Free Relative Clauses in Teramano*

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1. Introduction

This paper investigates the main morphosyntactic and semantic properties of free relative

clauses (henceforth, FRs) in Teramano, an Italian language from the Upper Southern group. FRs

are embedded non-interrogative wh-clauses lacking the nominal head that characterizes headed

relative clauses—this is why they have been labeled "free" and subsumed under the larger family

of headless relative clauses. Based on Caponigro (2003; 2004; 2021), we define FRs as follows:

(i) they are embedded clauses missing an argument or an adjunct (or with a resumptive

pronoun instead)

(ii) they are introduced by a wh-expression (i.e., a wh-word or a whole wh-phrase)

(iii) they have a distribution and interpretation similar to nominals (DPs), prepositional phrases

(PP) modifying VPs or higher functional layers in the clause, adverbial phrases (AdvP), or

adjectival phrases (AdjP) acting as clausal predicates.

The structure of FRs can be schematized as in (1), with the coindexed trace signaling the missing

constituent.

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responsible for any remaining mistakes or omissions.

¹ See also van Riemsdijk (2017) for an overview on the syntax of FRs and relevant literature and

Simík (2020) for an overview of their semantics and related work. See de Vries (2002: Ch. 2) for

a comprehensive discussion of the typology and terminology concerning relative clauses,

including headless relative clauses and FRs. Also, see Cinque (2013: Ch. 17, 2020) for a new

unifying approach to all the main varieties of relative clauses.

(1) $\begin{bmatrix} \text{MATRIX CLAUSE} & \dots & \begin{bmatrix} \text{FR WH-1} & \dots & t_1 & \dots \end{bmatrix} & \dots \end{bmatrix}$

Examples from English are given by the bracketed strings in (2)a and (3)a.

- (2) a. Chavela sang [FR what Frida liked].
 - b. Chavela sang [DP the song that Frida liked].
- (3) a. Martino left [FR when Niccolò left].
 - b. Martino left [PP at the time Niccolò left].

Despite being full clauses, FRs exhibit the same distribution and interpretation as DPs or PPs in argument or adjunct positions. In (2)b, the FR in (2)a has been replaced and paraphrased with the bracketed complex DP, which consists of the definite D head the, the N head song, and the headed relative clause that Frida liked modifying the N head song. The FR in (2)a, instead, combines with no D head or N head. Similarly, in (3)b, the FR in (3)a has been replaced and paraphrased with the bracketed PP taking a complex DP (containing a headed relative clause) as its complement. This syntactic and semantic behavior is unlike that of other well-known kinds of embedded clauses. Embedded declarative or interrogative clauses in argument positions or typical adjunct clauses introduced by a subordinator have a different distribution from FRs and/or convey a different meaning—some form of propositional content. Headed relative clauses—another wellknown kind of embedded clause—are associated with an overt nominal head whose meaning they restrict, as we see in (2)b and (3)b. This is a type of semantic behavior resembling that of nominal modifiers like attributive AdjPs or PPs, rather than that of full DPs, PPs modifying VPs or higher functional layers in the clause, AdvPs, or predicative AdjPs. On the other hand, FRs and headed relative clauses share the requirement for a constituent to be missing (or, sometimes, to be replaced by a resumptive pronoun). For instance, both the FR in (2)a and the headed relative clause in (2)b lack the object of the transitive predicate *liked*.

Although crosslinguistic investigation of FRs is still in its beginning stage, FRs have already been attested in Indo-European (Germanic, Romance, Slavic, Albanian, Modern Greek), Finno-Ugric (at least Estonian, Finnish, and Hungarian), Semitic (at least Modern Hebrew, Maltese, and Moroccan Arabic), and Haida (an isolate Native American language or a member of

the Na-Dene family according to some), as well as Mesoamerican language families like Mayan (at least Chuj, Ch'ol, K'iche', Q'anjob'al, Tseltal, Tsotsil and Yucatec Maya), Oto-Manguean (Matlatzinca, Me'phaa, Mixtec, Otomi), Uto-Aztecan (Náhuatl, Southeastern Tepehuan), and Mixe-Zoquean (Sierra Popoluca) (Caponigro 2003, Caponigro et al. 2013, Caponigro et al. 2021, Šimik, 2020, and references therein).

Besides FRs, another large class of headless relative clauses has been attested across languages: *light-headed relative clauses*. An example of light-headed relative clause in English is given in brackets in (4)a. The demonstrative D *those* acts like the "light head," introducing a relative clause (RC) without a nominal head. The light-headed relative (LHR) clause can be replaced and paraphrased with the complex DP containing a headed relative clause in (4)b.

- (4) a. Paola hired [LHR **those** [RC that Lea recommended].
 - b. Paola hired [DP those people [RC that Lea recommended].

Light-headed relative clauses are extremely productive in Teramano, as described in detail in Mantenuto & Caponigro (2020).

Overall, our paper provides the first systematic in-depth description of FRs in Teramano and highlights similarities and differences with two related constructions in the language—wh- interrogative clauses and headed relative clauses—as well as with the closest equivalent constructions in Italian. Our paper also contributes to the typological study of FRs (and headless relative clauses in general), the methodology for their crosslinguistic investigation, and the study of microvariation among Italian and Italian languages (Poletto & Sanfelici 2018a, 2018b, 2019).

The paper is structured as follows: section 2 provides some background information on Teramano, with a focus on *wh*-interrogative clauses and headed relative clauses. Section 3 presents the two main varieties of FRs that are attested in Teramano—*maximal free relative clauses* and *existential free relative clauses*—and argues that Teramano lacks the third main variety of FR that is found across languages—*free choice free relative clauses*. Section 4 concludes.

