Pseudo-relative clauses, infinitives and gerunds with Spanish perception verbs:

A comparative view

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Abstract

In this paper, we provide a comparative analysis of three constructions that occur with perception verbs like *ver* ('see') in Spanish: infinitives, gerunds and so-called Pseudo-relative clauses. We analyse several phenomena regarding the transparency status of the embedded inflected or uninflected clause, such as the availability of long (i.e., matrix) passive, short (i.e., embedded) passive, the occurrence of modal verbs, embedded negation, and left-peripheral fronting. Our data from acceptability judgment tasks and a Spanish corpus lead us to postulate that, albeit their surface similarities, the three examined constructions have different syntactic structures, reflected by their structural integration and the phasal vs. non-phasal status of the embedded clause: We argue that gerunds are secondary predicates, while Pseudo-relatives and infinitives are complements of the perception verb. With respect to the latter two configurations, Pseudo-relatives are defective CPs (and thus weak phases) that allow (finite) raising-to-object, but not raising-to-subject. Infinitives, on the other hand, show inter-speaker variation with respect to their structural size as voiceP or TP, accounting for variable acceptability judgments.

Keywords: Pseudo-relatives, infinitives, gerunds, Spanish, syntax, perception verbs, phase theory, movement, deficiency, variation

1 Introduction

It is well known that Spanish allows four types of clausal complements with the matrix perception verb *ver* 'see'. First, Spanish allows a proto-typical finite complement clause, being fully specified for tense and phi-features, introduced by the complementizer *que* 'that':

(1) Juan vio que { María / yo / él / *pro* …} bailaba. Spanish
Juan saw.3SG that María I he Ø danced.3SG
'John saw that Mary/I/he danced.'

In this clause, the embedded subject can be a full DP, a strong pronoun, or a null subject with free reference.

Furthermore, *ver* can take nonfinite complement clauses, either an infinitive (see (2)) or a gerund (see (3)):[1]

(2) Juan vio a María bailar.
Juan saw.3SG DOM María dance.INF

(3) Juan vio a María bailando.
Juan saw.3SG DOM María dance.GER
'John saw Mary dancing.'

In both configurations, the embedded clause lacks tense and phi-specifications as well as a complementizer.

In a fourth configuration, *ver* appears with an object DP or clitic in the matrix clause and is followed by an inflected complement introduced by the complementizer *que* 'that'. Note that the semantic subject of the embedded verb occurs overtly in the matrix object position, and not within the embedded clause, unlike (1):

[1] Note that the properties of infinitival and gerundial clauses in Spanish perception complements is not readily comparable with the English infinitival and gerundial clauses in the same contexts; cf. for English Felser 1996. Therefore, in some cases we use an English gerund to translate a Spanish infinitive, or vice versa.

(4) Juan vio a María$_i$ que {*María$_i$ / *Juan / __ $_{i/*j}$} bailaba.
Juan saw.3SG DOM María that María Juan danced.3SG
'John saw Mary dancing.'

The configuration in (4) has standardly been referred to as a pseudo-relative clause (henceforth, 'PR'), pointing to parallels and differences with respect to 'true' relative clauses:

(5) Juan llamó a María, que bailaba.
Juan called.3SG DOM María who danced
'John called María, who was dancing.'

Even though infinitives, gerunds and PRs as complements of perception verbs (2) – (4) have been studied on a separate basis in Spanish, a systematic comparison between the different configurations is still a matter of open research. One of the main aims of this paper is thus to provide an in-depth study of the syntactic differences and similarities between these types.

1.1 *The data used for this paper*

Our study relies on various data types throughout the paper, so this section aims at making these explicit. We relied on observations from (i) previous literature, (ii) corpus data, (iii) an online questionnaire, and (iv) judgments from linguist informants.

