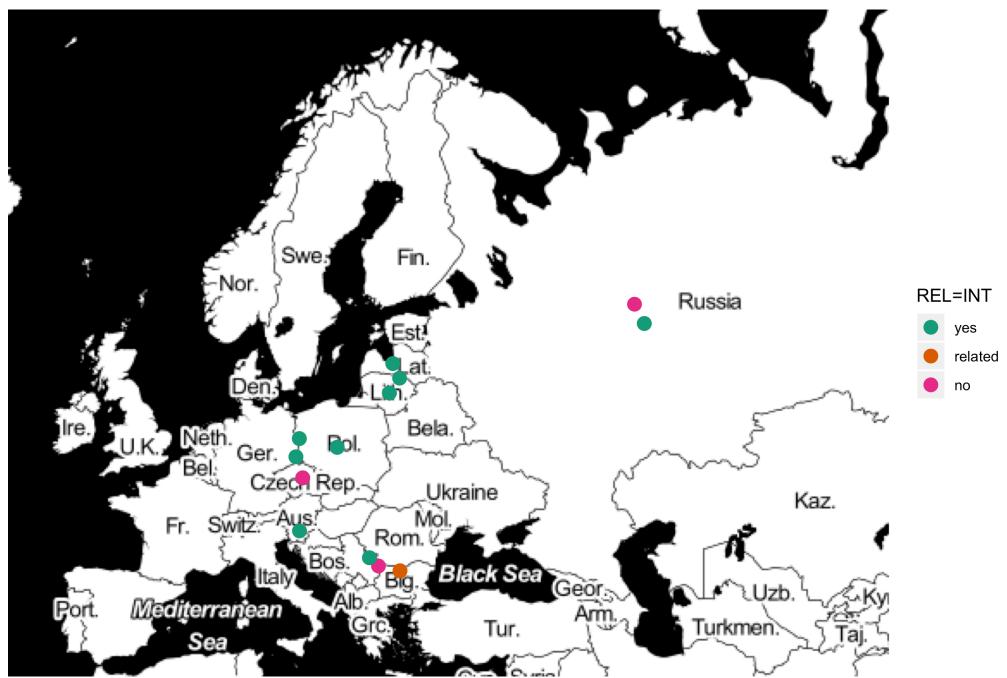


Figure 7: Geographical distribution of interrogatives as RC markers in Balto-Slavic



Figure 8: Geographical distribution of relatives used as complementizers in Balto-Slavic

Table 31: Attested forms of the Old Prussian interrogative-relative pronoun (Schmalstieg 1974:135-136)

		M	N	F
	SG	PL	SG	SG
NOM	<i>kas</i>	<i>quai, quoi</i>	<i>ka, kha</i>	<i>quai, quoi</i>
ACC		<i>kans</i>	<i>ka, kai</i>	
DAT	<i>kasmu</i>		<i>kasmu</i>	
INS			<i>ku</i>	

Table 32: Modern Lithuanian interrogative-relative pronoun ‘who, what’ (Ambraszas 1997:200)

NOM	<i>kàs</i>
GEN	<i>kõ, kienõ</i>
DAT	<i>kám</i>
ACC	<i>kã</i>
INST	<i>kuõ</i>
LOC	<i>kamè</i>

8 Balto-Slavic

8.1 Baltic

8.1.1 Old Prussian (1369 – 1700 CE)

Old Prussian is an extinct and sparsely attested Baltic language once spoken by the Prussians in what is today Germany. It is attested mainly in three catechisms and many details especially about its syntax remain unclear. The interrogative and relative pronouns are attested (although not all case/gender/number forms) and there is no distinction between the two. As opposed to the other Baltic languages, there is a number and gender distinction (Schmalstieg 1974:135-136). Complement clauses are not attested.

8.1.2 Old Lithuanian (1500-1700 CE) and Modern Lithuanian

Old Lithuanian and its modern form are discussed together, since the changes between the two are minimal and the material available for Old Lithuanian is very restricted. In Old Lithuanian interrogative pronouns were used as RC markers and this continues into Modern Lithuanian, which uses *kàs* ‘who, what’ and *kuris* ‘which’ (Ambraszas 1997:200). No examples of headed relative clauses are given in the grammar. Complement clauses are marked by *kad* (Ambraszas 1997:719), which looks like it could be related to the interrogatives. There are no proposals for its etymology in the materials available to me, so this has to remain an open question.

²¹ Glossing and morpheme segmentation by SA.

²² Indefinite (i.e. headless) correlatives can also be marked by interrogatives such as *komi* ‘which’, *ki* ‘who’ and *çü* ‘what’ (Authier 2012:258), but this is due to influence from Russian and still rare.

²³ Glossing by SA.

Table 33: Latvian interrogative-relative pronouns (Prauliņš 2012:55, 59)

	'who, what'	'which'		
		M.SG	F.SG	M.PL
NOM	<i>kas</i>	<i>kurš</i>	<i>kura</i>	<i>kuri</i>
GEN	<i>kā</i>	<i>kura</i>	<i>kuras</i>	<i>kuru</i>
DAT	<i>kam</i>	<i>kuram</i>	<i>kurai</i>	<i>kuriem</i>
ACC	<i>ko</i>	<i>kuru</i>	<i>kurus</i>	<i>kuras</i>
LOC	<i>kur</i>	<i>kurā</i>	<i>kurā</i>	<i>kuros</i>

8.1.3 Latvian

As in Lithuanian, RCs are introduced by interrogative pronouns such as *kas* ‘who, what’ and *kurš* ‘which, who’. The former is the default, while the latter is only used with prepositions or in the genitive or locative (Prauliņš 2012:60). Complement clauses are marked by the complementizer *ka*, which – just as in Lithuanian – is potentially related to the interrogative pronouns.

- (40) a. *kas tas ir?*
 who/what that is
 ‘Who/what is that?’²⁴ (Prauliņš 2012:59)
- b. *Tas vīrietis, [kas sēž pie galda], ir mans brālis.*
 that man REL.NOM sit at table is my brother
 ‘That man who is sitting at the table is my brother.’ (Prauliņš 2012:60)

8.2 Slavic

8.2.1 Old East Slavic (900–1500 CE)

In Old East Slavic (also referred to as Old Russian), RC are marked by a specialized relative pronoun which consists of the inflected anaphoric pronoun *j-* followed by the element *že* (Schmalstieg 1995:61-62). This latter element is also used as a topic marker in main clauses (Ickler 1977). The relative pronoun inflects for case, gender, and number. The pronoun goes back to PIE *yo- and is cognate with most of the relative markers found in Indic languages. It is not used as a complementizer.

- (41) *klanjaem'sja bo Bogu [iže] s'tvori nebo]*
 we.make.obeisance for God.DAT.SG.M REL.NOM.SG.M created heaven
 ‘for we make obeisance for God who created heaven’ (Schmalstieg 1995:62)

8.2.2 Russian

Russian has two strategies for marking RCs, one with the inflected interrogative pronoun *kotor-* ‘which’, the other with the invariable *čto* (Timberlake 2004:208-210). The pronoun inflects for

²⁴ Word-by-word translation by SA.

²⁴ Transliteration by SA.

Table 34: Old East Slavic relative pronoun (Schmalstieg 1995:60-61)

	SG			DU		PL	
	M	N	F	M	N/F	M	N/F
NOM	<i>iže</i>	<i>eže</i>	<i>jaže</i>	<i>jaže</i>	<i>jiže</i>	<i>jiže</i>	<i>jaže</i>
ACC	<i>iže, egože</i>	<i>eže</i>	<i>juže</i>	<i>jaže</i>	<i>jiže</i>	<i>jaže</i>	<i>jaže</i>
GEN	<i>egože</i>	<i>egože</i>	<i>ejaže</i>	<i>ejuže</i>	<i>ejuže</i>	<i>ix”že</i>	<i>ix”že</i>
DAT	<i>emuže</i>	<i>emuže</i>	<i>eiže</i>	<i>imaže</i>	<i>imaže</i>	<i>im”že</i>	<i>im”že</i>
INS	<i>im’že</i>	<i>im’že</i>	<i>ejuže</i>	<i>imaže</i>	<i>imaže</i>	<i>imiže</i>	<i>imiže</i>
LOC	<i>em’že</i>	<i>em’že</i>	<i>eiže</i>	<i>ejuže</i>	<i>ejuže</i>	<i>ix”že</i>	<i>ix”že</i>

Table 35: Russian interrogative-relative pronoun ‘which’ (Wade 2011:169)

	M.SG	N.SG	F.SG	PL
NOM	<i>kotoryj</i>	<i>kotoroe</i>	<i>kotoraja</i>	<i>kotorye</i>
ACC	<i>kotoryj</i>	<i>kotoroe</i>	<i>kotoruju</i>	<i>kotorye</i>
GEN	<i>kotorogo</i>	<i>kotorogo</i>	<i>kotoroj</i>	<i>kotoryh</i>
DAT	<i>kotoromi</i>	<i>kotoromi</i>	<i>kotoroj</i>	<i>kotorym</i>
INS	<i>kotorum</i>	<i>kotorum</i>	<i>kotoroj</i>	<i>kotorymi</i>
OBL	<i>kotorom</i>	<i>kotorom</i>	<i>kotoroj</i>	<i>kotoryh</i>

case, gender, and number, cf. Table 35. The invariable *čto* is identical to the nominative singular form of the interrogative ‘what’ and is also used as a general complementizer. It is very frequent in the colloquial language, but only rarely found in written language.

