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Free relatives free from silent operators

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Abstract. Free relatives have long posed challenges for theories of the syntax-semantics interface: although clausal in form, they have the same distribution and interpretation as definite noun phrases. In this paper, I present a typologically novel class of free relatives from Old Avestan: those introduced by non-interrogative-based pronouns, contrasting with the standard definition which assumes an interrogative-based pronoun as the relativizer (Caponigro 2003). I also propose a new analysis of free relatives at the syntax-semantics interface that, based on the unique properties of the Old Avestan data, minimizes the need for silent operators to derive the definite reading of free relatives.

Keywords. free relatives, syntax-semantics interface, Old Avestan, relativization

1. Introduction. Free relatives are relative clauses without an external head, which despite their clausal nature can appear in argument position with the truth conditions of a definite description.[1] These properties of free relatives have long posed puzzles for theories of the syntax and the syntax-semantics interface. The puzzle at the syntax-semantics interface is as follows: how can a clause appear in argument position with a definite reading?[2] In other words, what is the mechanism that allows a clause of the type $\langle e, t\rangle$ to have an e type interpretation? Approaches to this question in the literature on the semantics of free relatives differ in two main aspects: **1.** what they assume as the source of definiteness, and **2.** how they resolve the type mismatch. However, the literature has been, for long, concerned with free relatives that are fully headless. Nonetheless, recent work on free relative has shown that in some languages, a free relative can be introduced by a *wh*-phrase: essentially, the noun modified by the relative clause appears inside the clause itself. The semantic consequences of this empirical observation remain to be fully explored.

This paper presents new data from Old Avestan and proposes a novel analysis of free relatives, motivated by two key empirical observations: the unrestricted use of an internal nominal head and the semantics of the relative pronoun. In doing so, the paper extends the typology of free relatives to include non-interrogative-based constructions. In §2, I review two major accounts of free relatives at the syntax-semantics interface. In §3, I introduce the Old Avestan data and argue that, despite lacking an interrogative-based relative pronoun, these non-externally-headed clauses fall within the cross-linguistic category of free relatives. Finally, in §4, I propose

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1. In some languages, free relatives as arguments of existential predicates have an indefinite reading, see Caponigro (2001).

2. Free relatives can also have a universal reading. Ambiguity accounts of free relatives, for instance in Bach & Cooper (1978), have been extensively discussed and refuted in Caponigro (2003), ch. 2.5.1 (among others). Currently, the standard account is that the availability of a universal reading follows from the assumption that definiteness is obtained via maximalization, following Link (1983). For more discussion, see Šimík (2020). In this paper, I will follow the current literature in assuming that definiteness is the primary reading of free relatives.

a theoretical account that captures the semantics of free relatives with minimal resort to silent operators, and I provide supporting evidence from an unrelated language, Georgian, which confirms the predictions of the analysis.

2. Previous account of free relatives. There are two major accounts of the semantics of free relatives that aim to resolve the puzzles of type mismatch and the source of definiteness: those of Jacobson (1995) and Caponigro (2003). These accounts showcase two main approaches to the question of the source of definiteness: definiteness from the relative pronoun, or definiteness from type shifting.

In the most influential work on the semantics of free relatives, Jacobson (1995) highlights the similarities between them and *wh*-questions in English. As the semantics of questions also involves the notion of exhaustivity, Jacobson builds the notion of maximality into the semantics of the *wh*-words. For her, *wh*-words are functions from a set to the subset containing the maximal plural entity of the set, having the denotation in (1) where "$\leq$" is the inclusion notation.

(1) $[\![wh]\!] : \lambda P \lambda x[P(x) \wedge \forall y(P(y) \rightarrow y \leq x)]$

- x and y are variables over atomic and plural members of the set (and the null set).

This account unifies questions and free relatives. In free relatives, following the COMP analysis (Groos & van Riemsdijk 1981), the *wh*-word combines with the rest of the relative clause which denotes a set. The result would therefore be the set containing the maximal plural entity that the relative clause refers to. However, this is still a set, having an $\langle e, t\rangle$ type. Yet, it is guaranteed to be a singleton, as there exists only one maximal entity. Therefore, Jacobson suggests, it is ready to shift into an e type meaning, denoting the single individual characterized by the predicate. Now, the iota type-shifting rule (Partee 1987) comes into play and shifts the type to e. For instance, the free relative in (2) would have the following analysis before (3a) and after (3b) iota type-shifting:

(2) I recommend what Amir read.