2. Teramano basics

Teramano (ISO: ita) is a language² spoken in the province of Teramo in Abruzzo, a central eastern region in Italy on the Adriatic coast with slightly more than 300,000 inhabitants. It belongs to the Upper Southern group (Pellegrini 1977) of Italian languages, and most of its speakers are bilingual. Indeed, Italian is the official language of the area, and not all people who live in Teramo are in fact fluent speakers of Teramano. Yet this language is widely used in the region.

Teramano exhibits SVO word order and is head initial, with the specifier to the left of the head, as shown in (5).

(5) Marie³ vo magnà lu timballe.⁴

Marie want.PRES.3SG eat.INF the.SG.M timballo.SG.M

'Marie wants to eat the timballo.'

In the next two subsections, we briefly introduce two constructions in Teramano that share morphosyntactic and/or semantic features with FRs: *wh*- interrogative clauses (§2.1) and headed relative clauses (§2.2).

2.1.Wh- interrogative clauses in Teramano

In this subsection, we sketch the main features of matrix and embedded *wh*- interrogative clauses in Teramano, with special emphasis on the set of *wh*-expressions that introduce them.

² We are going to refer to Teramano as "language" for consistency's sake, although we are aware that it has also been referred to as a "dialect."

³ In Teramano, the last vowel of many multisyllabic words (and a few monosyllabic ones) is [ϑ] because of a diachronic neutralization rule (Hastings 1997). In the standard orthography, which we are using for our transcriptions, [ϑ] is represented with e, while [e] is represented by \dot{e} .

⁴ The data are reported in Teramano's orthography, which is largely based on Italian orthography. The following abbreviations were used in the glosses: 1: first person; 2: second person; 3: third person; COMP: complementizer; DAT: dative; F: feminine; FC: free choice; INF: infinitival; LHR: light headed relative clause; M: masculine; PAST: past; POSS: possessive; PRES: present; PROGR: progressive; PRON: pronominal; PTCP: participle; RC: relative clause; REFL: reflexive; SG: singular.

Wh- interrogative clauses will then be used as the baseline wh- construction for our investigation of FRs in §3 and the wh-expressions in wh- interrogative clauses will be compared with those introducing FRs (and headed relative clauses).

Like Italian, Teramano forms matrix and embedded *wh*- interrogative clauses by fronting their *wh*-expression and, in the case of matrix interrogative clauses, by adding a clause-final raising intonation. For example, *che* 'what' in (6)a occurs in sentence initial position, after moving from the object position adjacent to the verb. Interrogative clauses with *in situ wh*-expressions are not allowed, not even as echo-questions, regardless of the position of the subject or any other constituent, as shown in (6)b,c.

Marie? (6) a. *Che* magne Marie what eat.PRES.3SG 'What is Marie eating?' Marie che? b. **Magne* Marie what eat.PRES.3SG c. *Marie magne che? Marie eat.PRES.3SG what

Table 1 lists all the *wh*-expressions used in Teramano, while sentences (7)–(15) exemplify the usage of each of those *wh*-expressions.

Table 1 Wh-expressions in Teramano

TERAMANO	TRANSLATION
ce^5	'who'
che	'what'/{'what/which' + NP}
addue/due/ue ⁶	'where'
quande	'when'
ʻnda ⁷	'how'
quande	'how much'
pecca	'why'
quande ⁸	'how much/many' (+ NP)

- (7) Ci'-a chiamate Marie?
 who-have.PRES.3SG call.PTCP Marie
 'Who did Marie call?'
- (8) [Che timballe] a cucinite Marie? what/which timballo.SG.M have.PRES.3SG cook.PTCP Marie 'What/Which timballo did Marie cook?'

⁵ Nowadays people also use *chi* for 'who' but it is probably borrowed from Italian. *Ce* is the historical wh-word for 'who' in Teramano (also reported as *ci* in Savini (1881)). Note that, whenever *ce* is followed by a vowel (for example, the auxiliary for the third person singular *a*), *ce* becomes ci '(ex. ce->ci '-a [$\widehat{\mathfrak{t}}[\widehat{\mathfrak{d}}]$ ->[$\widehat{\mathfrak{t}}[\widehat{\mathfrak{d}}]$).

⁶ To the best of our knowledge, these different *wh*-words for 'where' can all be used in interrogative as well as relative clauses without syntactic or semantic differences.

⁷ In addition to '*nda*, the borrowing from Italian *come* ('how') is used as well, without any distributional difference that we have been able to detect. In the remainder of the paper, we use and test '*nda* only.

⁸ There is an alternation between [t] and [d]; they are probably in free variation.

- (9) Addu'/du'/u'-a cucinite lu timballe Marie?
 where-have.PRES.3SG cook.PTCP the.SG.M timballo.SG.M Marie
 'Where did Marie cook the timballo?'
- (10) **Quand'-**a cucinite lu timballe Marie? when-have.PRES.3SG cook.PTCP the.SG.M timballo.SG.M Marie 'When did Marie cook the timballo?'
- (11) 'Nd-a cucinite lu timballe Marie?

 how-have.PRES.3SG cook.PTCP the.SG.M timballo.SG.M Marie

 'How did Marie cook the timballo?'
- (12) **Quande** pese lu timballe?
 how.much weight.PRES.3SG the.SG.M timballo.SG.M
 'How heavy is the timballo?'
- (13) Pecc'-a cucinite lu timballe Marie?

 why-have.PRES.3SG cook.PTCP the.SG.M timballo.SG.M Marie

 'Why did Marie cook the timballo?'
- (14) [Quande timballe] a cucinite Marie?

 how.much timballo.SG.M have.PRES.3SG cook.PTCP Marie

 'How much timballo did Marie cook?'
- (15) [Quande scrippelle] a fitte Marie?

 how.many scrippelle.PL.F have.PRES.3SG make.PTCP Marie

 'How many crepes did Marie make?'