- (42) a. *kotoryj chas?*
 which time
 ‘What’s the time?’²⁵ (Wade 2011:145)
- b. *i tam nažat’ ot količestva ljudej, [kotorye nazyvajut]*
 and there click off number people REL called
 ‘and there they click off the number of people who have called.’ (Timberlake 2004:209)
- c. *my izucili kartu regiona [čto ležali pered nami na stole].*
 we studied map region REL before us on table
 ‘We studied a map of the region, which lay before us on the table.’ (Timberlake 2004:210)
- d. *mne bylo docadno [čto moj dvojrudnyj brat so mnoj ne igral]*
 to.me was annoying COMP my cousin with me not play
 ‘It was annoying that my cousin did not play with me.’ (Timberlake 2004:360)

8.2.3 Old Church Slavic (800–1100 CE)

In Old Church Slavic, relative clauses are marked by the inflected relative pronoun *iže*. Like Old East Slavic, this is a combination of a third person pronoun going back to PIE *yo- and the

²⁵ Transliteration and word-by-word translation by SA.

Table 36: Old Church Slavic relative pronoun (Lunt 2001:64)

	SG			DU		PL		
	M	N	F	M	N/F	M	N	F
NOM	<i>iže</i>	<i>ježe</i>	<i>jaže</i>	<i>jaže</i>	<i>iže</i>	<i>iže</i>	<i>jaže</i>	<i>ježe</i>
ACC	<i>iže, jegože</i>	<i>ježe</i>	<i>jože</i>	<i>jaže</i>	<i>jiže</i>	<i>ježe</i>	<i>jěže</i>	<i>jaže</i>
GEN	<i>jegože</i>	<i>jegože</i>	<i>jejejerze</i>	<i>jejuže</i>	<i>jejuže</i>	<i>ix”že</i>	<i>ix”že</i>	<i>ix”že</i>
DAT	<i>jemuže</i>	<i>jemuže</i>	<i>jeiže</i>	<i>imaže</i>	<i>imaže</i>	<i>im”že</i>	<i>im”že</i>	<i>im”že</i>
INS	<i>im’že</i>	<i>im’že</i>	<i>jejqže</i>	<i>imaže</i>	<i>imaže</i>	<i>imiže</i>	<i>imiže</i>	<i>imiže</i>
LOC	<i>jem’že</i>	<i>jem’že</i>	<i>jeiže</i>	<i>jejuže</i>	<i>jejuže</i>	<i>ix”že</i>	<i>ix”že</i>	<i>ix”že</i>

particle *že*. The pronoun part is inflected for case, gender, and number with the particle following the inflected form (Lunt 2001:63-64) and the forms are nearly identical to those in Old East Slavic, cf. Table 36. This pronoun is not used as a complementizer.

The gradual shift towards using interrogatives to mark RC had already begun in Old Church Slavic, but there are no clear examples of headed relative clauses yet (for details, see Heine & Kuteva 2006:221-222).

8.2.4 Bulgarian

Bulgarian also has two strategies for marking RCs, one with the invariable *deto*, and the other with inflected interrogative pronouns. The invariable *deto* is also used as a general complementizer, and has an interesting etymology: it derives from the local adverb *kădeto* ‘where’, which comes from the interrogative *kăde* ‘where?’ combined with the definiteness marker *-to*. While it is not an interrogative synchronically, it ultimately has an interrogative as its source. This way of marking RCs is particularly common in colloquial Bulgarian (Krapova 2010).

The other strategy is to add the same definiteness marker *-to* to inflected interrogative pronouns (Rudin 2009), cf. Table 37. This strategy is the dominant one in the written language. Because of the addition of the definiteness marker, the relative pronoun is not identical to the interrogative, but they both go back to the same PIE forms.

- (43) a. *Koj ima vreme?*
who has time
'Who has time?' (Rudin 2009:405)
- b. *filmite [koito gledahme]*
movies.DEF REL watched
'the movies which we watched' (Rudin 2009:412)
- c. *filmite [deto gledahme]*
movies.DEF REL watched
'the movies which we watched' (Rudin 2009:412)
- d. *Săžaljavam, [deto ne možax da dojda].*
regret.1SG COMP not could.1SG mod come.1SG
'I regret that I could'nt come.' (Krapova 2010:1240)

Table 37: Bulgarian interrogative pronoun (Rudin 2009)

	M	F	N	PL
NOM	<i>koj</i>	<i>koja</i>	<i>koe</i>	<i>koi</i>
ACC	<i>kogo</i>			
GEN	<i>čij</i>	<i>čija</i>	<i>čie</i>	<i>čii</i>

Table 38: Serbian-Croatian-Bosnian interrogative-relative pronoun (Browne & Alt 2004:37)

	SG			PL		
	M	N	F	M	N	F
NOM	<i>koji</i>	<i>kojo</i>	<i>koja</i>	<i>koji</i>	<i>koja</i>	<i>koje</i>
ACC	<i>koji, kojog(a)</i>	<i>kojo</i>	<i>koju</i>	<i>koje</i>	<i>koja</i>	<i>koje</i>
GEN	<i>kojog(a)</i>	<i>kojog(a)</i>	<i>koje</i>	<i>kojih</i>	<i>kojih</i>	<i>kojih</i>
DAT-LOC	<i>kojom</i>	<i>kojom</i>	<i>kojoj</i>	<i>kojim(a)</i>	<i>kojim(a)</i>	<i>kojim(a)</i>
INST	<i>kojim</i>	<i>kojim</i>	<i>kojom</i>	<i>kojim(a)</i>	<i>kojim(a)</i>	<i>kojim(a)</i>

8.2.5 Serbian-Croatian-Bosnian

In SBC, as in many modern Slavic languages, RCs are marked either by an invariable marker that is also a complementizer, or by inflected interrogative pronoun (Browne & Alt 2004:67). The interrogative *koji* ‘which’ is inflected for case number and gender. As in Russian, the invariable *što* is also used as a complementizer and is identical to the nominative neuter form of the interrogative pronoun ‘what’, cf. Table 38.

- (44) a. *koji student uči ovde?*
 which student get.in here
 ‘Which student is studying here?’ (Alexander 2006:42)
- b. *čov(j)ek [koji je došao]*
 man REL.NOM has come²⁶
 ‘the man who has come’ (Browne & Alt 2004:67)
- c. *čov(j)ek [što ga vidim]*
 man REL him see.1SG
 ‘the man that I see’ (Browne & Alt 2004:67)
- d. *Radujemo se [što smo vas ponovo vid(j)eli]*
 we are happy COMP we you again saw
 ‘We are glad that we have seen you again.’ (Browne & Alt 2004:65)

²⁶ Word-by-word translation by SA.

Table 39: Slovene interrogative-relative pronoun ‘which’ (dual and plural omitted for brevity) (Herrity 2015:102-103)

	M	F	N
NOM	<i>kateri</i>	<i>katera</i>	<i>katero</i>
ACC	<i>kateri, katerega</i>	<i>katero</i>	<i>katero</i>
GEN	<i>katerega</i>	<i>katere</i>	<i>katerega</i>
DAT	<i>kateremu</i>	<i>kateri</i>	<i>kateremu</i>
LOC	<i>katerem</i>	<i>kateri</i>	<i>katerem</i>
INS	<i>katerim</i>	<i>katero</i>	<i>katerim</i>

8.2.6 Slovenian

Slovenian has two strategies for marking headed relative clauses: the invariable *ki*, and the interrogative pronoun *kateri* ‘which’ (Lencek 1982:224-225).²⁷ The pronoun *kateri* ‘which’ is only used with prepositions, i.e. with obliques, but both with animate and inanimate antecedents. . For all other cases, the invariable *ki* is used, either by itself when nominative (as in 45b), or combined with a clitic personal pronoun that agrees in case, number, and gender with the head noun. In the spoken language, however, the distribution of the two forms is more flexible, though (Herrity 2015:106-107). The etymology of *ki* is not clear – there are many proposals and little evidence for any of them (see Sonnenhauser 2013:155-159 for details). Some of these involve interrogatives, others do not. For the purpose of this study, we will not discuss this any further and note that the origin of *ki* cannot be determined at this point.

Unlike in many other Slavic languages, none of the forms mentioned above is used as a complementizer (which is the invariable *da*) (Herrity 2015:310).

- (45) a. *Katéro obléko imáš ráje?*
which dress have.2SG rather
'Which dress do you prefer?'²⁸ (Herrity 2015:103)
- b. *Knjíga, [ki je na mízi], je darilo.*
book REL is on table is present
'The book, which is on the table, is a present.' (Herrity 2015:107)
- c. *Tó ja vprašánje, [na katéro je težkó odgovoríti].*
this is question.N to REL.ACC.N is difficult answer
'This is a question which is difficult to answer.' (Herrity 2015:106)

8.2.7 Czech

RCs in Czech can be marked by the interrogative *který* ‘which’, the dedicated relative pronoun *jenž*, or the invariable *co*. The latter also serves as a complementizer (Minlos 2012) and is identical to the interrogative *co* ‘what’ in the nominative singular case form. This construction appears

²⁷ In headless RCs, the interrogatives ‘who’ and ‘what’ combined with a formant *-r* are used. This formant comes from the particle *-že* via rhotacism, which means it’s cognate to the final element of relative pronouns in Old East Slavic and Old Church Slavic (Sonnenhauser 2013:153).

²⁸ Word-by-word translation by SA.

frequently in colloquial language. The two other pronouns are inflected for case, gender, and number (Janda & Townsend 2004:91-92). The dedicated relative pronoun *jenž* is considered bookish and restricted to the written, formal form of the language (Janda & Townsend 2004:31).