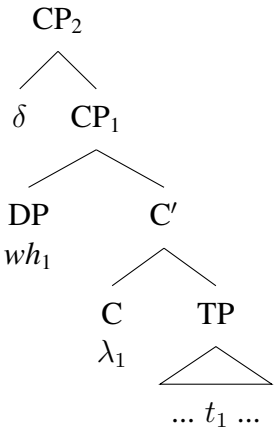
(3) a. $[\![what\ Amir\ read]\!] : \lambda x[Read(Amir)(x) \wedge \forall y(Read(Amir)(y) \rightarrow y \leq x)]$

b. $[\![what\ Amir\ read]\!] : \iota x[Read(Amir)(x) \wedge \forall y(Read(Amir)(y) \rightarrow y \leq x)]$

The other seminal work on the semantics of free relatives is Caponigro (2003). Caponigro defines free relatives as necessarily containing an interrogative pronoun (a *wh*-word or phrase) – this is crucial to his analysis, as he ultimately aims to give a unified account of interrogative pronouns. For Caponigro, maximalization is a strategy to remedy the type mismatch. Among possible operations that can close an open formula and shift the $\langle e, t\rangle$ type to e, quantification is unavailable because Caponigro assumes that only overt lexical items can trigger quantification. The best possible strategy is therefore maximalization, because little information is lost in going from a set to its maximal entity, by definition. However, in this approach, maximalization does not originate from the relative pronoun (contra Jacobson), but is triggered by a covert lexical

element δ containing Link's (1983) σ operator, which returns the maximal individual of a set.[3] Caponigro proposes the following LF for free relatives:

(4)



Caponigro assumes that at the CP_1 level, the complementizer C of a *wh*-clause (λ) inherits the same index as the *wh*-word in its SPEC (he hypothesizes that this happens by SPEC-Head agreement), and triggers λ-abstraction over the co-indexed free variable. Crucially, in this analysis, the *wh*-word only acts as the restrictor of the set that the relative clause at the C′ level denotes. The semantics that Caponigro suggest for the *wh*-word is (5).

(5) $[\![wh_1]\!] : \lambda X \lambda x_1.[\pm\text{animate}'(x_1) \wedge {}^*X(x_1)]$

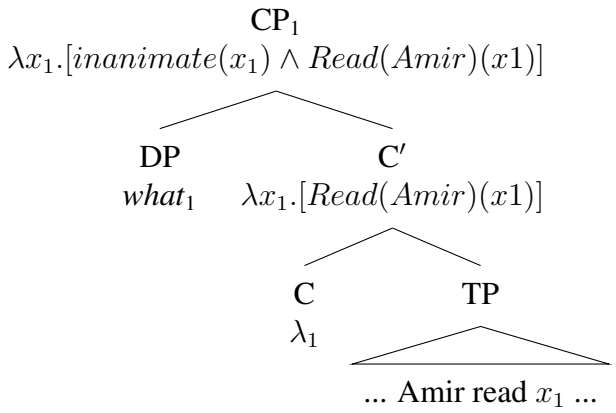
- * is an operator that applies to a singular one-place predicate (denoting a set of atomic entities), and turns it into a plural predicate denoting a set containing both atomic and plural entities.

The *wh*-word is, in other words, a function from a set of entities to a subset of it. Therefore, if at the C′ level the free relative in (2) is "Amir read x_1" and interpreted as the set of all things that Amir liked, the CP "what Amir read x_1" denotes the inanimate things Amir read, because *what* is a form only used for inanimate entities.[4]

3. Caponigro (2003) proposes that there are two conditions for licensing δ: 1. the existence of a maximal plural entity, and 2. that lexical blocking cannot apply. The second condition prevents the δ from combining with bare count nouns, as in these cases there is an overt lexical element, namely *the*, that can occur instead.

4. This also means that the atomic entities will now be sortally homogeneous, which is a requirement for maximalization to happen (a maximal entity can only be picked out once a set actually denotes a maximal entity, which is not possible if the set is not sortally homogeneous).