We (i) consulted the observations and generalizations that have been made regarding the syntax of clausal embedding with perception verbs on Spanish in the literature, for example Suñer 1984, Campos 1994, Di Tullio 1998 Rafel 1999, 2000, Camacho 2011, Ciutescu 2018, among others.[2] However, some properties that are crucial for determining the syntactic

[2] For gerunds, see e.g. Borgonovo 1996, Di Tullio 1998, Fernández Lagunilla 1999, Hernanz 1999, Casalicchio 2013, Fábregas & Jiménez Fernández 2016, Casalicchio 2019; for infinitives, Di Tullio 1998, Hernanz 1999, and Ciutescu 2018. Finally, data for PRs can be found in Suñer 1984, Campos 1994, Brucart 1999, Camacho 2011, and Herbeck 2020. In addition, papers that discuss two constructions (usually contrastively) are Fernández

(transparency) of the (non-)finite complements are not fully addressed in previous studies. For example, the (im-)possibility of verbal periphrasis and embedded modal verbs (see (6)) could provide some evidence regarding the structural richness of the extended functional projection of the embedded verb and long passivization (see (7)) is crucial evidence for extraction possibilities.[3] However, these phenomena are either not discussed in the literature, or they are only discussed for a subset of configurations (e.g. gerunds vs. infinitives in Di Tullio 1998):

(6) %Vi a María (teniendo que / tener que / que tenía que) vomitar.
saw.1SG DOM Mary have.GER to have.INF to that had to vomit.INF
'I saw that Maria had to throw up.'

(7) %María fue vista {bailando / bailar / que bailaba}.
María was seen dance.GER dance.INF that danced.3SG
'Maria was seen dancing.'

We therefore (ii) collected corpus data from CORPES XXI (RAE), above all with respect to PRs, which are the least studied in the literature on Spanish perception verbs. In our search of CORPES XXI (RAE) we looked for occurrences of the lemma *ver* 'see' that was preceded by an accusative clitic pronoun and followed by a complement clause introduced by *que* 'that'.[4] We obtained just 160 hits and, after manual revision, only 74 of them were classified as unambiguous cases of PRs. Furthermore, these 74 sentences were from different varieties of Peninsular and American Spanish. Due to this limited number, various properties occurred only

Lagunilla 2011 (gerunds and PRs), Di Tullio 1998 (gerunds and infinitives), and Rafel 1999, 2000 (infinitives and PRs). Note that Rafel 1999, 2000 also discusses gerunds, but only in English, and not in Spanish.

[3] In this paper, we refer to the passivization of the matrix verb *ver* 'see' with the term 'long passive', and to the passivization of the embedded verb with 'short passive'.

[4] The reason why we limited the search to clitic antecedents is because these cases are unambiguously PRs, i.e. they cannot receive the structure of a canonical relative clauses, as is the case with DP antecedents. For data from CORPES XXI regarding pseudo relatives with proper noun heads, see Aldama García & Moreno Sandoval 2017.

once, or a few times, in the corpus (such as tense mismatches or embedded modal verbs), which made it impossible to generalize the findings. Throughout the paper, all corpus examples that we discuss are from these 74 examples obtained through the search of CORPES XXI.

While the corpus search allowed us to detect several properties of interest of this structure, the overall scarcity of pseudo-relatives in the corpus data made it necessary to rely on alternative methods. Thus, (iii) we carried out an online acceptability judgments task with 75 native speakers of (different varieties of) Spanish. With the questionnaire, we intended to find out the acceptability of three phenomena related to the structural size and transparency of the complement – the presence of embedded modal verbs, long passives (of the matrix verb), and short passives (of the embedded verb) – and one related to the (non-)existence of subject-object asymmetries, which is not the focus of this paper (see Herbeck & Casalicchio 2023). In this online task, native speakers rated the acceptability of the relevant sentences (plus fillers) on a Likert scale from 1-5 (see § 2.4 for a detailed description of the methodology and findings).