It is particularly important to consider all the *wh*-expressions in Teramano (and in a language in general) when FRs are investigated. Crosslinguistic investigation clearly shows that varieties of FRs make use of a subset of *wh*-expressions that are attested in interrogative clauses

(Caponigro 2003, 2021). Which *wh*-expressions are used depends on the language and, within the same language, on the kind of FR. Restrictions on *wh*-expressions in different kinds of FRs in the same language is also a strong argument in favor of keeping those different kinds of FRs distinct, rather than trying to reduce them to just one kind.

Like Italian, Teramano does not allow for multiple wh- interrogative clauses, i.e., wh- clauses with more than one wh-expression. Multiple wh- interrogative clauses in Teramano are banned even as echo questions, as shown in (16)a. A sequence of single wh- interrogative clauses is used, instead, as in (16)b.

Embedded *wh*- interrogative clauses look identical to matrix ones, including the obligatory fronting of the *wh*-expression, as shown by the bracketed strings in (17) and (18).

(18) Je ne sacce [quand'-armenute⁹ Nicole].

1SG not know.PRES.1SG when-have.PRES.3SG.came.back.PTCP Nicole

'I don't know when Nicole came back.'

⁹ A common phonological phenomenon in Teramano is apocope: if two /a/ phonemes occur adjacent to one another in the underlying phonological representation, one of them is deleted.

To sum up, matrix and embedded wh- interrogative clauses in Teramano are always introduced by a wh-expression in clause-initial position and cannot contain more one wh-expression, regardless of the position of the wh-expressions. We have presented wh- interrogative clauses and their wh-expressions in Teramano in detail because, in the remainder of the paper, we use them as our baseline for embedded wh- clauses in Teramano and their inventory of wh-expressions.

2.2. Headed relative clauses in Teramano

In this section, we sketch the main features of headed relative clauses in Teramano, focusing on which *wh*-words can act as relativizers. Headed relative clauses will be later compared to FRs in order to highlight similarities and differences.

In Teramano, headed relative clauses always follow their nominal head, are marked by a relativizer in clause-initial position, and lack an argument or an adjunct. The relativizers are of two kinds: the complementizer *che* and a subset of the *wh*-words that are used in *wh*- interrogative clauses. The complementizer *che* is homophonous to the *wh*-word *che* 'what' (cf. (6)). It can introduce embedded declarative clauses like the bracketed one in (19).

(19) Nicole a datte [ch'-a cucinite

Nicole have.PRES.3SG say.PTCP COMP-have.PRES.3SG cook.PTCP

Marie].

Marie

'Nicole said that Marie cooked.'

The complementizer *che* is required in Teramano to introduce headed relative clauses missing a subject or a direct object, as in Italian. It is also needed for the relativization of an indirect object or a prepositional phrase, unlike Italian. The *wh*-word *ce* 'who' is completely unacceptable in these contexts, as shown in (20).¹⁰ In the examples that follow, headed relative clauses are

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¹⁰ Since the declarative complementizer *che* is homophonous with the *wh*-word for 'what', it is hard to distinguish between the two.

represented within brackets with their relativizer (the complementizer or a *wh*-word) in bold, while their nominal head is underlined outside the brackets.

Headed relative clauses missing an indirect object require the complementizer to be followed by the resumptive pronoun—the form -i- in the example in (21).

'The woman from whom they have stolen the car is my cousin.'

The wh-words for 'where,' 'when,' 'how,' and 'why' can all act as relativizers and introduce headed relative clauses, often in alternation with the complementizer che, as shown in (22)-(25).¹²

(i) La settimana che sono in ferie.

the SG.F week SG.F COMP be PRES.1SG in vacation.F Italian

¹¹ Unless otherwise indicated, the complementizer should always be considered obligatory when reported. For more detailed work on complementizers in Abruzzese refer to D'Alessandro and Di Felice (2015) and D'Alessandro and Ledgeway (2010).

¹² Emanuela Sanfelici (p.c.) reminded us of the intriguing semantic contrast Cinque (1982) noticed between adverbial relative clauses introduced by the complementizer *che*, as in (i), and those introduced by P+relative-pronoun/dove 'where'/quando 'when', as in (ii).

- stasse <u>pahase</u> (22) *Je* lu nate a SO be.PRES.1SG the.SG.M 1SG born.PTCP same town.SG.M at [addu'-/du'-/u'-/ch-a nite li giniture where/where/ COMP-have.PRES.3SG born.PTCP the.PL.M parents.PL.M mi]. POSS.1SG a 'I was born in the (same) town where my parents were born.'
- (23) Me ʻllu ne ijte <u>mumende</u> SO а of.it me be.PRES.1SG go.PTCP at that.SG.M moment.SG.M [ch'-/quand'-a arrivite *Marie*]. COMP-/when-have.3SG Marie arrive.PTCP
 - 'I left at the moment when Marie arrived.'
- so^{13} (24) *Lu* fatte lu stasse mode it be.PRES.1SG do.PTCP at the.SG.M same way.SG.M [che/'nda l-i tu^{14}]. fatte COMP/how it-be.PRES.2SG do.PTCP 2SG 'I did it in the (same) way you did it.'