- (46) a. *Gratulujeme studentům [kteří/již dopsali své disertace].*
 congratulate.1PL students REL finished their dissertation
 ‘We congratulate the students who have finished their dissertation.’²⁹ (Janda & Townsend 2004:92)
- b. *porvdavačka [co jste s ní mluvil]*
 saleswoman REL be.2SG with her talked
 ‘the saleswoman you were talking to’ (Janda & Townsend 2004:93)

8.2.8 Polish

In Polish, relative clauses can be marked by the interrogative pronouns *któr-* and *jak-* (Swan 2002:161, 178-180). Both are inflected for case, number, and gender, and are roughly translated to ‘which’. In questions, *któr-* is more specific implying that a choice is made out of a known and visible set, while *jak-* refers to kind or type (Swan 2002:180), cf. 47a and 47b. In addition, the nominative-accusative singular neuter form of the interrogative ‘what’ *co* can be used as a relativizer, but is invariable in this function (Minlos 2012). The latter is not the general complementizer (which is *że*) as in many other Slavic languages, though.

- (47) a. *Który to jest samochód?*
 which.NOM.SG.M this be.3SG car
 ‘Which car is that?’ (out of specific cars under discussion) (Swan 2002:180)
- b. *Jaki to jest samochód?*
 which.NOM.SG.M this be.3SG car
 ‘What kind of car is that?’ (i.e. what brand, what is like) (Swan 2002:180)
- c. *Co mogę panu profesorowi podać?*
 what can.1SG mister professor offer
 ‘What may I serve you, professor?’ (Swan 2002:166)
- d. *Zgubiłem pieniądze, [które dałaś].*
 lost.1SG money REL gave.2SG
 ‘I lost the money you gave me.’ (Swan 2002:161)
- e. *Zgubiłem pieniądze, [co mi je dałaś].*
 lost.1SG money REL me it gave.2SG
 ‘I lost the money you gave me.’ (Swan 2002:161)

8.2.9 Upper Sorbian

RCs in Upper Sorbian are marked by interrogative pronouns with a formant -ž added at the end, such as *što-ž* ‘what’, *štó-ž* ‘who’, and *kotry-ž* ‘which, who’ (Stone 1993:663). These pronouns

²⁹ Word-by-word translation by SA.

²⁹ Word-by-word translation by SA.

Table 40: Polish interrogative pronoun ‘which’ and relative pronoun (plural forms omitted for brevity) (Swan 2002:179-180)

	M	N	F	M	N	F
NOM	<i>który</i>	<i>które</i>	<i>która</i>	<i>jaki</i>	<i>jakie</i>	<i>jaka</i>
ACC	<i>ktory,którego</i>	<i>które</i>	<i>którq</i>	<i>jaki, jakiego</i>	<i>jakie</i>	<i>jakq</i>
GEN	<i>którego</i>	<i>którego</i>	<i>której</i>	<i>jakiego</i>	<i>jakiego</i>	<i>jakiej</i>
DAT	<i>któremu</i>	<i>któremu</i>	<i>której</i>	<i>jakiemu</i>	<i>jakiemu</i>	<i>jakiej</i>
INS	<i>którym</i>	<i>którym</i>	<i>którq</i>	<i>jakim</i>	<i>jakim</i>	<i>jakq</i>
LOC	<i>którym</i>	<i>którym</i>	<i>której</i>	<i>jakim</i>	<i>jakim</i>	<i>jakiej</i>

Table 41: Some Upper Sorbian interrogative-relative pronouns (Schuster-Šewc 1996:107-108, 126)
‘which’

	‘who’	‘what’	M	N.SG	F.SG	PL
NOM	<i>štó</i>	<i>što</i>	<i>kotyr</i>	<i>kotre</i>	<i>kotra</i>	<i>kotre, kotri</i>
GEN	<i>koho</i>	<i>čeho</i>	<i>kotrehu</i>	<i>kotrehu</i>	<i>kotreje</i>	<i>kotrych</i>
DAT	<i>komu</i>	<i>čemu</i>	<i>kotremu</i>	<i>kotremu</i>	<i>kotrej</i>	<i>kotrym</i>
ACC	<i>koho</i>	<i>što, (na) čo</i>	<i>kotyr, kotrehu</i>	<i>kotyr, kotrehu</i>	<i>kotru</i>	<i>kotre, kotrych</i>
INS	<i>z kim</i>	<i>z čim</i>	<i>kotrym</i>	<i>kotrym</i>	<i>kotrej</i>	<i>kotrymi</i>
LOC	<i>(wo) kim</i>	<i>(wo) čim</i>	<i>(wo) kotrym</i>	<i>(wo) kotrym</i>	<i>(wo) kotrej</i>	<i>(wo) kotrych</i>

are inflected for case, and in some cases also for gender and number, cf. There are also relative pronouns that are not used as interrogatives, but have the same final element -ž, such as *kiž*. These are invariable and only used in the nominative and accusative in the standard language, but in colloquial speech have extended into oblique roles as well. None of these is used as a complementizer (which has the form *zo*).

- (48) a. *Što sy widział?*
 what COP.2SG see
 ‘What did you see?’ (Schuster-Šewc 1996:126)
- b. *Běchmoj sej dōšloj k čeče, [kotraž bydleše někajke tři kilometry zdalena w runje tajkej chězce]*
 go.to oneself see to aunt REL.NOM.SG.F lived some three kilometers away in just such house
 ‘The two of us had gone to see our aunt who lived some three kilometers away in just such a house’ (Stone 1993:233)

9 Germanic

9.1 Gothic (200-1000 CE)

Relative clauses in Gothic are marked in three different ways, all of which involve an element *ei*, which by itself is a complementizer. The Gothic relative pronoun is made up of the demonstrative pronoun to which *ei* is added (see the full paradigm in Table 42). Another strategy is to use the

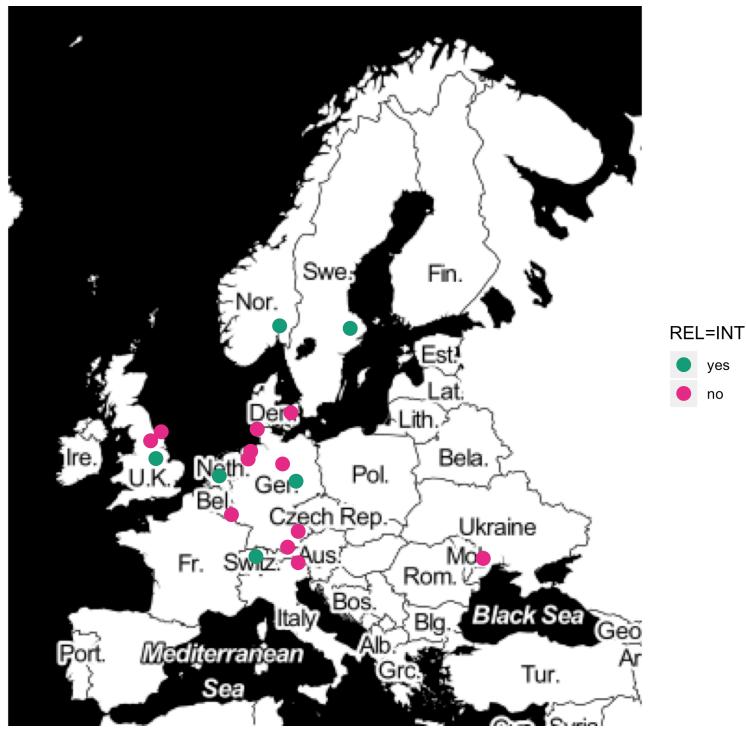


Figure 9: Geographical distribution of interrogatives as RC markers in Germanic

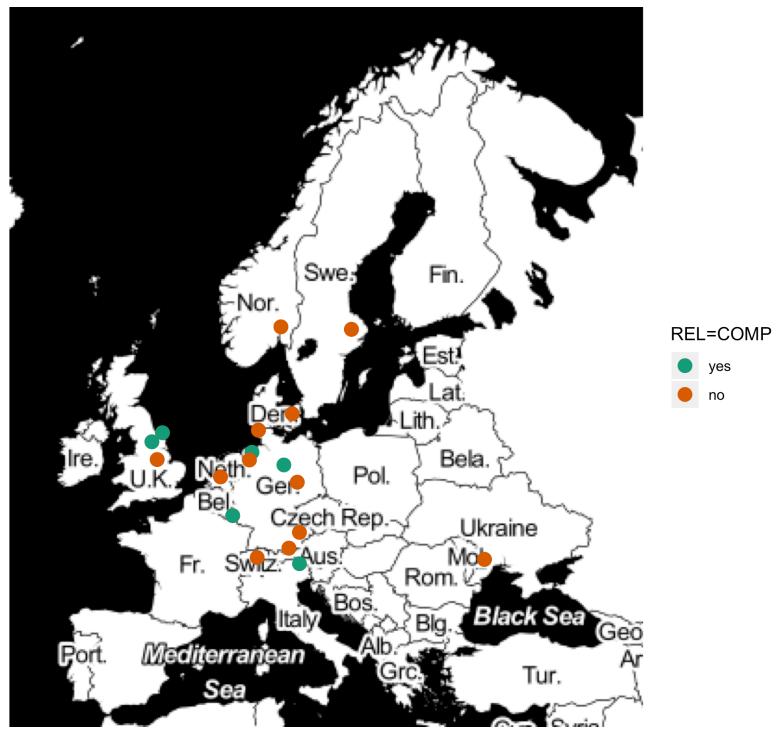


Figure 10: Geographical distribution of relatives used as complementizers in Germanic

Table 42: Gothic demonstrative pronoun with *ei* (Wright 1954:127)

	SG			PL		
	M	N	F	M	N	F
NOM	<i>sa-ei</i>	<i>þatei</i>	<i>sō-ei</i>	<i>þai-ei</i>	<i>þō-ei</i>	<i>þōz-ei</i>
ACC	<i>þan-ei</i>	<i>þatei</i>	<i>þō-ei</i>	<i>þanz-ei</i>	<i>þō-ei</i>	<i>þōz-ei</i>
GEN	<i>þiz-ei</i>	<i>þiz-ei</i>	<i>þizō-ei</i>	<i>þizēe-ei</i>	<i>þizēe-ei</i>	<i>þizō-ei</i>
DAT	<i>þamm-ei</i>	<i>þamm-ei</i>	<i>þizái-ei</i>	<i>þáim-ei</i>	<i>þáim-ei</i>	<i>þáim-ei</i>

invariable *izei* and *sei*, which are composed of a personal pronoun and *ei*, as relativizers (Afros 2010). Lastly, the complementizer *ei* and its variant form *þei* can mark relative clauses as well.