While the online questionnaire allowed us to test a lower number of constructions (long and short passives and embedded modal verbs) with a higher number of speakers, the results raised new questions with respect to the investigated constructions, which made it necessary to (iv) carry out a follow up study with linguist informants. We thus designed two further questionnaires (in written form) – one with 13 and the other one with 7 linguist informants – asking for grammaticality judgments ranging from unacceptable (*), intermediate acceptability (?) and acceptable. The phenomena that were tested included left peripheral fronting inside the embedded clause and embedded negation in relation to long passives.

In the remainder of this paper, we refer to the online acceptability task with ‘AJT’ and the two questionnaires with linguist informants with ‘Q13’ and ‘Q7’.

1.2 *Main proposal and outline*

The main results of our study show that the three constructions in (2) – (4) have different syntactic properties, with the clearest differences arising with long passives: the matrix verb *ver* 'see' can be passivized when it embeds a gerundial clause, while it cannot when it embeds a PR. With infinitival clauses we find a bimodal distribution, with the majority of informants rejecting long passives, but there are several speakers that accept it.

We propose that these differences can be explained if the clauses with the perception verb *ver* have different 'sizes' *and* are the result of different integration mechanisms into the matrix *v*P. The following three structures depict our main theoretical proposal for the differences between PRs, gerunds, and infinitives in the complement of the perception verb *ver* 'see' (see §3 for the full analysis):

(8) Gerund:[5]

Vi a Juan$_i$ [$_{AspP}$ PRO$_i$ *cantar*+Asp [$_{VP}$ V ~~*cantar*~~]]

(9) Pseudo-relative:

Vi [$_{vP}$ a Juan$_i$ $v_{[ACC]}$-~~*vio*~~ … [$_{CP}$ *que* C$_{[-tense]}$ [$_{TP}$ ~~Juan$_i$~~ T$_{[\varphi:+]/[-Case]}$-*cantaba* [$_{VoiceP}$ ~~Juan$_i$~~…]]]]

(10) Infinitive:

a. Speaker A: *Vi* [$_{VoiceP}$ a Juan Voice-*cantar* [$_{VP}$ …]]

b. Speaker B: *Vi* [$_{TP}$ a Juan T-*cantar* [$_{VoiceP}$ ~~Juan~~ Voice-~~*cantar*~~ [$_{VP}$ …]]]

In a nutshell, gerundial clauses have one derivation in which they are secondary predicates (Small Clauses; see (8)).[6] This way, the matrix DP can be merged as an internal argument inside the matrix VP and the non-finite clause is generated in a non-argument position. As we show

[5] For gerunds, this is just one of the structures available (see Di Tullio 1998, Casalicchio 2019). We cite this structure because it is the only one compatible with long passives.

[6] Note that the verb moves to Asp, where it incorporates a null Asp. This incorporation process yields the gerundial form.

throughout the paper, this derivation straightforwardly accounts for the possibility of apparently 'long' passives because these are actually 'short' matrix passives.

In the case of both PRs and infinitives, we argue that they are complements of the matrix perception verb in Spanish, but they have different sizes. PRs do not allow long passivization because they are defective (weak) phases. Adopting a phasal account in the vein of Sheehan & Cyrino 2018, 2022, based on Chomsky's 2001 *Phase Impenetrability Condition* 2 (PIC2), and a finite raising analysis of Spanish pseudo-relatives (see Herbeck 2020), raising-to-object is possible because only one phase (the embedded CP) has to be crossed (see (9)) and Chomsky's 2001 PIC2 is not violated. Long passives, i.e. the promotion of the semantic subject of the embedded verb into the matrix subject position (Spec,TP), in contrast, are impossible. This movement operation would either violate Chomsky's 2001 PIC2 because two phases would have to be crossed – the embedded CP as well as the matrix VoiceP – or it would yield improper A-A'-A movement, if it used Spec,CP as escape hatch. For infinitives, we propose that there are two grammars (see (10)). The majority of speakers, which rejects long passives, assigns a (phasal) VoiceP-structure to the infinitival clause (following the phase-based approach of Sheehan & Cyrino 2018, 2022). This way, movement into matrix Spec,TP would violate PIC2, crossing the embedded and the matrix VoiceP phases (10a). Those speakers accepting passivization assign a TP-structure with an intermediate A-position to the embedded infinitive. From this position, movement into matrix Spec,TP is possible because only one phase – the matrix VoiceP – has to be crossed in accordance with PIC2 (10b). Thus, we argue that there is inter-speaker variation with respect to whether Spanish infinitival complements of perception verbs are interpreted as bare infinitives or not. The availability of two different structures assigned to infinitival clauses is proved by the acceptability of negation (through Q7), the embedding of modal verbs and variation with respect to the acceptability of long passives (both through the AJT).