La cui/dove (ii) ferie. settimana in sono in the.SG.F week.SG.F in which/where be.PRES.1SG vacation.F in 'The week I am on vacation.' Italian

¹³ Teramano has a split auxiliary system, as attested in other varieties of Abruzzese (D'Alessandro & Roberts 2010). The term *Abruzzese* includes every linguistic variety spoken in the Abruzzo region.

 $^{^{14}}$ The second person singular nominative pronoun varies freely between the form te and the form tu.

(25) *Lu* fatte sò lu stasse mutive pe it be.PRES.1SG do.PTCP for the.SG.M same reason.SG.M l-i fatte [pecca/che tu]. why/COMP it-be.PRES.2SG do.PTCP 2SG 'I did it for the same reason why you did it.'

The wh-word quande 'how-much', together with the clitic (ni 'of-it') replacing its nominal complement, can introduce a wh- clause modifying the amount component of a preceding nominal like tande farine 'much flour', as shown in (26). The same wh-word quande 'how-much' or the wh-word 'nda 'how' can introduce a wh- clause modifying the preceding adjective stracche 'tired' and act as the modifier of an identical adjective (stracche 'tired') within the wh- clause, as shown in (27). Finally, quande 'how-much' or the wh-word 'nda 'how' can introduce a wh- clause modifying the preceding adverb veloce 'fast', as shown in (28).

- (26) So cumbrate tande farine [quande n-i be.PRES.1SG buy.PTCP as.much flour how.much of.it-have.PRES.2SG cumbrate tu].

 buy.PTCP 2SG

 'I bought as much flour as you did.'
- (27) Marie aè stracche [quande/'nda sò
 Maria be.PRES.3SG tired how.much/how be.PRES.1SG
 stracche je].
 tired 1SG
 'Maria is as tired as I am.'
- (28) Va <u>veloce</u> [quande/'nda vu jì tu].

 go.PRES.3SG fast how.much/how want.PRES.2SG go.INF 2SG

 'Go as fast as you want to go.'

The examples in (26)–(28) resemble comparative constructions in terms of their meaning and some of their morphosyntactic features. We will not investigate this connection further, since our paper focuses on FRs, rather than headed relative clauses or comparative clauses. The question marks in the column for 'how much/many' in Table 2 are meant to signal that this is an open issue.¹⁵

Finally, the complex *wh*-expression for 'what'/'which' + N cannot introduce headed relative clauses, as shown in (29).

Table 2 summarizes our findings about the occurrence of *wh*-expressions in headed relative clauses in Teramano (we label the Teramano *wh*-expressions with their English translations in Table 2 and the subsequent tables).

Table 2 Distribution of *wh*-expressions in headed relative clauses in Teramano

Who	What	Where	When	How	Why	What+N	How much/	
						/Which+N	How many	
							+N	+Adj
×	*	✓	✓	✓	√	*	?	?

In conclusion, headed relative clauses in Teramano can always be introduced by the declarative complementizer *che*. They allow for the complementizer to be replaced with a *wh*-expression only when the relativized constituent is different from the subject, the direct object, or the indirect object. The *wh*-expressions that can be used in (clear cases of) headed relative clauses

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¹⁵ But see Pancheva Izvorski (2000: Ch. 3) for an analysis of comparative clauses as headless relative clauses.

are the *wh*-words for 'where', 'when', 'how', and 'why'. This contrasts with Italian, which makes use of just one *wh*-expression in headed relative clauses: the *wh*-word for 'where.'

3. Free Relative Clauses

In this section, we describe the construction at the center of our investigation: FRs in Teramano. Three main kind of FRs are attested crosslinguistically (Caponigro 2003, 2021): (i) *Maximal* FRs, (ii) *Existential* FRs, and (iii) *Free Choice* FRs. We discuss the first two kinds in §3.1 and 3.2, respectively. In §3.3, we briefly touch on the third kind to argue that Free Choice FRs are not a genuine and productive construction in Teramano, but the result of contact with Italian.

3.1.Maximal Free Relative Clauses in Teramano

Maximal FRs are FRs that can be paraphrased with a definite DP (including a complex definite DP whose nominal complement acts as the head of a headed relative clause). Like definite DPs, Maximal FRs exhibit two main semantic properties: referentiality and maximality. Let us explain both by looking at a concrete example. The bracketed string in (30)a is Maximal FR introduced by the *wh*-word *ce* 'who'. It can be replaced and paraphrased with the bracketed definite DP in (30)b.

As with the definite DP, the Maximal FR also refers to those people the addressee does not like—the only difference being that the Maximal FR is unspecified for number. So (30)a would be appropriate both in a situation in which there is only one person the addressee does not like and

in a situation in which there are many people the addressee does not like. On the other hand, the collective noun *gente* 'people' in the definite DP in (30)b is felicitous only in a situation in which there is more than one person that the addressee does not like.

Besides being referential, Maximal FRs also exhibit maximality, which explains their label. In a situation in which the addressee does not like five people, the speaker can felicitously utter (30)a if she does not like all five people the addressee does not like. If the speaker does not like only two of them, then she cannot utter (30)a truly and/or felicitously. In other words, the Maximal FRs in (30)a can only refer to the maximal individual that has the property of not being liked by the addressee—the (unique) plural individual resulting from the sum of all five atomic individuals that the addressee does not like. Notice that the same property holds for the definite DP in (30)b. In fact, the seminal semantic analysis of Maximal FRs developed in Jacobson (1995) and Dayal (1996) builds on Link's (1983) analysis of definite DPs, which was based on the notion of the maximal individual of a set as the reference of a definite DP.