(6)

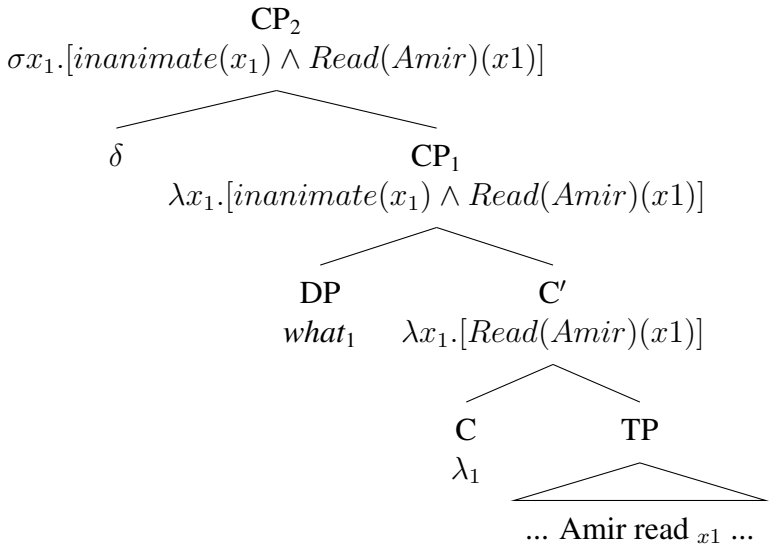


Now, the δ adjunct in CP_2 is responsible for this type-shifting. δ combines with a set-denoting XP to return the maximal individual of the set denoted by XP:

(7) $\delta \rightsquigarrow \lambda X \sigma x[X(x)]$

The δ ultimately amounts to the definite determiner (the difference being that ι applies to a set with either atomic or plural entities, but δ can apply to a set containing both). The resulting structure, as seen in (8) would therefore have a type e semantics, and the mismatch is resolved.

(8)



These two major theories of the semantics of free relatives showcase how theories vary in what they assume to be the source of definiteness, and what resolves the type mismatch. For Jacobson (1995), the source of definiteness is the inherently maximalizing *wh*-word, and type mismatch is resolved via the type-shifter iota (as a result of maximalization). In other words, type-shifting occurs as a result of maximalization. On the other hand, Caponigro (2003) assumes that the source of definiteness is in fact a covert δ, which itself manifests to resolve the type-mismatch. For type-mismatch to be resolved, a covert maximalizer δ changes the type of the free

relative, resulting in definiteness. Therefore, maximalization and definiteness take place as a result of type-shifting.

3. Old Avestan free relatives. Old Avestan is an ancient Iranian language, which is the language of the most ancient parts of the Zoroastrian sacred textual corpus, the Avesta (circa 1500-500 BC). It is a highly inflectional, highly scrambling language. The relative pronoun in Old Avestan is from the stem *ya-*, which is distinct from the interrogative pronoun *ka-*. The relative pronoun *ya-* receives case from the predicate of the relative clause according to the gap within the relative clause. The main relativization strategy in Old Avestan is externally-headed postnominal relative clauses (similar to English relative clauses):[5]

(9) yazamaidē ahurəm$_i$ mazdąm yə̄$_i$ gąm dāṯ̰
praise.PRES.1PL Ahura.ACC wise.ACC REL.NOM cow.ACC create.AOR.3SG

'We praise the wise Ahura, who created the cow.' (Y 37.1)

Old Avestan also has free relatives, both in argument position and left-dislocated with resumption. Starting with the former, Old Avestan free relatives can be headless. One example is given in (10), where the free relative is the coordinated subject of the main clause.

(10) varatā ... aṣ̌əm mainiiuš spəništō, ... [**yaē=cā**
choose.AOR.3SG ... truth.ACC spirit.NOM most prosperous.NOM ... REL.NOM=CONJ
xšnaošən ahurəm]
satisfy.AOR.3PL Ahura.ACC

'The most prosperous spirit chooses truth... also those who satisfy the Ahura (choose the truth).' (Y 30.5)

A free relative in Old Avestan can also contain a nominal head. The nominal head in these cases is always a bare N.[6]

(11) xšaiiā=cā [**yā** və̄ **mąθrā** srəuuīmā rādå̊]
rule.IMPER.2SG=CONJ REL.INST you.GEN formula.INST hear.AOR.1PL bounty.ACC

'And rule with the formula with which we might hear (of) your bounties.' (Y 28.7)

A free relative in Old Avestan can also appear in a correlative construction, where it is left-dislocated and resumed via a pronoun.[7]

5. In the examples, "Y" stands for Yasna, the name of the part of the Zoroastrian sacred corpus composed in Old Avestan. All examples are based on Humbach (1991).
6. It is commonly assumed that free relatives do not contain an overt head, either externally or internally. Yet recent findings (Caponigro 2019, 2023) indicate that in some languages, free relatives may begin with a *wh*-phrase – as opposed to a single *wh*-word– where the *wh*-word is followed by a nominal. In such cases, the relative clause essentially modifies that nominal. I call this nominal the *head* in this paper.
7. As discussed in Dashti (2022), in correlative constructions in Old Avestan, the free relatives are hanging topics and the resumptive pronoun is a type of discourse anaphora. This does not have any bearing on the internal structure of free relatives, which is at issue here.