This paper is structured as follows: First, we discuss properties of gerunds, infinitives and pseudo-relatives in Spanish that are taken from the literature to date, from corpus data and from the AJT; we also offer some preliminary observations about the judgments from linguist informants (§ 2). Thereafter, we outline the details of the theoretic proposal for the differences observed between the three structures in terms of phase theory, different degrees of truncation of complement clauses, and selectional and configurational properties of the nonfinite and finite structures (§ 3). Section 4 is dedicated to some issues for future research, paying special attention to some comparative notes with respect to other Romance languages, in particular Italian and European Portuguese. The last section offers some concluding remarks.

2 Complements of *ver* 'see' in Spanish – previous data and analyses

Although perception complements have been studied in various Romance languages, there are still some unsolved issues. In Spanish, their core properties have been described and analysed in various papers which have their main focus on gerundial and infinitival constructions (see e.g. Di Tullio 1998, Hernanz 1999, Ciutescu 2018 for an overview). PRs have been paid less attention to in the literature on Spanish perception verbs (but see Suñer 1984, Campos 1994, Rafel 1999, 2000, Camacho 2011, Herbeck 2020). In addition, while some properties have been studied in detail (e.g., availability of negation, direct perception readings, word order, etc.), other properties have not been studied to a full extent in any construction (e.g., the availability of short passives), and comparative data between the different constructions are rare.

In the following subsections, we will outline the properties of complements of perception verbs in Spanish that have been discussed in previous literature and some preliminary observations from corpus examples and from native speaker judgments (Q7 and Q13). Thereafter, we discuss open issues and turn to the online AJT that has been designed to address them.

2.1 *Morpho-syntax: tense, phi-features and structural deficiency*

Gerunds and infinitives lack tense and phi-features with perception verbs (see Casalicchio 2019), and usually their interpretation depends on the syntactic structure in which they occur. Thus, the event time of the embedded verb is interpreted as coincident with the event time of the matrix verb. In addition, the external argument of the non-finite form shares the same reference with the accusative DP of the perception verb (as in English):

(11) Veo a José {bailando / bailar}.
see.1SG DOM José dance.GER dance.INF
'I see José dancing/dance.'

On the contrary, PRs do have a morphological specification for phi-features and tense. However, it has been observed in the literature that tense features of pseudo-relatives, even though being morphologically specified, must be anaphoric with respect to the matrix tense (Campos 1994, Rafel 1999:169; see also Cinque 1992, Casalicchio 2016, Graffi 2017 for Italian):

(12) a. * Veo a José que venía.
see.1SG DOM José that came.3SG
b. * Vi a José que viene / vendrá.
saw.1sg DOM José that comes come.FUT.3SG
(Campos 1994: 212)

The corpus data also point into the direction that matching matrix and embedded tense is the highly preferred option. Even though some apparent tense mismatches can be found (as in (13)), these were extremely rare (only three potential cases):

(13) […] hasta que los vimos que habían entrado en una casa,
until that them saw.1PL that had.3PL entered in a house
se escondieron en una casa.
REFL hid.3PL in a house
'[…] until we saw that they had entered a house, they hid in a house.'
(CORPES XXI (Peru; written, fiction))

In (13), what makes the tense mismatch possible is that the result of the action of entering the house is still perceivable even when the action itself is completed. Thus, it seems firm to assume that PRs do not have fully independent tense, because there is at least a partial overlap between the time at which the event of seeing takes place and the time of the embedded event, or of its result.