The following examples show other Maximal FRs in Teramano that are introduced by the *wh*-word for 'who' or other *wh*-expressions, with FRs in brackets and *wh*-expressions in bold.

(31) WHO

- b. Tilifene [a ci tilifene tu].
 - call.PRES.1SG to who call.PRES.3SG 2SG

^{&#}x27;I will [phone]call {the one}/{those} who you will [phone]call.'

(32) Where

a. Je so nate [addu'-/du'-/u'-a nite

1SG be.PRES.1SG born.PTCP where/where-have.PRES.3SG born.PTCP

li ginitur-a mi].

the.PL.M parent.PL.M-a POSS.1SG

'I was born where my parents were born.'

b. Sò rijete [addu'-/du'-/a' ci'-avame

be.PRES.1SG gone.back.PTCP where/where-a REFL-have.PRES.1PL

spusite].

marry.PTCP

'I went where we got married.'

(33) WHEN

a. Me ne sò jite [quand'-a arrivite

REFL of.it be.PRES.1SG go.PTCP when-have.PRES.3SG arrive.PTCP

Marie].

Marie

'I left when Marie arrived.'

b. Vaje a la feste [quande Anne

go.PRES.1SG to the.SG.F party.SG.F when Anne

armore li cannale].

turn.off.PRES.3SG the.PL.F candle.PL.F

'I am going to the party when Anne blows the candles.'

(34) How

l-i a. Lu sò ['nda fatte fatte tu]. it be.PRES.1SG do.PTCP how it-be.PRES.2SG do.PTCP 2SG 'I did it how you did it.' b. Sò ['nda faciave cucinite lu suche be.PRES.1SG cook.PTCP the.SG.M sauce.SG.M how do.PAST.3SG nonne]. grandma.SG.F

'I cooked the sauce how my grandma did it.'

(35) How-much

Sò fatijte [quande hi fatijte tu].
be.PRES.1SG work.PTCP how.much be.PRES.2SG work.PTCP 2SG
'I worked as much as you did.'

(36) Why

Lu $s\grave{o}$ fatte [pecca l-i fatte tu]. it be.PRES.1SG do.PTCP why it-be.PRES.2SG do.PTCP 2SG 'I did it for the same reason why you did it.' ¹⁶

However, it is not possible for Maximal FRs in Teramano to be introduced by the *wh*-word for 'what,' as shown in (37)a. The demonstrative followed by the complementizer needs to be used, instead, as shown in (37)b. Such a construction is common among the Italian languages (Munaro 2000). It is a kind of light-headed relative clause that is discussed in detail in Mantenuto & Caponigro (2020).

¹⁶ This example also admits a different "non-FR" reading which could be paraphrased as 'I did it because you did it' or 'I did it and the reason was that you did it.'

(37) WHAT

a. *Je magne [che sti cucinì]. 1SG eat.PRES.1SG what stay.PRES.2SG cook.PROGR b. *Je* magne [qualle che sti cucinì]. 1SG eat.PRES.1SG that.SG.M COMP stay.PRES.2SG cook.PROGR 'I'll eat what you are cooking.'

Maximal FRs cannot be introduced by the complex *wh*-phrase 'which/what' + N either.

(38) What/Which + N

*Me piace [che vine piace a ta].
to.me like.PRES.3SG what/which wine.SG.M like.PRES.3SG to you
('I like what/which wine you like.')

On the other hand, Teramano does not enforce an absolute ban on Maximal FRs introduced by complex *wh*-phrases. Simple and complex *wh*-phrases like 'how-much' or 'how-much' + N can productively introduce Maximal FRs (39), while those of the kind 'how-much'+ Adj/Adv are degraded (40), especially in comparison with the corresponding simple *wh*-word version like the one that was shown in (35).

(39) How- μ How

 $S\grave{o}$ bevute [quande vine hi bevute] be.PRES.1SG drink.PTCP how.much wine.SG.M be.PRES.2SG drink.PTCP tu].

'I drank as much wine as you did.'

(40) How-Much + Adj

Va [*quande/*'nda veloce vu ji tu]. go.PRES.3SG how.much/how fast want.PRES.2SG go.INF 2SG 'Go as fast as you want.'

Table 3 summarizes our findings about Maximal FRs in Teramano and the *wh*-expressions that can introduce them.

Table 3 Distribution of *wh*-expressions in Maximal FRs in Teramano

Who	What	Where	When	How	How much	Why	What+N/	How much/	
							Which+N	How many	
								+N	+Adj
√	*	✓	✓	√	✓	√	×	✓	*

If we compare Teramano with Italian, we notice some interesting similarities and differences. Neither language allows for Maximal FRs introduced by the *wh*-word for 'what' or the *wh*-phrase 'what/which' + N. Maximal FRs introduced by the *wh*-phrases 'how-much/many' + N, instead, are acceptable in both Teramano and in Italian, as shown below by the Italian counterpart of the Teramano example in (39).

Italian

On the other hand, Maximal FRs introduced by the wh-word for 'why' are completely impossible in Italian (only the non-FR reading we mentioned in fn. 16 is available), while they are fully acceptable in Teramano. This is a true contrast that highlights an intriguing difference in Maximal FRs between wh-words that behave identically in interrogative clauses. Whatever the process is that is responsible for allowing wh-expressions in a language to also be used in non-interrogative clauses like FRs (see Caponigro & Fălăus 2018 for some speculation), it must also apply to each wh-expression individually rather than to the whole class of wh-expressions in a language, given the fact that not all wh-expressions in wh- interrogative clauses are attested in FRs and the gaps vary from the language to language. Teramano provides further support to this crosslinguistic conclusion. The wh-word for 'why' has extended to FRs in Teramano, while it has not in Italian. Across Romance languages (and not only), the Italian pattern is the most common

^{&#}x27;I drank as much wine as you did.'

one. Still, Romanian, among Romance languages, and several Mesoamerican languages exhibit the same pattern as Teramano and allow for 'why' to introduce Maximal FRs (see Caponigro & Fălăus 2018, Caponigro 2021, Caponigro et al. 2021).