The interrogative pronouns have different forms altogether, namely the ones derived from PIE **kʷi/o-*, and are inflected in the same way. The nominative forms are *hwas* (m), *hva* (n), and *hvō* (f) (Wright 1954:129).

9.2 Old Norse (700-1300 CE)

Old Norse is the North Germanic language that later developed into various modern North Germanic languages, including Swedish, Danish, and Norwegian. Relative clauses in Old Norse are marked by a invariable *er* or *sem*. The latter was originally a comparative particle ‘as’. 259-260 Neither of them is used as a complementizer or an interrogative. In relative clauses with a head noun that has temporal reference, *nær* ‘when’ can be used to introduce the relative clause. Note that the interrogative ‘when?’ only partially overlaps with it: *hve nær* (Faarlund 2004:259-260). The relativizer *sem* goes back to the PIE numeral **sem-* ‘one’.

- (49) a. *er sú kona illa gift, [er þú átt]*
 is that woman.N badly married.F.N REL you own.2SG
 ‘The woman who is your wife made a bad marriage.’ (Faarlund 2004:259)
- b. *í annarri nqkkurri freistni [sem hann má annat tveggja yfirstíga með lofi eði undirliggja með brigslí]*
 in other some temptation.DAT REL he may other.ACC.N two.GEN overcome with praise.DAT or underlie with blame.DAT
 ‘in another temptation which he may either resist with praise or yield to with blame’ (Faarlund 2004:78)

9.3 Swedish

In Swedish, relative clauses are introduced by the invariable *som*, which continues Old Norse *sem* (Holmes & Hinchliffe 2013:201). In the written form, the genitive form *vars* ‘whose’ and the interrogatives *vilkas* ‘which’ are used as singular and plural genitive forms of *som*, respectively. In the formal register of written Swedish, the interrogatives *vilket* and *vilken* ‘who, which, what’ are often used instead of *som* (Holmes & Hinchliffe 2013:89), cf. table 43. None of these forms is used as a complementizer.

- (50) a. *Ser du pojken [som leker därborta]?*
 see you boy REL play over.there
 ‘Do you see the boy who is playing over there?’ (Holmes & Hinchliffe 2013:89)

Table 43: Swedish relativizers

REL		INT	usage
<i>som</i>		-	spoken
<i>vilket</i>	SG	which.SG	written
<i>vilken</i>	PL	which.PL	written
<i>vars</i>	GEN.SG	-	written
<i>vilkas</i>	GEN.PL	(<i>vilka</i> ‘who.PL’)	written

- b. *Föräldrarna, [vars/vilkas dotter ska gifta sig], är sjuka.*
 parents REL daughter get.married her are ill
 ‘The parents whose daughter is getting married are ill.’ (Holmes & Hinchliffe 2013:89)

9.4 Norwegian

Like in Swedish, Norwegian has an invariable relativizer *som*, which is the primary strategy used in the spoken language. In the older written form of the language, the interrogative pronouns *hvem* ‘who’, *hva* ‘what’, and *hvilken/hvilket/hvilke* ‘which’ are used occasionally to mark relative clauses (Strandskogen & Strandskogen 1986:120-123).

- (51) a. *Den gutten som [går der], er broren min.*
 the boy REL walk there is brother my
 ‘The boy who is walking there is my brother.’ (Strandskogen & Strandskogen 1986:120)
- b. *Det er et menneske [i hvem det ikke er svik].*
 that is the person in REL that not is betrayal
 ‘That is a person in whom there is no betrayal.’ (archaic) (Strandskogen & Strandskogen 1986:123)

9.5 Afrikaans

The main marker of relative clauses in Afrikaans is the invariable interrogative *wat* ‘what’. Due to the growing influence of English, *wie* ‘who’ is now also sometimes used in RC (Donaldson 1993:145-147). With non-human antecedents the interrogative *waar* ‘where’ has to be used with prepositions in the written language, but in the spoken form *wat* is also acceptable (Donaldson 1993:148). In the written form of the language, *welke* ‘which’ can also be used, but this is perceived as archaic (Donaldson 1993:322).

- (52) a. *Wat praat jy nou van?*
 what talk you now of
 ‘What are you talking about now?’ (Donaldson 1993:324)

²⁹ Word-by-word translation by SA.

²⁹ Word-by-word translation by SA.

- b. *Aan wie het jy dit gegee?*
 to who have you this given
 ‘Who did you give it to?’ (Donaldson 1993:324)
- c. *Waar bly jy?*
 where stay you
 ‘Where do you live?’ (Donaldson 1993:323)
- d. *Die man [wat hier langsaan bly], is ’n Amerikaner.*
 the man REL here next stay is a American
 ‘The man who lives next-door is an American.’ (Donaldson 1993:146)
- e. *Parkerig streng verbode behalwe persone [wie magtiging daartoe het].*
 parking strictly forbidden except people who authorization for have
 ‘Parking strictly forbidden except for persons who have permission.’ (Anglicism) (Donaldson 1993:146)
- f. *Dis dinge waar-van ons nooit praat nie.*
 this things REL-of we never talk not
 ‘They are things that we don’t talk about.’ (Donaldson 1993:147)

9.6 Dutch

In Dutch, both a demonstrative and interrogatives are used as relative markers, but with a division along the lines of animacy, number, and syntactic role without there being a paradigm in the strict sense. The forms and their distribution are (Donaldson 2008:86-87):

<i>dat</i>	neuter gender sg
<i>die</i>	common gender sg, both PL
<i>wie</i>	oblique common gender (with a preposition before)
<i>waar-</i>	oblique neuter gender (with a preposition added after the -)

The oblique form for human antecedents is the interrogative ‘who’ and the one for neuter gender is the interrogative ‘where’, while the other forms are demonstratives. In the spoken language, the oblique form for neuter gender is sometimes used with common gender antecedents as well. In very formal written Dutch, genitive forms (*wiens/wier/welks*) are used but these absent from the spoken language (Donaldson 2008:90).

- (53) a. *de man [die hier woont] is oud.*
 the man that here lives is old
 ‘The man who lives here is old.’ (Donaldson 2008:86)
- b. *het boek [dat ik nu lees] is erg lang.*
 the book that I now read is really long
 ‘The book I’m reading right now is really long.’ (Donaldson 2008:86)
- c. *de man [met wie ik in de winkel stond te praten], is mijn oom.*
 the man with who I in the shop stood to talk is my uncle
 ‘The man to whom I was talking in the shop is my uncle.’ (Donaldson 2008:87)

²⁹ Word-by-word translation by SA.

Table 44: German definite article

	M	N	F	PL
NOM	<i>der</i>	<i>das</i>	<i>die</i>	<i>die</i>
GEN	<i>dessen</i>	<i>dessen</i>	<i>der(en)</i>	<i>der(en)</i>
DAT	<i>dem</i>	<i>dem</i>	<i>der</i>	<i>den(en)</i>
ACC	<i>den</i>	<i>das</i>	<i>die</i>	<i>die</i>

- d. *de stoel [waar-op jij zit] is van mij.*
 the chair that-on you sit is of me
 ‘The chair you’re sitting on is mine.’

(Donaldson 2008:87)

9.7 Standard German

In German, relative clauses are primarily marked by the definite article which is inflected for case, gender, and number. Interrogatives can be used as RC markers when describing time, space, or manner, cf. 54b. In the spoken language, the interrogative is more common, while it is rare in the written language (Zifonun 2001:72, 78) In the colloquial language, interrogative-marked RCs are common and in some regions in the south of Germany, the interrogative *wo* ‘where’ has been generalized to a relativizer (as in Swiss German, cf. 9.11) in the substandard language (Zifonun 2001:78-79). None of these forms is used as a complementizer; rather the general complementizer *dass* is derived from a demonstrative pronoun (Zifonun 2001:73).

- (54) a. *Natürlich haben die Mensch-en die Kandidat-en gewählt, [die Änderung-en of.course have.PRS.3SG DEF.PL person-PL DEF.PL candidate-PL elect.PTCP REL.NOM.PL change-PL wollen].*
 want.PRS.3SG
 ‘Of course the people elected the candidates that want change.’ (Zifonun 2001:72)
- b. *die Stadt [wo/in der du wohnst]*
 DEF.NOM.SG.F city.F where/ in REL you live.PRS.2SG
 ‘the city where you live’ (Zifonun 2001:78)

9.8 Luxembourgish

Luxembourgish uses the invariable interrogative *wou* ‘where’ as the general RC marker (Schanen 2004:180). Demonstratives, which are inflected for case, gender, and number, can also be used to introduce relative clauses (Schanen 2004:159). The description is very brief, and it is not mentioned when the demonstratives are used as opposed to the interrogative *wou*. Neither of these forms is used as a complementizer (which has the form *datt/dass*) (Schanen 2004:194).