Just as the embedded tense is anaphoric to the matrix tense in PRs, phi-features of the embedded verb are usually anaphoric to the matrix object antecedent:[7]

(14) a. Juan ve a María$_i$ que {__$_{i/*j}$ / *Juan} baila.
Juan sees DOM María that Juan dances
'Juan sees Maria dancing.'

b. * Juan ve a María que bailo / bailas.
Juan sees DOM María that dance.1SG dance.2SG

This indicates that neither tense nor phi, even though morphologically encoded in T/AGR, are anchored to full deictic tense and speaker/addressee coordinates in C (in the sense of Bianchi 2003, Sigurðsson 2011). As will be argued in section 3, this has the consequence that pseudo-relatives, even though containing a complementizer, are at most deficient CPs. Lacking C-related tense and person (i.e. Bianchi's 2003 "external logophoric centre"), nominative Case

[7] We abstract away from the cases of PRs in which it is the embedded dative or accusative clitic that corefers with the matrix object, see Campos 1994, Herbeck 2020 and Herbeck & Casalicchio 2023) for this type of PR.

does not deactivate the embedded subject and raising into the matrix *v*P is possible out of the inflected complement clause.

Thus, PRs are morphologically specified for tense and phi, but they share the property with infinitives and gerunds of not sanctioning fully specified, independent syntactic tense and phi-features, which need to be at least partially anaphoric to the matrix tense and referent.

2.2 *Left peripheral fronting*

In this section, we discuss clitic left dislocation in the complements of perception verbs. We show that: i) non-finite complements (infinitives and gerunds) lack a topic position (even a low one); ii) PRs do have a left peripheral topic position, but they are structurally deficient CPs with respect to deictic person/tense anchoring; iii) and finite complement clauses of perception verbs are full CPs.

In the literature on perception constructions, left peripheral fronting is discussed by Gallego 2010 for gerunds and Camacho 2011 for PRs. In both cases, they argue that the two constructions have a defective left periphery blocking topicalization:[8]

(15) *Vi a Luis, los libros, leyéndolos.
saw.1SG DOM Luis, the books, read.GER-them
(Gallego 2010: 147)

(16) a. Vi a María que compró los panes.
saw.1SG DOM María that bought.3SG the bread
'I saw Mary buying bread.'

[8] This is in contrast with Italian PRs, where clitic left dislocation is allowed (Casalicchio 2013, 2016).

b. * Vi a María que los panes, los compró.[9]

saw.1SG DOM María that the bread them bought.3SG

(Camacho 2011: 26; glosses added)

On the other hand, as far as infinitives are concerned, left peripheral fronting is not discussed in the literature on perception verbs.

The data from grammaticality judgments by our linguist informants (Q13) show more variation as (15) and (16) suggest. Thus, there is a trend that CLLD is more easily accepted in PRs than in nonfinite structures, but less than in canonical finite complements:

(17) full finite complement:

Vi que, los libros, los leían en la biblioteca. (**ok: 13**, ?: 0, *: 0)

saw.1SG that the books them read.3PL in the library

(18) pseudo-relative:

La vi que, los libros, los leía en la biblioteca. (**ok: 7**, ?: 3, *: 3)

her saw.1SG that the books them read.3SG in the library

(19) infinitive:

La vi, los libros, leerlos en la biblioteca. (ok: 3, ?: 3, ***: 7**)

her saw.1SG the books read.INF-them in the library

(20) gerund:

La vi, los libros, leyéndolos en la biblioteca. (ok: 2, ?: 4, ***: 7**)

her saw.1SG the books read.GER-them in the library

Thus, even though PRs do not have a full-fledged CP, lacking deictic (person and tense) coordinates in the C-domain, they introduce an intermediate A'-position, differently from

[9] An anonymous reviewer points out that the perfective marking on the embedded verb could be problematic and that the structure could be an appositive and, thus, irrelevant to the PR structure. In our questionnaire, we tested clitic left dislocation in embedded clauses with imperfective aspect only (see (18)).

nonfinite complements of perception verbs, which are more reduced. As we argue in §3, PRs are weak phasal CPs and this has consequences for extraction possibilities.