(12) [[**yə̄** aṣ̌āunē vahištō] ... **[huuō** aṣ̌ahiiā aŋhaṯ vāstrē]]
REL.NOM truthful.DAT best.NOM ... DEM.NOM truth.GEN be.SBJV.3SG pasture.LOC

'He who is best to the truthful ... that one will be in the pasture of truth.' (Y 33.3)

(13) [[**yā** və̄ ... ahurō mazdå **nāmąm** dadāṯ] ... [**tāiš**
REL.ACC you.DAT ... Ahura.NOM wise.NOM name.ACC give.PRES.3SG ... DEM.INST
vå yazamaidē]]
you.DAT praise.PRES.1PL

'The names which wise Ahura ... gave you ... we praise you with them.' (Y 38.4)

3.1. A TYPOLOGICAL PERSPECTIVE. Free relatives cross-linguistically are almost always defined as containing a morphologically interrogative pronoun as their relative marker (Caponigro 2003:10, Šimík 2020:2). Old Avestan free relatives deviate from this generalization: the relative pronoun is completely different from the interrogative one (*ya-* pronouns vs. *ka-* pronouns). This is not limited to Old Avestan: Sanskrit (Lowe et al. forthcoming), Old Persian, and Classical Greek (Probert 2015) also have free relatives introduced by a non-interrogative relative pronoun.

This issue raises the question of whether such constructions in these languages should be considered genuine free relatives of the same typological category as interrogative-based free relatives. Alternatively, they may belong to a different cross-linguistic category of non-externally-headed relative clauses – one to which the Old Avestan data bears a striking resemblance. This category is **super-free relatives**, a type of headless relative clauses found mostly in Mesoamerican languages (Caponigro 2021). Super-free relatives are headless relative clauses introduced by a general complementizer, a relativizing complementizer, or no marker at all: crucially, their only difference with free relatives is that they are not introduced by an interrogative pronoun (or any other pronominal element).

(14) Matlatzinca (from Palancar & Carranza Martínez 2020:168)
ga khwen hóhya **[n** gu khana pax-kwentu]
PRTCL 1PL.INCL.INCPL forget REL 3SG.INCPL well keep-talk

'And we forget about the one who has a good command of the language.'

As we see in (14), the relative clause resembles the pattern we have seen in Old Avestan, particularly relative clauses without any head (internal or external). As the relativizer is not interrogative-based, it seems that super-free relatives are a good candidate for the typological category of Old Avestan relative clauses without an external head.

However, there is a point of convergence between free relatives and the Old Avestan data in question. Caponigro (2003) has shown that cross-linguistically, the pronouns introducing the free relative and the embedded interrogative always pattern together (rather than free relatives and externally-headed relative clauses patterning together). For instance, if a language (such as Hebrew, as shown below, has embedded interrogatives, free relatives, and externally-headed relative clauses, the relative pronoun introducing the embedded interrogative (15a) and the free relative

(15b) is the same. Example (16) shows an externally-headed relative clause that cannot be introduced by the same relativizer as the pronoun in (15b) – essentially, a free relative might not have the same relative pronoun as an externally-headed relative clause, but it crucially has the same relative pronoun as an embedded interrogative.

(15) Hebrew (from Caponigro 2003:24)

a. *taglid li **mi** oved kaše*
tell me who works hard

'Tell me who works hard.'

b. *Ani ma'aric **mi** še-oved kaše*
I admire who COMP-works hard

'I admire those who work hard.'

(16) *Ani ma'aric anašim (*mi) še-ovdim kaše*
I admire people (*who) COMP-works hard

'I admire people who work hard.'