Lastly, Maximal FRs in Teramano exhibit the so called "categorial matching effects": the wh-phrase introducing a Maximal FR has to satisfy both the syntactic requirements the FR imposes on its missing constituent (its wh-trace) and those the matrix clause imposes on the whole Maximal FR. . ¹⁷ For instance, example (31)a above showed a Maximal FR with a missing DP subject that occurs in the object position of a matrix predicate selecting for a DP object. The wh- DP chi 'who' then satisfies ('matches') both the DP requirement for the subject of its own clause and the DP requirement for the object of the matrix clause. Example (31)b, instead, showed a Maximal FR and a matrix clause that make use of the same predicate—a predicate that selects for a PP complement with P a 'to'. The PP complement is missing in the Maximal FR and is realized by the whole Maximal FR in the matrix clause. The wh- PP introducing the Maximal FR a chi ('to who') is the right kind of PP to satisfy the PP complement requirements of both clauses. If such double satisfaction ('matching') is violated, the resulting sentence is unacceptable. This is shown in (42). The predicate of the bracketed Maximal FR, the same as in (31)b, selects for a PP complement, which is missing. The matrix predicate selects for a DP complement. The wh- PP a chi ('to who') satisfies the PP requirements of the missing constituent in its own clause but doesn't satisfy the DP requirements of the matrix clause. The overall sentence is judged degraded.

As we'll see in the next section, the other kind of FR that we have found in Teramano does not exhibit categorial matching effects, which is also the attested crosslinguistic pattern.

50

1

¹⁷ See van Riemsdijk (2017) and references therein for a thorough discussion of matching effects in FRs.

3.2. Existential Free Relative Clauses in Teramano

Existential FRs are FRs that only occur as the complement of existential predicates/constructions and can be paraphrased with an indefinite NP. One common semantic approach to Existential FRs assumes that they denote a set of individuals over which the matrix predicate existentially quantifies, ensuring that the set not be empty (see Caponigro 2003, 2004, Šimík 2011, 2020, and the references therein).

Teramano has two main kinds of existential constructions. One is roughly equivalent to English *there is/are* and is formed by the locative *ce* 'there' and the verb *sta* 'to stay'. The other is formed with the verb *tenè* 'to hold' and is close to the construction with existential *have* in English. Affirmative and negative sentences do not differ in this function. With the exception of the *wh*-words for 'who', 'what', and 'where', no other *wh*-expression is able to introduce Existential FRs in Teramano, as shown in (43)–(52) below. This is the same pattern that is observed in Italian, including an intriguing restriction for the *wh*-word for 'what': it has to occur as the complement of a preposition, as shown by the contrast between (43)a and (43)b–d.

```
(43) WHAT
                                  [che
     a. *Ce
                                         isce
                                                                magnà].
                   sta
                                                рò
        there
                   stay.PRES.3SG what
                                         3PL
                                                can.PRES.3PL
                                                               eat.INF
        Intended: 'There's something they can eat.'
     b. Nicole
                   tè
                                  [de
                                         che
                                                magnà].
        Nicola
                   have.PRES.3SG of
                                         what
                                                eat.INF
        'Nicola has something to eat.' (Lit. 'Nicola has what to eat.')
     c. Nen
                   tè.
                                  [de
                                         che
                                                magnà].
                   have.PRES.3PL of
                                         what
                                                eat.INF
        not
        'They don't have anything to eat.' (Lit. 'They don't have what to eat.')
     d. Nen
                   tinge
                                  ['nghe
                                                fà
                                                        da
                                                                magnà].
                   have.PRES.1SG with.what
                                                 do.INF of
        not
                                                                eat.INF
        'I don't have anything to cook with.' (Lit. 'I don't have with what to cook.')
```

(44) Who

a. Nen tinghe ['nghe ce parlà quande sò not have.PRES.1SG with who talk.INF when be.PRES.1SG triste].

sad

'I don't have anyone with whom to talk when I am sad.'

- b. Ce sta [ce dice simbre de sci].

 there stay.PRES.3SG who say.PRES.3SG always of yes

 'There is always someone who says yes.'
- c. Ce sta $\lceil ce \rceil$ m'-aguarde li there to.me-look.after.INF the.PL.M stay.PRES.3SG who frichene quande 'n-ce stinghe]. child.PL.M when not-there stay.PRES.1SG

(45) Where

- a. Nen tinghe [addu'-/du'-/u'-a ji].

 not have.PRES.1SG where-a go.INF
 'I don't have anywhere to go.'
- b. Ce sta [addu'-/du'-/u'-a ji].

 there stay.PRES.3SG where-a go.INF

 'There is somewhere to go.'

(46) When

- a. *Nen tenave [quande jir-le a truvà].

 not had.PAST.3SG when go.INF-him to visit.INF

 Intended: 'Non c'era/ non avevo quando andarlo a trovare.'
- b. *Nicole nen tè [quande legge].

 Nicola not have.PRES.3SG when read.INF

 Intended: 'Nicola does not have time to read.'

^{&#}x27;There is someone who takes care of the children when I am not home.'