2.3 *Negation*

A further property of infinitives, gerunds and PRs that might inform us on the relevant degree of their structural deficiency is negation. In fact, studies on all three structures have claimed that there is an incompatibility between negation and the embedded clause, see Hernanz 1999 for infinitives, Fernández Lagunilla 2011 and Casalicchio 2019 for gerunds and Campos 1994 for PRs:

(21) *Las vi no caminar.
them saw.1SG not walk.INF
(Hernanz 1999: 2247)

(22) *Vi a Juan que no durmió en su cama.
saw.1SG DOM Juan that not slept.3SG in his bed
(Campos 1994: 215)

However, the status of negation is not fully clear if further data are considered. On one hand, Campos 1994 observes for pseudo-relatives that these have a requirement of direct perception and that negation is impossible in some structures given that negated events cannot be directly perceived. In fact, if the negated event can be visually perceived, negation becomes possible in PRs (see Herbeck 2020):

(23) La vi que no paraba.
her saw.1SG that not stopped
'I saw how she didn't stopped [doing something]'

Here, the embedded negated event implies that somebody is doing an action that can be directly perceived and negation is possible. In fact, corpus examples with negation inside a PR can be

found, and they imply that direct perception of the event or state is possible (as indicated by *que se pone morao* 'that he turns violet' in (24); cf. Herbeck 2020):

(24) De pronto lo veo que no habla, que se pone morao.
suddenly him see.1SG that not speaks that REFL turns violet
'Suddenly I see that he doesn't speak, that he turns violet.'
(CORPES XXI, RAE; taken from Herbeck 2020)

This shows that semantic factors intervene in the possibility of negation.

Also native speaker judgments indicate that negation is possible in PRs if the embedded clause is a directly perceivable event. The following represent the judgments from 7 linguist informants:

(25) [Context: My sister usually doesn't like parties]
Pero anoche la vi que no paraba de bailar. (**ok: 7**; ?: 0, *: 0)
but yesterday.night her saw.1SG that not stopped.3SG of dance.INF
'But last night, I saw that she didn't stop dancing.'

With respect to infinitives, Fábregas & González 2020 also argue that the possibility of negation crucially depends on the semantics of the embedded event. Thus, negation is possible if the embedded event is an "inhibited eventuality" and the embedded subject an "initiator" of the event (see (26b)):

(26) a. *Vi (a) los precios no aumentar.
saw.1SG DOM the prices not rise.INF
Intended: 'I saw that the prices didn't rise.'

b. Vi (a)l gobierno no aumentar los precios
saw.1SG DOM-the government not raise.INF the prices
'I saw the government not raise the prices.'

(Fábregas & González Rodríguez 2020: 749)

According to the authors, there are two types of negation – a low one, which is possible with events that imply an initiator (as in (b)), and a high sentence negation, which is impossible in infinitives. Only low negation should thus be allowed in infinitival complements of perception verbs, explaining the ungrammaticality of (a).

However, these semantic restrictions do not explain the existence of general inter-speaker variation.[10] For example, Ciutescu 2018: 132f claims that native speaker judgments vary with respect to the acceptability of negation. In fact, there is no unanimous rating by the linguist informants we consulted (compare with (25)):

(27) [Context: My sister usually doesn't like parties]

Pero anoche la vi no parar de bailar. (ok: 3; ?: 2, *: 2)

but yesterday.night her saw.1SG not stop.INF of dance.INF

'But last night, I saw that she didn't stop dancing.'

In the case of gerunds, they are generally taken to be incompatible with negation in the literature (Fernández Lagunilla 2011). Casalicchio 2019 shows that when speakers want to describe the perception of something that is not happening, speakers resort to the construction '*sin* + infinitive':[11]

[10] In Moore 1991, negation is considered possible with infinitives:

(i) Vimos a Pedro no comer el potaje.

saw.1PL DOM Pedro not eat.INF the soup

'We saw that Pedro didn't eat the soup.'