Interestingly, the same phenomenon is found in languages with a free relative without an interrogative-based relative pronoun, i.e. Classical Greek (Faure 2011) and Vedic Sanskrit (Davison 2009). It is therefore not too surprising that some embedded interrogatives in Old Avestan are also introduced by a *ya*-based pronoun, rather than a *ka*-based interrogative pronoun:

(17) **pərəsā=cā** nå̊ [**yā** tōi əhmā parštā]
ask.IMPER.2SG=CONJ us.DAT REL.NOM you.DAT us.INST asked.NOM

'And ask us what (is to be) asked by us of thee.' (Y 43.10)

(18) vå̊ fraēšiiā **mrūitē** [**yā** və ā.manaŋhā]
you.DAT urge.PRES.1SG tell.INFV REL.NOM you.GEN passion.NOM

'I urge you to tell which (are) the passions of yours' (Y 49.6)

As we see, although Old Avestan has a specific set of interrogative pronouns for canonical questions (*ka*-based), it still uses the relative pronoun to introduce the embedded interrogatives in (17) and (18). This is consistent with the typology of free relatives as described by Caponigro (2003). In contrast, super-free relatives behave differently: in all Mesoamerican languages discussed in Caponigro (2021), embedded interrogatives are introduced by an interrogative pronoun, which is not the same element that introduces super-free relatives.

To conclude, there appears to be a cross-linguistic affinity between free relatives and embedded interrogatives. Although the precise nature of this relationship remains unclear, its presence offers a useful diagnostic for distinguishing genuine free relatives. According to this diagnostic, Old Avestan, Vedic Sanskrit, and Classical Greek seem to also have genuine free relatives. Consequently, the typology of free relatives should extend to languages where the relative pronoun is not interrogative-based.

4. The syntax-semantics interface. How can we account for Old Avestan free relatives? Crucially, Jacobson (1995)'s account would be a priori untenable, as in that account it is the interrog-

ative pronoun that motivates maximalization, definiteness, and consequently the type shift. However, Old Avestan free relatives are not based on an interrogative pronoun. Therefore, the definite interpretation cannot be attributed to the exhaustiveness of the interrogative pronoun. While Caponigro (2003)'s analysis can be adopted, some properties of Old Avestan free relatives (being introduced by a non-interrogative word and the unrestricted use of an internal head) can motivate a novel analysis of free relatives at the syntax-semantics interface. The advantage of the proposal put forth in this paper is that it does not attribute the definiteness to a silent operator; rather, it captures the definiteness by leveraging the unique configuration of free relatives and the semantic contribution of the relative pronoun. In a sense, this proposal is a synthesis between the semantic analysis in Jacobson (1995) and a recently proposed syntax for free relatives by Caponigro (2023). As a starting point, note that there are two features of free relatives, cross-linguistically, that distinguish them from externally-headed relative clauses:

1. Free relatives have a definite semantics. Externally-headed relatives do not;

2. Free relatives either do not have an overt nominal head, or – at least in Old Avestan – have an internal overt nominal head. Externally-headed relatives always have an external nominal head.

I argue that these two characteristics are not independent. Ideally, an analysis of free relatives should reveal the interdependence of these distinctions, suggesting that one gives rise to the other.

As mentioned in §3, an overt internal nominal head in Old Avestan free relatives is always bare – it consistently lacks modifiers (demonstrative, quantificational, and possessive). This is an important clue about the internal structure of this construction, namely that whatever position the modifier otherwise occupies is unavailable here. The unavailability of this modifier position follows from the fact that the relative pronoun in these relative clauses always precedes the overt head noun (if there is one). In essence, the relative pronoun occupies this position, leading to the absence of other modifier elements in free relatives with an overt nominal head. I propose that the definite force comes from the relative pronoun in that modifier position.

Now, why should the relative pronoun being a determiner of the internal head noun give it a definite reading (and, for instance, not an indefinite one)? I propose that in the case of the relative pronoun *ya-* (in Old Avestan, as well as Old Persian and its cognate form in Sanskrit), the answer lies in the history of this morpheme. The Old Avestan relative pronoun *ya-* has been reconstructed as the Proto Indo-European **yo-*,[8] but its original function has been topic of debate. While some scholars assume that **yo-* was the original Proto Indo-European relative pronoun, another hypothesis is that this form was originally a demonstrative form (for thorough overviews on discussions about this debate, see Probert 2015 and Ram Prasad 2022). This is due to the fact that the form of the relative pronoun **yo* has a striking resemblance to that of anaphoric pronouns of the root **i-/*ei-*. This hypothesis aligns with plausible diachronic scenarios, as relative pronouns are usually derived from interrogative or demonstrative pronoun, and we are certain that **yo-* is not derived from the former (because of the existence of another class of relative pronouns in Indo-European languages, **k^we-/*k^wi-* root, which pattern with interrogative pronouns, and the fact that **yo-* pronouns never occur in direct questions). Despite ongoing controversies, the hypothesis of the anaphoric source of **yo-* and its descendant forms remains a viable proposition,

8. In the context of reconstruction, the asterisks shows unattested reconstructed forms, and should not be confused with the ungrammaticality marker in theoretical linguistics.

one that I adopt here. Therefore, as anaphoric expressions are likely to be definiteness markers, I assume that this can be built into the semantics of these relative pronouns.