(47) How

*Nicole nen tenave ['nda fa lu timballe].

Nicola not had.PAST.3SG how do.INF the.SG.M timballo.SG.M

Intended: 'Nicola doesn't have a way to make the timballo.'

(48) How-much

*Nicole nen tenave [quande fa].

Nicola not had.PAST.3SG how do.INF
Intended: 'Nicola doesn't have an amount to make.'

(49) Why

*Nicole nen tè [pecca fa lu timballe].

Nicola not have.PRES.3SG why do.INF the.SG.M timballo.SG.M

Intended: 'Nicola doesn't have a reason to make timballo.'

(50) WHAT/WHICH + N

*Nicole nen tè [che cane 'nghe
Nicole not have.PRES.3SG what dog.SG.M with.what
pazzià].
play.INF

Intended: 'Nicole doesn't have a dog that plays with him.'

(51) How-much/many + N

a. *Nicole nen tè [quande timballe magnà].

Nicole not have.PRES.3SG how.much timballo.SG.M eat.INF

Intended: 'Nicole doesn't have an amount of timballo to eat.'

b. *Nicole nen tè [quande libbre legge].

Nicole not have.PRES.3SG how.many book.PL.M read.INF

Intended: 'Nicole doesn't have an amount of books to read.'

(52) How Much + Adj

*Nen tenghe [quand-a pesande fa lu have.PRES.3SG how.much-a heavy do.INF the.SG.M pacchette].

package.SG.M

Intended: 'I don't have an amount of heaviness for the package.'

×

×

Our findings about Existential FRs in Teramano are summarized in Table 4.

What Who Where When How How Why What/Which How +Nmuch/many much +N+Adi ✓ ✓

×

×

×

×

Table 4 Distribution of *wh*-expressions in Existential FRs in Teramano

×

It has been observed that Existential FRs across languages—at least those that have been studied so far—show a preference for infinitive or subjunctive marking on their predicates (see Grosu 2004, Šimík 2011 a.o.). Teramano requires the infinitive form in Existential FRs like in (43)-(45) above, but it requires the indicative present or past in Existential FRs like (53) and (54), respectively (see Caponigro et al. 2021 for other languages whose Existential FRs are not restricted to infinitive or other irrealis forms).

(53) *Ce* sta $\lceil ce \rceil$ SO cunuscete la there stay.PRES.3SG who the.SG.F be.PRES.1SG meet.PTCP at *feste*]. party.SG.F 'There are people who I met at the party.'

m'-aguardave li (54) Ce stave [ce to.me-look.after.PAST.3SG there stay.PAST.3SG who the.PL.M frichene quande da iave mamme]. child.PL.M when go.PAST.1SG from mom.sg.F 'There was someone who would look after the kids for me when I was at my mom's.'

Lastly, Existential FRs do not exhibit categorial matching effects, unlike Maximal FRs. The matrix existential predicates in the examples above usually select for a DP/NP in their complement position. Nevertheless, the Existential FR that occurs in their complement position can be introduced by any kind of *wh*- phrase: a *wh*- DP (e.g., (44)b–d, (53), (54)) or *wh*- PPs with different P heads (e.g., (43)b–d, (44)a). This pattern within Existential FRs and the contrast with Maximal FRs is attested across language (Šimík 2011, 2020).

3.3. Lack of true Free Choice Free Relative Clauses in Teramano

The third kind of FR that is attested across languages is Free Choice FR. In this section, we argue that Teramano lacks them, despite some evidence to the contrary. Free Choice FRs across languages exhibit both morphosyntactic and meaning peculiarities. Morphosyntactically, they are characterized by "free choice" markers occurring as morphemes on *wh*-expressions or as independent words (next to or near *wh*-expressions). For instance, the bracketed FR in (55) from Italian is introduced by the *wh*-word *chi* 'who' with the free choice (FC) suffix *-unque*. Example (56) shows a similar pattern in English.

(55) *Paolo* parlando [chi-unque starà con gli Paolo stay.FUT.3SG talk.PROGR who-FC with he.DAT dia retta]. give.SUBJ.PRES.SG attention 'Paolo is likely to be talking to anybody who pays attention to him.' Italian

55

¹⁸ See Šimík (2018) for an overview and relevant references.

IGNORANCE INFERENCE: The speaker doesn't know which specific people Paolo is talking to.

(56) Paul ate [what-ever he found in the fridge]. It just happened to be a piece of parmesan cheese.

INDIFFERENCE INFERENCE: Paul ate what he found in the fridge and didn't care that it was a piece of parmesan cheese.

At the semantic/pragmatic level, Free Choice FRs trigger "free choice" inferences of two main kinds: "ignorance" inferences, signaling that the speaker (or some other salient epistemic agent) does not know the identity of the objects sharing the property conveyed by the Free Choice FR, as shown in (55), or "indifference" inferences, signaling that the speaker (or some other salient epistemic agent) does not care about the identity of those objects, as shown in (56).