(Moore 1991: 50)

[11] Note that the 'gerundial' value of the expression '*sin* + infinitive' in (28) is confirmed by the fact that it is coordinated with two gerunds (*negando* 'negating' and *sujetándose* 'seizing'), see Casalicchio 2019 for more details.

(28) Mientras, observo a mi tío con la mirada perdida,
in.the.meantime observe.1SG DOM my uncle with the look lost,
sin ya comer, negando con la cabeza
without anymore eat.INF negate.GER with the head
y sujetándose el mentón con las manos entrelazadas.
and seize.GER-REFL the chin with the hands joint
'In the meantime, I observe my uncle and see that he has a lost look, that he has stopped eating, is shaking his head and grasping his chin with hands interlinked.'
(Casalicchio 2019: 107, taken from the web)

Native speaker judgments confirm this interpretation. Negated gerunds are rejected by all 7 linguist informants we consulted:

(29) [Context: My sister usually doesn't like parties]
Pero anoche la vi no parando de bailar. (ok: 0; ?: 0, ***: 7**)
but yesterday.night her saw.1SG not stop.GER of dance.INF
'But last night, I saw that she didn't stop dancing.'

This confirms that gerunds are more restrictive than infinitives with respect to the possibility of negation. If we take negation to be evidence in favor of the projection of at least a TP, this might indicate that gerunds even lack this projection (cf. Casalicchio 2019); in the case of infinitives, the projection of a TP may be subject to inter-speaker variation.[12]

[12] An anonymous reviewer points out that aspectual, semantic and pragmatic factors might influence the possibility of negation inside infinitival complements of perception verbs. According to the reviewer, the negated sentence (i) is grammatical:

(i) El policía vio al conductor no parar en el semáforo.
the policeman saw.3SG the driver not stop.INF at the traffic.lights
'The policeman saw that the driver didn't stop at the traffic lights.'

In fact, we argue in § 0 that infinitives in the complement of *ver* 'see' are ambiguous between a VoiceP and TP structure and that the use of one or the other depends on the speaker.

2.4 *Further crucial properties of complements with perception verbs*

In the previous sections, we have summarized the data available in the literature to date on negation, non-anaphoric tense and left dislocation in the three configurations of gerunds, infinitives and pseudo-relatives. However, there are other properties that we consider crucial for the analysis of the complement of perception verbs. Therefore, we have collected data on long passives, short passives and the embedding of modal verbs.

Out of these three properties only the first has found some discussion in the literature on Spanish perception constructions.[13] Long passives are held to be possible when the embedded

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Here, contrary to (27), *parar* 'stop' is a lexical, and not an aspectual, verb. So, the acceptability of negated complements of perception verbs could also depend on a pragmatic condition, namely a requirement that the embedded event must have taken place.

In fact, as discussed above, some cases of ungrammaticality of embedded negated events to perception verbs might derive from a requirement of direct perception (see Campos 1994), given that only events that take place can be observed. However, this condition does not explain why the restrictions are observed most strongly with gerunds, less so with infinitives, and the structure is fully accepted in PRs by the speakers we consulted. These differences indicate that there must be a structural restriction on negation in gerunds, and to a minor degree in infinitives, independently of pragmatic constraints. An interesting perspective for future research would be to test different types of negated complements depending on whether the semantico-pragmatic restriction of direct perception is met or not with the three types of complements.