- (55) a. *déi fra, [wou komm ass]*
 that woman REL come is
 ‘that woman, who came’ (Schanen 2004:193)

²⁹ Glossing and translation by SA.

Table 45: Luxembourgish demonstrative pronoun (Schanen 2004:159)

	M	N	F	PL
NOM-ACC	<i>deen</i>	<i>dat</i>	<i>déi</i>	<i>déi</i>
DAT	<i>deem</i>		<i>deer, där</i>	<i>deene(n)</i>
GEN	<i>dees, däs, däers</i>		<i>deer, därer</i>	<i>deer, där</i>

Table 46: Old High German demonstrative-relative pronoun (sg only) (Paul 1998:223)

	M	N	F
NOM	<i>dér</i>	<i>daz</i>	<i>diu</i>
GEN	<i>dës</i>		<i>dëra</i>
DAT	<i>dëmo</i>		<i>dëru</i>
ACC	<i>dën</i>	<i>daz</i>	<i>dia</i>
INS	<i>diu</i>		-

- b. *déi fra, [mat där si komm sinn]*
 that woman with REL they come are
 ‘that woman with whom they came’

(Schanen 2004:193)

9.9 Old High German (750–1050 CE)

As in other early Germanic languages, Old High German had several strategies for marking relative clauses: the demonstrative pronoun alone, the demonstrative pronoun combined with one out of two sets of relative particles, or by the relative particles alone (Sonderegger 2003:313). Interrogatives were not used as RC markers, though. The nominative-accusative singular neuter form *daz* of the demonstrative-relative is also used as a complementizer (Sonderegger 2003:351).

- (56) a. *thero manno, [thi ih hera nu bat]*
 DEM.PL.GEN man.PL.GENREL 1SG here now asked
 ‘[none] of the men that I asked to come now’ (Coniglio et al. 2017:103)
- b. *Iudas Scarioth, [ther inan uuas selenti]*
 Judas Iscariot DEM.NOM.SG.M 3SG.ACC was betraying
 ‘Judas Iscariot who should betray him’ (Coniglio et al. 2017:104)

9.10 Middle High German (1050–1350 CE)

Like in Old High German, Middle High German exhibits a range of different strategies to mark RCs, including the demonstrative pronoun, local adverbs, and conjunctions, but not interrogatives. The most frequent strategy is the demonstrative pronoun alone (cf. Table 47), or together with a particle *der*, *dir*, *dar*, *da* (which originally had a locative meaning). The local adverbs *dâ* ‘where’, *dar* ‘where to’, and *dannen* ‘from where’ are sometimes used in non-local contexts as well. Rarely, the conjunctions *so* ‘so’ and *und* ‘and’ can mark relative clauses as well (Paul 1998:413-416). The complementizer is the nominative-accusative singular neuter form of the demonstrative *daz*, just like in Old High German.

Table 47: Middle High German demonstrative pronoun (sg only) (Paul 1998:223)

	M	N	F
NOM	<i>dér</i>	<i>daz</i>	<i>diu</i>
GEN	<i>dès</i>		<i>dér(e)</i>
DAT	<i>dém(e)</i>		<i>dér(e)</i>
ACC	<i>dën</i>	<i>daz</i>	<i>die</i>
INS	-	<i>diu</i>	-

- (57) a. *dir armin vant her genug, [die dir selide niht hattin]*
 DEF. poor find.PST.3SG 3SG.NOM.SG enough REL.NOM.PL REL lodging.F not have.PST.3SG
 ‘he found many poor people who did not have a home’ (Paul 1998:373)
- b. *man huop in von der bâre, [dâ er ûfe lac]*
 one 3SG.ACC from DEF.DAT.F stretcher.DAT.F REL 3SG.NOM on lie.PST.3SG
 ‘and they lifted him from the stretcher on which he was lying’ (Paul 1998:414)
- c. *iu sol verbieten got, und allen mînen vriunden, [daz si deheinen spot an mir armer üeben]*
 2PL.DAT should.3SG forbid.INF God and all.PL.DAT my.DAT.PL friend.DAT.PL COMP 3PL any
 mockery on 1SG.DAT poor carry.out
 ‘God should forbid you, and all of my friends, to mock poor me in any way’ (Paul 1998:438)

9.11 Swiss German

This description is based on the dialect spoken in the capital Bern, but applies to most other dialects as well. Relative clauses are marked by the invariable interrogative *wo* ‘where’, cf. 58a and 58b. This form is not used as a complementizer.

- (58) a. *Wo wohnsch itz?*
 where live.2SG now
 ‘Where do you live now?’
- b. *Dä rock [wo du an-hesch] han-i o.*
 DEM dress REL 2SG.NOM on-have.2SG have-1SG too
 ‘I also have that dress you are wearing.’

9.12 Western Yiddish

Western Yiddish RCs are marked by the invariable interrogative *vos* ‘what’. Note that it is invariable also in its interrogative function. Less frequently, the attributive interrogative ‘which’ *velx-* is also found in relative clauses. It inflects for case, gender, and number, but the full paradigm is not provided in the grammar (Jacobs 2005:188). Complement clauses are marked by the general complementizer *az*, and not by either of these forms (Jacobs 2005:232).

Table 48: Old Saxon demonstrative pronoun (Holthausen 1921:121)

	M.SG	N.SG	F.SG	M/F.PL	N.PL
NOM	<i>thē, the, thie</i>	<i>that</i>	<i>thiu, thia</i>	<i>thea, thia</i>	<i>thiu</i>
ACC	<i>thena, thana</i>	<i>that</i>	<i>thia, thea</i>		
GEN	<i>thes</i>	<i>thes</i>	<i>thera, theru</i>	<i>thero, thera</i>	<i>thero, thera</i>
DAT	<i>themu, them</i>	<i>themu, them</i>	<i>theru, thera</i>		
INS	<i>thiu</i>	<i>thiu</i>	-	<i>thēm, thēn</i>	<i>thēm, thēn</i>

- (59) a. *vos lejant di froj hajnt in park?*
 what reads the woman today in park³⁰
 ‘What is the woman reading today in the park?’ (Jacobs 2005:228)
- b. *di froj [vos lejant dos bux] iz a lerārin*
 the woman REL reads the book is a teacher
 ‘The woman who is reading a book is a teacher.’ (Jacobs 2005:188)
- (60) a. *velxar brudar kumt hajnt?*
 which brother comes today
 ‘Which brother comes today?’ (Jacobs 2005:188)
- b. *der man [mit velxn ix hob garedt], iz zejr rajx*
 the man with REL 1SG have speak.PTCP now be.3SG rich
 ‘The man with whom I spoke is very rich now.’ (Jacobs 2005:188)

9.13 Old Saxon (500 – 1200 CE)

Old Saxon relative clauses can be marked by the demonstrative pronoun alone, the demonstrative pronoun together with one of the particles *thār* or *the*, by one of the particles *the, thē, thi* alone or combined with *thār*, by local adverbs, or by the conjunction *so*. Very rarely, an interrogative is found as a relative clause marker, but this is not productive yet (Holthausen 1921:192-193). These strategies are more or less the same as those in Old and Middle High German. The neutral nominative-accusative singular of the demonstrative pronoun *that* is also used as a complementizer (Holthausen 1921:194).

- (61) a. *thena balkon [the thū habes]*
 DEM balcony REL 2SG have.2SG
 ‘this balcony that you have’³¹ (Holthausen 1921:192)
- b. *farstōd [that hie hērron habdun]*
 understand.PST.3SG COMP here Lord have
 ‘he understood that here they had Lord’ (Holthausen 1921:192)

9.14 Eastern Frisian

In Eastern Frisian, RCs are marked by the invariable common gender singular demonstrative *däi* (Matras & Reershemius 2003:23, 57). It is not inflected as demonstrative either. The neuter gender

³¹ Glossing and free translation by SA.

Table 49: Old English distal demonstrative-relative pronoun (Quirk & Wrenn 1957:39)

	M.SG	N.SG	F.SG	PL
NOM	<i>se</i>	<i>Pæt</i>	<i>sēō</i>	<i>Pā</i>
ACC	<i>Pone</i>	<i>Pæt</i>	<i>Pā</i>	<i>Pā</i>
GEN	<i>Pæs</i>	<i>Pæs</i>	<i>Pære</i>	<i>Pæra</i>
DAT	<i>Pæm</i>	<i>Pæm</i>	<i>Pære</i>	<i>Pæm</i>
INS	<i>Pȳ</i>	<i>Pȳ</i>	<i>Pære</i>	<i>Pæm</i>

form of the demonstrative *dat* is used as a complementizer (Matras & Reershemius 2003:59), which means that the two forms are related but not identical. The interrogative *wåår* ‘where’ is used in relative clauses specifying location, but not as a general relativizer (Matras & Reershemius 2003:58).

- (62) a. *Nu is də weer n anə generatsjoun [däi n biitjə jungədə is].*
now is there again an other generation REL a little younger is
‘Now there is again another generation that is a little younger.’ (Matras & Reershemius 2003:58)
- b. *Wail anəs is ja nix in Campn wåår man hängåån kan.*
because otherwise is DM nothing in Campen REL one go.there.INF can
‘Because otherwise there isn’t anywhere else in Campen where one can go.’ (Matras & Reershemius 2003:57)

9.15 Old English (500 – 1200 CE)

Old English had multiple strategies for marking RCs. The most frequent one is the invariable *þe*, which was sometimes preceded by a distal demonstrative, but not necessarily so. The element is also used as a complementizer. The distal demonstrative pronoun, inflected for case, number, and gender, was also used as an RC marker without *þe* (Quirk & Wrenn 1957:72-73).