The preliminary picture of the syntax-semantics interface in free relative is rather clear now: the particular configuration of the head noun following the relative pronoun translates into the relative pronoun acting as a determiner for the bare head noun, and giving it a definite semantics. Hence the definite semantics of free relatives. To spell out this proposal, I first adopt a semantically contentful account of the relative pronoun in externally-headed relative clauses. I take the relative pronoun as a linker between the head noun and the relative clause (which contains a gap and, therefore, denotes properties): it takes two properties and intersects them.

(19) $[\![\text{ya-}]\!]_{EHRC}$: $\lambda P \lambda Q \lambda x.[P(x) \wedge Q(x)]$

The relative pronoun in a free relative is minimally different from that of externally-headed relative clauses. The difference between its function in these two relative clause constructions amounts to how the free variable is bound: a lambda-operator in externally-headed relatives, or, by virtue of being at the left of the head noun (a canonical position for determiners) and its original anaphoric function, an iota-operator in free relatives. Therefore, I suggest that the relative pronoun has the following semantics in free relatives:

(20) $[\![\text{ya-}]\!]_{FR}$: $\lambda P \lambda Q \iota x[P(x) \wedge Q(x)]$

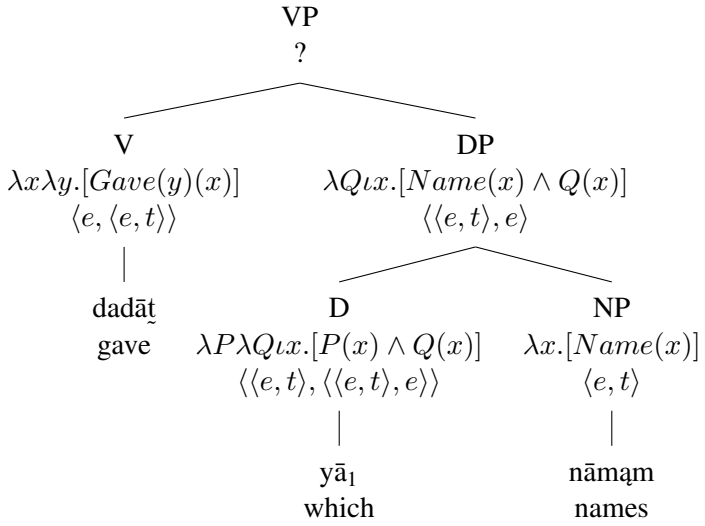
To see the actual structure, let us consider the example in (21) (the free relative component of the correlative construction in (13), discarding the indirect object for the sake of simplicity).

(21) [[**yā** ... ahurō **nāmąm** dadāṯ]
REL.ACC ... Ahura.NOM name.ACC give.PRES.3SG

'Which names Ahura ... gave (you)'