Free Choice FRs in a given language may trigger only one of the inferences above. For instance, Caponigro & Fălăuş (2018) show that Free Choice FRs in Italian and Romanian pattern like DPs introduced by the free choice determiner *any* in English (see translation of (55) above) in licensing only an ignorance reading. As free choice any DPs show in English, ignorance inferences can be triggered by constructions other than Free Choice FRs. Also, a language does not need to have a specialized FR or non-FR construction to trigger free choice inferences. Regular Maximal FRs like what he found in the fridge, definite DPs like the people who pay attention to him, or quantified DPs like all the people that pay attention to him can be used in contexts in which it is clear that the speaker (or some other salient epistemic agent) does not know (or care about) what is in the fridge or who those people are. The crucial difference between the constructions that are morphosyntactically marked as free choice and those that are not, is that the former but not the latter, obligatorily trigger free choice inferences whenever they occur, imposing stronger pragmatic constraints on their conditions of use. Like other Upper Southern Italian varieties (Silvestri 2019), Teramano does not have any true free choice whexpressions. Cual-siase 'which-FC' would be the only candidate, but there are at least a couple of strong reasons to believe that it is a borrowing from Italian qualsiasi. First of all, native speakers are reluctant to produce sentences with *cualsiase* and strongly prefer to use a quantified DP of the kind '(all) the NP' or 'the same NP', as shown in (57)a vs. b and (58)a vs. b.

```
(57) a. Je
                                          addurmì
                                                                [cualsiase
                                                         in
                                                                               parte
                   me
                          posse
                                         fall.asleep.INF in
                                                                which+FC
        1SG
                   REFL
                           can.PRES.1SG
                                                                               part.SG.F
       (che)
                                                 lette].
                   ce
                                          nu
       COMP
                   there
                          stay.PRES.3SG a.SG.M bed.SG.M
       'I can sleep in any place with a bed.'
     b. Je
                                          addurmì
                                                                [tutte
                                                                               li
                   me
                          posse
                                                         in
                                        fall.asleep.INF in
                                                                all.PL.M
        1SG
                   REFL
                          can.PRES.1SG
                                                                               the.PL.M
        parte
                   che/addu'-/du'-/u'-a ce
                                                 sta
                                                                nu
                                                                        lette].
        part.PL.M COMP/where-a
                                          there
                                                 stay.PRES.3SG a.SG.M bed.SG.M
        'I can sleep in all places with a bed.'
```

Second, the Teramano word for 'which' is *che*, while the *wh*-component of *cualsiase* is *cual*, which is not even a *wh*-word in Teramano (*cua/cuale* is acceptable only as a borrowing from Italian).

'I'll watch the same movies that you watch.'

In conclusion, there is no evidence that Teramano has Free Choice FRs. This has at least two broader consequences. It shows a further difference between Teramano and Italian as far as their systems of FRs are concerned. It also argues for a careful study of each kind of FR in each language, since it cannot be taken for granted that the presence of one kind in one language automatically implies the presence of all the other kinds of FRs in the very same language.

4. Conclusion

We have shown that Teramano exhibits a productive pattern of FRs—embedded clauses that syntactically and semantically act like DPs, PPs, AdjPs, or AdvPs, rather than like nominal modifiers (as headed relative clauses do) or argument or adjunct clauses conveying propositional content. Two of the three most common kinds of FRs across languages are attested in Teramano as well. Like Italian, Teramano has Maximal FRs and Existential FRs; unlike Italian, Teramano lacks Free Choice FRs.

We have provided evidence showing that neither kind of FR in Teramano can be reduced to some form of headed relative clause with a silent nominal head, nor can one kind be reduced to the others. In particular, we have shown that Maximal FRs and Existential FRs exhibit the distributional and interpretative properties that we have discussed in §3.1 and §3.2. These properties are different between the two kinds of FRs and also different from the distribution and the interpretation of headed relative clauses, which occur and are interpreted as modifiers of a nominal head. Additionally, we have shown that Maximal FRs exhibit categorial matching effects, while Existential FRs do not. Finally, Maximal FRs, Existential FRs, and headed relative clauses are introduced by different subsets of the set of wh-expressions, introducing wh- interrogative clauses, as summarized in Table 5.

Table 5 Distribution of *wh*-expressions in Maximal FRs (Max-FR), Existential FRs (Ex-FR), and headed relative clauses (HeadedR) in Teramano

	Who	What	Where	When	How	How	Why	What/	How much/	
						much		Which	many	
								+N		
									+N	+Adj
Max-FR	√	*	√	√	✓	✓	√	*	√	×
Ex-FR	✓	√	√	×	×	×	*	*	×	×
HeadedR	*	*	√	✓	√	√	√	×	?	?

Only the *wh*-word for 'where' can introduce all three constructions and only the *wh*-expression 'what/which'+N cannot introduce any. The *wh*-word for 'who' can introduce both kinds of FRs, but no headed relative clauses. On the other hand, the *wh*-word for 'what' can only introduce Existential FRs. *Wh*-expressions of the kind 'how much/many' can never introduce Existential FRs. They can introduce a Maximal FR when combining with a nominal complement. They can also introduce headed relative clauses when combining with an adjectival complement. Only Maximal FRs and headed relative clauses can be introduced by the *wh*-word for 'why' in Teramano, which is not possible in Italian, is a rare option in Romance, and seems to be less common crosslinguistically (see data in Caponigro 2003, 2021, Šimík 2011).

If Maximal FRs or Existential FRs were kind of headed relative clauses with a silent nominal head, all these differences with each other and with headed relative clauses would be surprising and would require some ad hoc assumption on the nature and the properties of this silent head in either kind of FR.

This articulated distributional pattern of *wh*-expressions in non-interrogative clauses in Teramano further supports the need to investigate and test each *wh*-expression when studying FRs (or non-interrogative *wh*- clauses in general) in a language and across languages, since languages that are clearly related and in close contact like Teramano and Italian can exhibit differences in the subset of *wh*-expressions that are allowed to introduce FRs. We hope that our study encourages

others to pursue a similar investigation in Teramano and across other Italian languages by providing a detailed case study, a thorough methodology, useful tools, and crosslinguistic and typological patterns and motivations.

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