- (63) a. *for Óswaldes geearnungum [þe hine æfre wurðode]*
for Oswalds.GEN merit.DAT.PL REL 3SG.ACC.M always worhip.PST
‘for Oswalds merit who constantly worshipped him’ (Quirk & Wrenn 1957:98)
- b. *tō Westseaxena kyninge (...) [sē wæs ðāgīt hæðen]*
to West.Saxon.GEN.PL king.DAT.SG.M (...) REL.NOM.SG.M be.PST.3SG still heathen.man.NOM.SG.M
‘to the king of the West Saxons who was still heathen’ (Quirk & Wrenn 1957:98)

9.16 Middle English (1200 – 1600 CE)

The invariable relativizer *þe* that was most common in Old English is falling out of use after the 12th century, being replaced by the also invariable *þat*, the nominative-accusative singular

³¹ Glossing by SA.

neuter form of the demonstrative pronoun (Brunner 1970:64). The same form *bat* is also used as a complementizer. The inflected demonstrative pronoun falls out of use as an RC marker as well (Brunner 1970:65). It is in this period, that interrogatives start to be used in headed RCs, but only in combination with the relativizer *bat*, cf. 64b (Geoghegan 1975:43-44).

- (64) a. *& in the Zodiak ben the signes [Pat han names of bestes]*
 and in the zodiac be.3PL the sign.PL REL have.3PL name.PL of beast.PL
 ‘and in the zodiac are the signs that have names of beasts’ (Geoghegan 1975:44)
- b. *thy zodiak of thin Astralabie is shapen as a compas [wich Pat contenith a large brede]*
 the zodiac of the Astrolabe be.3SG shaped like a compass which REL contain.3SG a large breadth
 ‘The zodiac of the Astrolabe is shaped like a compass which has a large breadth’ (Geoghegan 1975:44)
- c. *and she desyreth of hym [that he schuld schewe you the endentures mad betwen the knyght (...) and hym]*
 and she desire.3SG of him COMP he should show.3SG you the indenture.PL made between the knight (...) and him
 ‘and she desires of him that he should show you the indentures made between the knight and him’ (Geoghegan 1975:48-49)

9.17 Modern English

In Modern English, relative clauses are marked either by invariable *that* or by interrogative pronouns. Invariable *that* is also used as a complementizer and a demonstrative pronoun (Carter & McCarthy 2006:566-568).

- (65) a. **Who** is your favorite footballer? (Carter & McCarthy 2006:388)
- b. The woman [**who** I have the form to] was quite friendly. (Carter & McCarthy 2006:568)
- c. The other girl [**that** I told you about] also lives in Bristol. (Carter & McCarthy 2006:566)
- d. The company’s director stated [**that** the first six months were good] (Carter & McCarthy 2006:558)

9.18 Old Frisian (1100 – 1550 CE)

As other early Germanic languages, Old Frisian had multiple elements used as RC markers (Bremmer 2009:57-58):

- the definite article *thī, thiu, thet* (rarely also used as a demonstrative), cf. 66b
- the invariable *thēr*, originally a local adverb ‘’, cf. 66a
- the invariable particle *thē*

The interrogative pronouns *hwā* ‘who’ and *hwet* ‘what’ are also mentioned by Bremmer (2009:57-58), but based on the examples presented in Bor (1986) it seems that they are confined to headless relatives. This means that the situation in Old Frisian is very similar to that in Middle English that was spoken in about the same time period and to which it is closely related.

- (66) a. *thet lond [ther thu mi to askast]*
 that land REL you me to asked
 ‘the land that you calim from me’ (Bor 1986:69)
- b. *dje aerste grewa jn Holland [thi hiet Dirch]*
 the first governor in Holland REL be.called Dirch
 ‘the first governor of Holland who was called Derrick’ (Bor 1986:59)

9.19 Northern Frisian

In Northern Frisian, there are multiple ways of marking RCs: with the local adverb *diar* ‘there’, with the interrogative *wat* ‘what’, and with the interrogative *hur* ‘where’, which is mostly restricted to obliques in RCs. Even though there might have been a functional division in the past, there is no distinction anymore between the three markers. All of them are used with humans, animals, and objects (Lasswell 1998:288). None of these forms is used as a complementizer (Lasswell 1998:294).

- (67) a. *diar es en gansi masi liren [diar jit jens snaket mi üp Sölringön]*
 there is a whole mass people REL yet once talk me on Sölring in
 ‘There are still a lot of people who address me in Sölring.’ (Lasswell 1998:288)
- b. *di-diar trii jungen [wat diar hoogdütsk snaket]*
 the-there three children REL there High.German talked
 ‘those three kids who spoke High German’ (Lasswell 1998:288)
- c. *hur kumst dü fan?*
 where come you from
 ‘Where are you from?’ (Lasswell 1998:279)
- d. *hi wil jen mensk haa [hur hi diar me aur snaki kür]*
 he wanted one human have REL he there with over talk could
 ‘He wanted to have one person he could talk to about it.’ (Lasswell 1998:289)

10 Italic

10.1 Oscan (500 BCE - 100 CE) and Umbrian (700 BCE - 100 CE)

There is limited material on both languages, leaving many gaps in the paradigms. As in Latin, the forms of the relative and interrogative pronoun are clearly related, but have somewhat different case forms. Due to the limitations just mentioned, it cannot be said with certainty whether all case forms were different from each other or not. It seems that the relative pronoun was only used with definite antecedents, while the interrogative one would have been used with indefinite antecedents in relative clauses. This is situation probably also held in early Latin (Buck 1904:144-145). We do not know how complement clauses were formed.

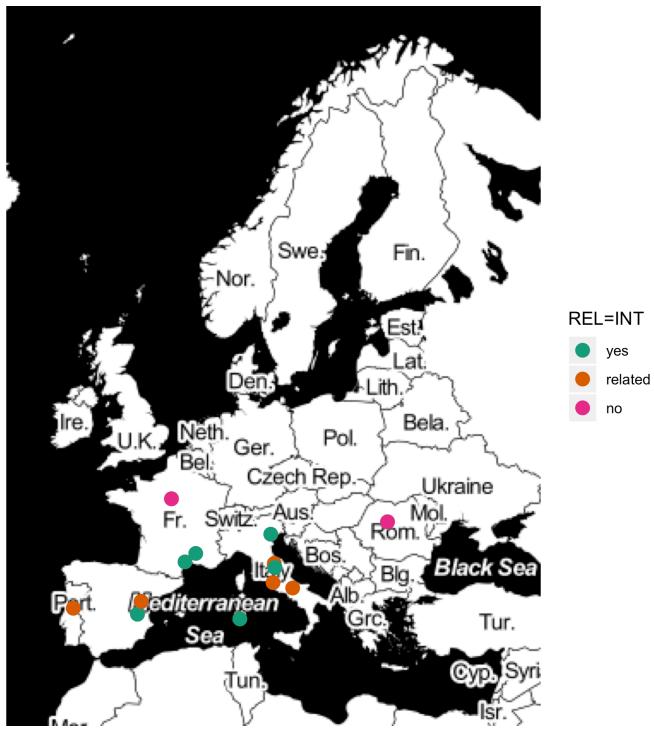


Figure 11: Geographical distribution of interrogatives as RC markers in Italic

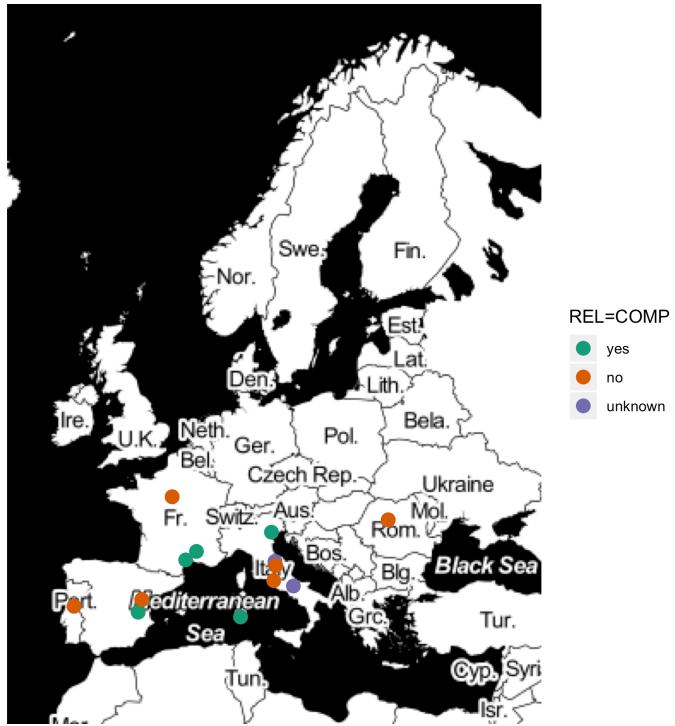


Figure 12: Geographical distribution of relatives used as complementizers in Italic

Table 50: Oscan and Umbrian relative and interrogative pronouns (Buck 1904:144-145)

Oscan		relative			interrogative	
	M	N	F		M/F	N
NOM.SG	<i>pui</i>	<i>púd</i>	<i>pái, pai, pae, paei</i>		<i>pís, pis</i>	<i>píd</i>
GEN.SG	<i>púiieh</i>	-	-		<i>pieisum</i>	-
DAT.SG	-	-	-		<i>piei</i>	-
ACC.SG	-	<i>pod</i>	<i>paam, pam</i>		<i>pim</i>	<i>píd, pid</i>
ABL.SG	-	-	<i>poizad</i>		-	-
NOM.PL	<i>pús</i>	<i>pái</i>	<i>pas</i>		-	-
ACC.PL	-	<i>pai</i>	-		-	-

Umbrian		relative			interrogative	
	M	N	F		M/F	N
NOM.SG	<i>poi, poe, poei</i>	-	-		<i>pisi</i>	<i>píre</i>
GEN.SG	-	-	-		-	-
DAT.SG	<i>pusme</i>	-	-		-	-
ACC.SG	-	-	-		-	-
ABL.SG	-	-	<i>pora</i>		-	-
NOM.PL	<i>pure, puri</i>	-	-		<i>pifi</i>	-
ACC.PL	-	-	<i>pafe</i>		-	-

10.2 Classical Latin (75 BC - 300 CE)

Based on the paradigm of the relative pronoun in Latin, it is coded as having 5 cases, 3 noun classes, and 2 number distinctions. The five case forms derive from the fact that highest number of case forms within one subpart of the paradigm is five, i.e. for masculine and feminine singular. Note that syncretism across noun classes, such as the dative singular form *cuius* being used for all three classes, do not affect this count. Neither do syncretisms across number distinctions, such as *quae* being used both as the plural neuter form and the singular feminine form. Latin relative pronouns are not used as complementizers. Complement clauses in Latin exhibit different coding strategies, such as the conjunction *ut*, an infinitive, or a participle, among others.