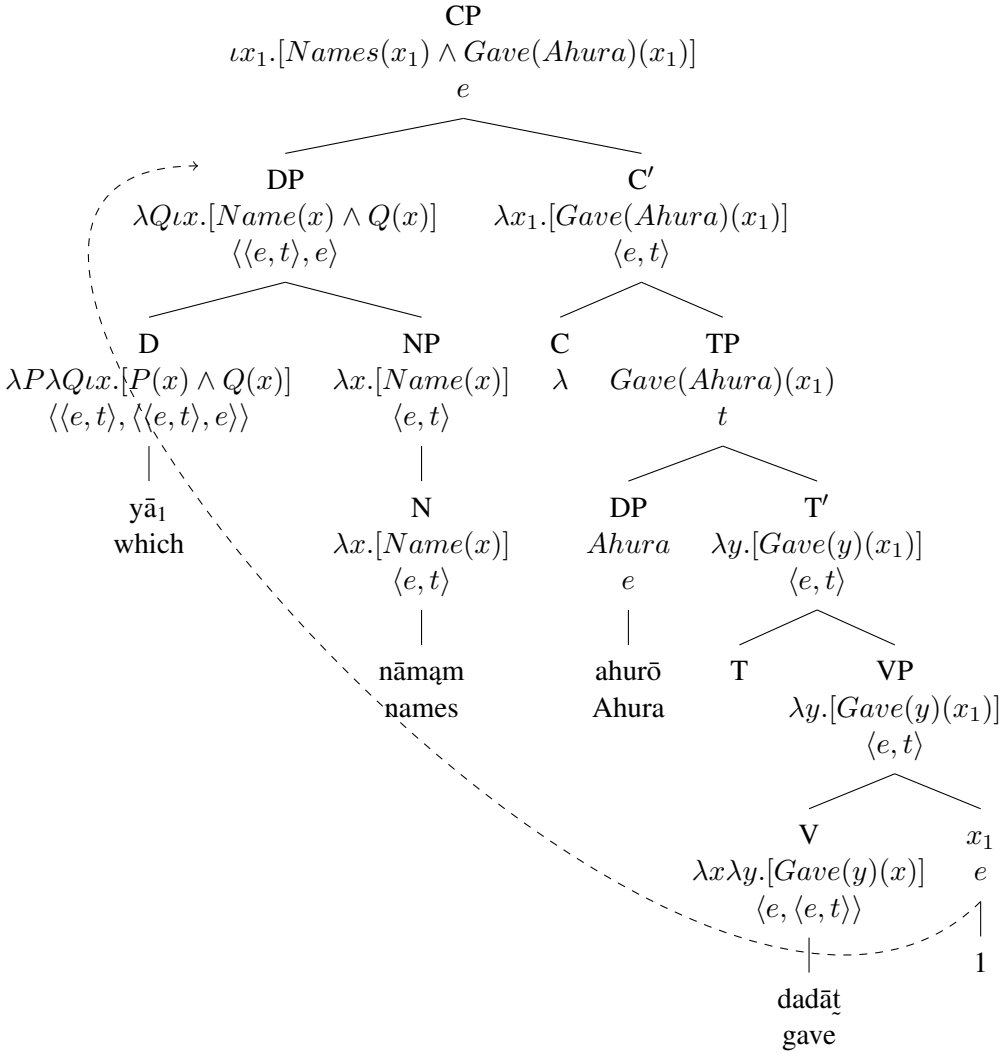
In a free relative, the relative pronoun and the internal head are merged in argument position, forming a DP. In this base-generated configuration, this DP cannot semantically combine with the verb, as seen in (22).

(22)



Since the DP (consisting of the relative pronoun and the head noun) cannot combine with the VP, it moves to specifier of CP, where the types match. This mismatch and its resolution explain an empirical fact about free relatives, namely the fact that the relative pronoun (and the internal head noun, if there is one) always appears clause-initially. As Old Avestan is highly-scrambling, the head noun can scramble into lower positions (as seen in 21), but the relative pronoun consistently appears at the beginning of the clause. The resulting structure is shown in (23):

(23)

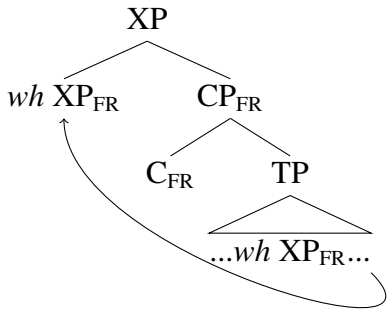


Note that the evidence for base-generation of the head noun adjacent to the relative pronoun comes from the case agreement between the relative pronoun and this overt nominal head, which has no exception at all.

Interestingly, Caponigro (2023) has proposed a new syntactic analysis of free relatives that accounts for free relatives introduced by a *wh*-phrase. The goal of his proposal is to resolve the

labelling issue raised by free relatives: in light of Chomsky (2013, 2015), Caponigro's work devises a labelling mechanism where, as long as the merged phrases and the phrase it merged with agree in relevant features, the merged phrase can trigger labelling, both in Internal Merge and in External Merge. This system enables a free relative to have a DP label (coming from the so-called *wh*-phrase). While the current paper does not discuss labelling (therefore maintaining the CP label in (23) for the free relative), the structure that Caponigro (2023) proposes is very similar to the syntax assumed in (22) and (23):

(24)



Crucially, both the problem of semantics (in my proposal) and the issue of labelling (in Caponigro's (2023) proposal) are resolved by positing a nominal head in the structure. However, we know that many free relatives are actually headless, both cross-linguistically and in Old Avestan, as illustrated in (10) and (12). I propose that these apparently headless structures in fact contain a covert nominal head, but in a restricted fashion: the covert head must be either the noun for *person* or the noun for *thing*. In Old Avestan, when the covert head is *person*, the relative pronoun bears masculine case; when it is *thing*, the relative pronoun bears neuter case.[9] The evidence for this assumption comes from the rarity of headless free relatives in Old Avestan with feminine case marking: the only such cases are all copular predicative free relatives, where the relative pronoun receives its case from the feminine noun in predicate position. Whatever our syntax of the copular predicative clauses might be, it appears that there is a restriction banning headless free relatives with non-copular verbs bearing feminine case marking. This can be explained by assuming that only the words for *thing* and *person* can be covert internal heads.