Table 51: Latin relative pronoun paradigm (Panhuus 2006:37)

	SG			PL		
	M	F	N	M	F	N
NOM	<i>qui</i>	<i>quae</i>	<i>quod</i>	<i>qui</i>	<i>quae</i>	<i>quae</i>
GEN	<i>cuius</i>	<i>cuius</i>	<i>cuius</i>	<i>quōrum</i>	<i>quārum</i>	<i>quōrum</i>
DAT	<i>cui</i>	<i>cui</i>	<i>cui</i>	<i>quibus</i>	<i>quibus</i>	<i>quibus</i>
ACC	<i>quem</i>	<i>quam</i>	<i>quod</i>	<i>quōs</i>	<i>quās</i>	<i>quae</i>
ABL	<i>quō</i>	<i>quā</i>	<i>quō</i>	<i>quibus</i>	<i>quibus</i>	<i>quibus</i>
	5	5	4	4	4	3

Table 52: Latin interrogative pronoun paradigm (Panhuis 2006:38)

	SG			PL	
	M/F	N	M	F	N
NOM	<i>quis</i>	<i>quid</i>	<i>qui</i>	<i>quae</i>	<i>quae</i>
GEN	<i>cuius</i>	<i>cuius</i>	<i>quōrum</i>	<i>quārum</i>	<i>quōrum</i>
DAT	<i>cui</i>	<i>cui</i>	<i>quibus</i>	<i>quibus</i>	<i>quibus</i>
ACC	<i>quem</i>	<i>quid</i>	<i>quōs</i>	<i>quās</i>	<i>quae</i>
ABL	<i>quō</i>	<i>quō</i>	<i>quibus</i>	<i>quibus</i>	<i>quibus</i>

Table 53: Romanian interrogative-relative pronoun (Cojocaru 2004:85)

	M	F	PL
NOM-ACC		<i>care</i>	
GEN-DAT	<i>cărei(a)</i>	<i>cărui(a)</i>	<i>cărор(a)</i>

10.3 Romanian

Romanian has two choices for marking relative clauses, one of which is an interrogative pronoun: *care* ‘which’ is inflected for case, number, and gender, although the paradigm is quite reduced, cf. Table 53 (Cojocaru 2004:85). In addition, there is a invariable relativizer *de* that is only used in the spoken language and is referred to as colloquial (Cojocaru 2004:82).³²

- (68) a. *Care dintre voi este român?*
 which among you be.3SG Romanian
 ‘Which (one) of you is Romanian?’ (Cojocaru 2004:83)
- b. *Fata [care stă lângă mine] este din Franța.*
 girl REL.NOM sit.3SG beside 1SG.ACC be.3SG from France
 ‘The girl who is seated next to me is from France.’ (Cojocaru 2004:85)

10.4 Standard Italian

In Standard Italian, the relativizer *che* is identical to the interrogative *che* ‘what’. When combined with prepositions, it takes the form *cui*, but is otherwise invariable. A second option consists in a combination of the article and the inflected interrogative *quale* ‘which’. This can be used in any type of relative clause, but often appears in contexts in which the invariable markers would be ambiguous. It is only rarely used in restrictive relative clauses, except in formal styles (Maiden & Robustelli 2007:131-134). Invariable *che* is also used as a complementizer (Maiden & Robustelli 2007:365).

- (69) a. *Che farei per avere una moto così?*
 what would.do.1SG for have.INF a motorbike like.that
 ‘What would I do to have a motorbike like that?’ (Maiden & Robustelli 2007:144)

³² I was not able to find an example of *de* in a full clause.

³² Glossing by SA.

Table 54: Italian relativizers
 ‘what’ ‘which’

NOM-ACC	<i>che</i>		
OBL	<i>cui</i>	SG	<i>ART + quale</i>
GEN	<i>ART + cui</i>	PL	<i>ART + quali</i>

- b. *È situato in quella fetta di pianura [che sta fra il Po e l'Appennino].*
 be.3SG situated in that slice of plain REL stand between the Po and the Apennines
 ‘It’s situated in that slice of plain that lies between the Po and the Apennines.’ (Maiden & Robustelli 2007:131)
- c. *Il luogo [da cui venivi] era lontano.*
 the place of REL.OBL come.PST.2SG be.PST.3SG far
 ‘The place from which you came was distant.’ (Maiden & Robustelli 2007:133)
- d. *Sapevo [che avevi paura].*
 know.PST.1SG COMP have.PST.2SG fear
 ‘I knew that you were afraid.’ (Maiden & Robustelli 2007:366)

10.5 Venetian

In Venetian, the invariable interrogative *che* ‘what’ is used. The same form is also used as a complementizer (Belloni 2006:55, 57, 124). This is the only option for headed relative clauses.

- (70) a. *Che ora xe?*
 what hour be.3SG
 ‘What time is it?’ (Belloni 2006:57)
- b. *L’albero, [che xe in corte], perde le foje.*
 the.tree REL be.3SG in yard lose.3SG the leave.PL
 ‘The tree in the yard loses its leaves.’ (Belloni 2006:55)
- c. *Mi spero [che ’l vegna].*
 1SG hope.1SG COMP 3SG come.3SG
 ‘I hope that he comes.’ (Belloni 2006:124)

10.6 French

In French, the interrogative *qui* ‘who’ is used as a relative clause marker (Batchelor & Chebli-Saadi 2011:473). It takes different forms depending of its syntactic function and animacy, although there is a lot of overlap and it is questionable whether these forms are a part of a paradigm in the traditional sense. Note also that the distribution of the forms slightly differs between the interrogative and relative pronoun, cf. Table 55. The form *que* is not used by itself anymore as an interrogative ‘what’ having been replaced by the longer construction *qu'est-ce qui/que*. It is used as a complementizer, though.

³² Glossing by SA.

³² Glossing and translation to English by SA.

Table 55: French interrogative and relative pronoun (Batchelor & Chebli-Saadi 2011:473, 486, 490)

	relative		interrogative	
	human	inanimate	human	inanimate
SUBJ	<i>qui</i>	<i>qui</i>	<i>qui</i>	<i>qu'est-ce qui</i>
DIR.OBJ	<i>que</i>	<i>que</i>	<i>qui</i>	<i>qu'est-ce que</i>
GEN	<i>dont, de qui</i>	<i>dont, duquel</i>	<i>de qui</i>	-
PREP	<i>qui, lequel</i>	<i>lequel</i>	<i>qui</i>	<i>quoi</i>

Table 56: Relatives and interrogatives in Old Occitan (Anglade 1921:252-253)

	relative		interrogative	
	M/F (ANIM)	N (INAN)	M/F (ANIM)	N (INAN)
NOM	<i>qui, que</i>	<i>que(z)</i>	<i>qui</i>	<i>que</i>
OBL	<i>cui, que</i>	<i>que(z)</i>		

- (71) a. *Qui avait la clef de la porte?*
 who have.PST.3SG the key of the door
 ‘Who had the door key?’ (Batchelor & Chebli-Saadi 2011:486)
- b. *le monsieur [à qui j'ai donné le document]*
 the man to REL.SUBJ 1SG.have give.PTCP the document
 ‘the gentleman I gave the document to’ (Batchelor & Chebli-Saadi 2011:474)
- c. *Je crois [que c'est la première à gauche].*
 1SG believe.1SG it.is the first to left
 ‘I think it's the first (street) on the left.’ (Batchelor & Chebli-Saadi 2011:709)

10.7 Old Occitan (700-1400 CE)

In Old Occitan, the relative and interrogative are nearly identical, except that the interrogative has lost all case marking, while the relative has retained a nominative vs. oblique (accusative, dative, genitive) distinction (Anglade 1921:252-254). The form *que* was also used as an all-purpose subordinator, including functioning as a complementizer (Paden 1998:230).

- (72) a. *que m'en lauzatz?*
 what me.to advise.2SG
 ‘What do you advise me?’³² (Paden 1998:235)
- b. *E fetz aquestas chansons [que vos auzirez].*
 and make.PST.3SG these songs REL 2PL hear.FUT.2PL
 ‘And he made these songs that you will hear.’ (Paden 1998:230)

³² Glossing and translation by SA.

³³ Glossing by SA. There was no example of a complement clause in the materials available to me.

10.8 Occitan

In present-day Occitan, relative clauses are marked with invariable interrogative *que* ‘which, what’ Blanchet 1999:86, 92-94. It is also a general complementizer, as illustrated in 73c (Wheeler 1988:274-275)

- (73) a. *En qué servis aquò?*
in what work.3SG that
'What is that for?' (Wheeler 1988:269)
- b. *la dròlla [que canta]*
the girl REL sing.3SG
'the girl who is singing' (Wheeler 1988:275)
- c. *quan credó [que la mort que tustava au portau]*
when think.PST.1SG COMP the death
'when he thought death was knocking on the door' (Wheeler 1988:274)

10.9 Old Spanish (900-1500 CE)

Relative clauses in Old Spanish are marked by interrogatives: for human antecedents, *qui* and *quien* are used interchangeably, while inanimates are referred to by *que*. The possessive relative pronoun *cuyo/a* was still in use as an interrogative, as in 74a – this is preserved in the Spanish of the Canaries and parts of America, but not the modern standard (cf. 10.10) (Penny 2002:146-147).

- (74) a. *¿cuyo es?*
whose be.3SG
'Whose is it?' (Penny 2002:147)
- b. *¿Qué me darás?*
What me give.FUT.2SG
'What will you give me?' (Bouzouita & Kempson 2006:258)
- c. *el ssu plazo [que tomado ha de mano]*
the his place REL taken has of hand
'his place that he has taken at hand' (Fischer 2014:58)
- d. *E dize Séneca [que fuerte es el que viene]*
and says Seneca COMP strong is he who comes
'And Seneca says that the one who comes is strong.' (Fischer 2014:61)

10.10 Standard Spanish

In Spanish relative clauses are marked by interrogatives. The most common one is the invariable *que* ‘what’, which is also used as a complementizer, cf. 75b and 75c. In the orthography, the interrogative use is distinguished from the other two by the addition of an acute accent, but the pronunciation is the same across all three functions. As in many other Italic languages, this pronoun can also be combined with the article to indicate the role of the head noun in the relative clause. In more formal contexts, *el/la cual* is used instead of *el/la que*. For human antecedents, *quien* ‘who’ can be used as well. When the antecedent functions as a genitive, the inflected *cuyo/cuya* is used in the written language. This is the only RC marker that is not used as an interrogative (Kattán-Ibarra & Howkins 2008:186-188).

- (75) a. *¿Qué hiciste?*
 what do.PRF.2SG
 ‘What did you do?’
- b. *La niña [que está sentada aquí] es mi prima.*
 ART.F girl REL be.3SG sitting.F here be.3SG my cousin.F
 ‘The girl who is sitting here is my cousin.’
- c. *Pienso [que tienes razón].*
 think.1SG COMP have.2SG reason
 ‘I think that you are right.’

10.11 Standard Portuguese

Portuguese uses the interrogatives *que* ‘what’ and *quem* ‘who’ to mark relative clauses. The latter is restricted to human antecedents with prepositions. There is also a possessive relative pronoun *cupo/a* that agrees with the head noun in gender and number. It is the only form that is not used as an interrogative. (Hutchinson & Lloyd 2003:49). In the written language, there is also an inflected relative pronoun *o qual*, but this is not used in colloquial Portuguese (Hutchinson & Lloyd 2003:50-51). For locations, the interrogative *onde* ‘where’ is used. The interrogative *que* is also used as a complementizer, as in many other Italic languages (Hutchinson & Lloyd 2003:101).

- (76) a. *Que queres?*
 what want.2SG
 ‘What do you want?’ (Hutchinson & Lloyd 2003:51)
- b. *Aquela rapariga [que falou contigo na festa é minha prima].*
 that girl REL spoke with.you at party is my cousin
 ‘That girl who spoke to you at the party is my cousin.’ (Hutchinson & Lloyd 2003:49)
- c. *O rapaz [com quem falei é de Lisboa].*
 the boy with REL spoke is from Lisbon
 ‘The boy whom I talked to is from Lisbon.’ (Hutchinson & Lloyd 2003:50)
- d. *A Maria disse [que também vinha connosco].*
 the Maria say.PST.3SG COMP also come.3SG with.us
 ‘Maria said that she was also coming with us.’ (Hutchinson & Lloyd 2003:101)

10.12 Campidanese Sardinian

Campidanese Sardinian uses the invariable interrogative *ki* ‘who’ to mark relative clauses. In that respect it differs from the other modern Italic languages surveyed here, in which the general relativizer is the inanimate interrogative ‘what’. (Jones 1993:293-297) The same marker is also used as a complementizer (Madrigale et al. 2009:124-125) (Jones 1993:247).

- (77) a. *A kie as vistu?*
 OBJ who.ACC have.2SG see.PTCP
 ‘Who did you see?’ (Jones 1993:204)
- b. *su libru [ki devo léghere]*
 the book REL must.1SG read.INF
 ‘the book that I must read’ (Jones 1993:294)

- c. *Timo [ki su trenu siat in ritardu].*
 be.afraid.1SG COMP the train be.SUBJ.3SG in delay
 'I'm afraid that the train may be late.'

(Jones 1993:247)

11 Celtic

11.1 Transalpine Gaulish (300 BCE – 500 CE)

Transalpine Gaulish is a fragmentarily attested continental Celtic language. One of the inscriptions features an element *io* which is interpreted by most scholars as a relative particle going back to PIE **yo*- . Although other aspects of the inscription are still under discussion (e.g. the exact semantics of the verb, cf. 78), this one seems to be uncontroversial. The relevant part of the inscription and its translation are given in 78. Even though interrogatives are not attested in Gaulish, it is highly likely that they would be reflexes of PIE **kwi-/kwo-*, as in virtually all other IE languages.

- (78) gobedbi · [*dugiionti-io ucuetin in {} alisia*]³⁴
 smith.DAT.PL serve.3PL-REL Ucuetis.ACC.SG in Alisia
 'to the smiths who serve Ucuetis in Alisia' (RIG L-13) (Eska 2003:101)

11.2 Old Irish (500 – 1000 CE)

Relativization in Old Irish was not marked by a relative pronoun or a relativizer. Rather, it was indicated by mutations on the verb in the RC, such as nasalization. This nasalization, however, was used for a wide range of subordinate clauses and not just relative clauses (Ó hUiginn 1986). As such, there was no opportunity for the use of interrogatives as rC markers. The marker *a*, which became the default relativization marker in Modern Irish, was already present in Old Irish, although very rare and only used with prepositions.

11.3 Modern Irish

As mentioned above, Modern Irish uses invariable *a* to mark relative clauses (Ó Siadhail 1989:311). This is not a pronoun and not used as an interrogative or a complementizer (Ó Siadhail 1989:254).

- (79) a. *Feicim an fear [a bhí ag péinteáil na fuinneoge].*
 I.see the man REL was at painting the window
 'I see the man who was painting the window.' (Ó Siadhail 1989:311)

³³ Glossing by SA.

³⁴ The middle dot represents a word-separating character, the curly brackets indicate an unreadable character. For more details see the complete transcription of the inscription in Eska 2003:101.

11.4 Welsh

RC in Welsh are structurally similar to content questions in that both types of clauses are marked by soft mutation (lenition) of the verb. Interrogatives cannot be used as RC markers, except for expressions of time with *pryd* ‘when’, of space with *lle* ‘where’, and of reason why *pam* ‘why’. In very archaic literary writing, the RC can also be introduced by a demonstrative pronoun, but this is the result of translation from other languages and is no longer in use (Borsley et al. 2007:118-119). In the literary language, there is a particle *a* that introduces subject and object relatives, but with prepositions *y* is used. This situation is similar to the direct/oblique distinction found in many Indic languages, but in Literary Welsh, there is also a resumptive pronoun (Tallerman 1990:294). Finite complement clauses are generally unmarked, although in the literary form of the language the particle *y* can be used (Borsley et al. 2007:75).

- (80) a. *O le dach chi 'n dod?*
from where be.PRS.2PL you PROG come.INF
'Where do you come from?' (Borsley et al. 2007:116)
- b. *y dyn [gafodd y wobr]*
the man get.PST.3SG the prize
'the man who got the price' (Borsley et al. 2007:118)
- c. *y ardal [lle gafodd ei fagu]*
the district where get.PST.3SG 3SG.M raise.INF
'the district where he was brought up' (Borsley et al. 2007:119)

Glosses

1	first person	INAN	inanimate
2	second person	IND	indicative
3	third person	INDEF	indefinite
ABL	ablative	INF	infinitive
ACC	accusative	INS	instrumental
ANIM	animate	LNK	linker
AOR	aorist	LOC	locative
ART	article	M	masculine
ASP	aspect	N	neuter
AUX	auxiliary	NEG	negative
C	commune (gender)	NHUM	non-human
CLF	classifier	NMLZ	nominalizer
COMP	complementizer	NOM	nominative
CONN	connective	OBJ	object
COP	copula	OBL	oblique
CORR	correlative	OPT	optative
DAT	dative	PFV	perfective
DEF	definite	PL	plural
DEM	demonstrative	POSS	possessive
DIR	direct case	PRED	predicative
DIST	distal	PRET	preterite
DM	discourse marker	PRF	perfect
EMPH	emphatic	PROG	progressive
ERG	ergative	PROX	proximal
ETH	ethnic suffix	PRS	present
EZ	ezafe/izafet	PST	past
F	feminine	PTCP	participle
FUT	future	QUOT	quotative
GEN	genitive	RCH	relative clause head marker
GL	goal	REL	relative
HAB	habitual	SG	singular
HON	honorific	SRC	source
HUM	human	SUBJ	subjunctive
IMP	imperative	SUP	supine (non-finite verb form)
IMPF	imperfective	TR	transitive

Abbreviations

IE Indo-European

IRC interrogative-marked relative clause

PIE Proto-Indo-European

RC relative clause

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