4.1. EVIDENCE FROM GEORGIAN. In the proposal outlined above, the source of definiteness in free relatives is attributed to the relative pronoun occupying the determiner position of an internal head noun. In non-interrogative-based free relatives (such as those found in Old Avestan, Sanskrit, and Classical Greek) the definite force arises from the origin of the relative pronoun

9. A comparable case is Voldemort sentences: Elbourne (2013) similarly assumes that in the structure of Voldemort sentences in English, there is a phonologically null noun phrase. Voldemort sentences are restrictive relative clauses that follow a pronoun without an overt noun. Elbourne argues that there is a silent *person* as the head of the relative clause, as in (2).

(i) a. He Who Must Not Be Named killed Lily and James Potter.

b. Those who hesitate are lost.

(ii) [he [person [who ...]]].

in Proto Indo-European **ya-*, which functioned as a demonstrative. The same can be said for interrogative-based free relatives à la Jacobson (1995). This assumption makes an important prediction: if such a pronominal element is absent as the relativizer, the necessarily definite reading should disappear. It turns out that this prediction is indeed borne out in Georgian.

Georgian has a type of relative clause construction introduced by the relativizer *rom* (Bhatt & Nash 2023), where this *rom* is not a pronominal, just a complementizer. *Rom*-relative clauses can either be headless, or contain an internal nominal head. They can also appear in argument position, or in a correlative construction, i.e. left-dislocated with resumption. Essentially, they seem to have exactly the same internal structure and distribution as free relatives.

However, *rom*-relatives do not semantically pattern with free relatives. When in argument position, they can have an indefinite interpretation:

(24) da=v-p'at'iž-e [nino-s **rom** gogo mo=sc'on-s]
PREV=1SUBJ-invite-AOR.1SG Nino.DAT COMP girl-NOM PREV=like-PRES.3SG

'I invited a/the girl that Nino likes.'

On the other hand, in a correlative construction, a *rom*-relative necessarily has a definite reading:

(25) [po'et'-ma **rom** (kalak-i) da=atvalier-a] **is** lamazi kalak-i
poet.ERG COMP city.NOM PREV=visit-AOR.3SG DEM beautiful city.NOM
m-iq'var-s
1OBJ-love-PRES.3SG

'I love the/*a beautiful city that the poet visited.'

Bhatt & Nash (2023) argue that the reason why these relative clauses have a definite interpretation if they are in a correlative construction is that they are arguments of the demonstrative pronoun that resumes them, which has an iota operator as part of its denotation (à la Elbourne 2008). In argument position, these relative clauses act as bare NPs which, in Georgian, can be bound by various silent D heads and receive various interpretations.

Essentially, the only structural difference between Georgian *rom*-relatives and free relatives is that there is no pronominal element in the internal structure of *rom*-relatives. Once such a pronominal element exists (as in a correlative-like construction), definiteness is guaranteed to obtain. In free relatives (which by definition have a pronominal as their relativizer), the definite interpretation is acquired regardless of the existence of other definiteness-triggering elements; free relatives cross-linguistically do not need to be in a correlative construction to have a definite reading. This contrast shows that having a pronominal relativizer is crucial to the obligatorily definite reading of free relatives, and motivates accounts that attribute the definiteness to the relative pronoun.

5. Conclusion. Old Avestan free relatives contribute to the study of free relatives from two main perspectives. First, they demonstrate that, typologically, free relatives can be non-interrogative-based. Second, they motivate an account of free relatives at the syntax-semantics interface that integrates insights from Jacobson (1995) and Caponigro (2023), deriving the definite reading

from the specific configuration of the construction – namely, a relative pronoun preceding an internal head noun. While the proposal developed here focuses on non-interrogative-based free relatives, extending it to interrogative-based free relatives is expected to be straightforward. Looking ahead, further research is needed to explore the implications of this proposal for two other major issues in the study of free relatives: syntactic labelling and case matching requirements.

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