[13] Brito 1995 discusses modal verbs in European Portuguese. It is claimed that only *querer* 'want', but not *poder*/*dever* 'can/shall', is acceptable in EP PRs, (cf. (i) with (ii)):

(i) Vejo o teu filho que quer estudar (mas não consegue com o barulho).
see.1SG the your son that wants study.INF but not manages with the noise
'I see how your son wants to study (but he doesn't manage because of the noise).'
(Brito 1995: 36)

structure is a gerund (Sheehan & Cyrino 2022), while there is microvariation when it is an infinitive. According to Sheehan's 2023a analysis of causative constructions in Spanish, long passives of infinitives are only possible when the promoted subject is an internal argument of the embedded infinitive (thus, only if it is the object of a transitive verb and the subject of an unaccusative verb). With *ver*, on the other hand, some speakers allow promotion of external arguments in the ECM-construction. Finally, long passives in PRs are only briefly mentioned in Rafel 2000 and Herbeck 2020, but not fully developed. In addition, no paper offers a complete comparative view that includes all three structures.

Therefore, to gather more data we have carried out an online acceptability judgement task (AJT),[14] in which the informants had to rate sentences on a Likert-scale from 1 to 5 (1 corresponding to 'completely ungrammatical' and 5 to 'perfectly fine). In total, 21 target sentences (plus 22 fillers) were rated by 75 speakers. The data and results are discussed in the next subsections (§§ 2.4.1-2.4.3), where we indicate the mean acceptance, median and standard deviation of the target sentences. Note that in order to avoid an excessive length of the questionnaire, we could test only one sentence per condition ('form of the embedded verb (=

(ii) *Vejo o teu filho que pode/deve estudar.
see.1SG the your son that can/shall study.INF
'I see how your son can/shall study.'
(Brito 1995: 36)

However, these results are only compared to canonical relative clauses and full finite complements where no restriction with respect to the type of modal verb holds, but they are not compared to infinitival and gerundive clauses.

[14] The online AJT was designed with Google Modules, and it was divided into three parts: a sociolinguistic questionnaire, a short training example and the tested sentences (21 target sentences and 22 fillers). We considered the answers of 75 speakers, which were mainly from Spain (55). Their age ranged from 18-75 (mean age 32, median 30.5), and 58.5% of them were female.

gerund, infinitive, or PR)' x 'phenomenon investigated (= modal verbs, short passives, long passives)'). Therefore, these results are not considered as a quantitative database for statistic analysis. However, we think that the overall type and number of data allows us to compare the three investigated structures systematically and, thus, offers us an interesting picture of speaker intuitions about the grammar of complementation structures with Spanish perception verbs. The results were counterchecked with judgements given in the literature (whenever available) and with linguists that are native speakers of Spanish.

2.4.1 Modal verbs

Modal verbs have been tested because they have been argued to occupy a functional projection above *v*P/VoiceP (see Cinque 2006, a.o.); therefore, their presence or absence can be considered as a piece of evidence for the size of the embedded clause.

Looking at the corpus data, only one example of a modal verb inside a PR has been found:[15]

(30) lo veo que quiere jugar a una rapidez muy alta en el Morera […]
him see.1SG that wants play.INF at a speed very high in the Morera
'I see that he wants to play at high speed in the Morera' (CORPES XXI, RAE)

In the AJT, we tested the two verbs *querer* 'want' (the same used in the corpus example) and *tener que* 'have to' occurring either in a gerundial, infinitival, or PR-clause as complement of a matrix perception verb (see (31) and (32)):

(31) a. Los vi que querían ganar a cualquier precio.
them saw.1SG that wanted.3PL win.INF at any price
(mean 3.72, median 4, SD 1.27)

[15] On the other hand, a number of aspectual periphrases '*estar* + gerund' have been found in the corpus. Note that, according to Cinque 2006, aspectual verbs are lower than modals.

b. Los vi queriendo ganar a cualquier precio.
them saw.1SG want.GER win.INF at any price
(mean 4.01, median 1.18, SD 1.18)

c. Los vi querer ganar a cualquier precio.
them saw.1SG want.INF win.INF at any price
(mean 4.21, median 5, SD 1.12)
'I saw that they wanted to win at any price.'

(32) a. La vi que tenía que vomitar. (mean 3.56, median 4, SD 1.46)
her saw.1SG that had.3SG to throw.INF.up

b. ?La vi teniendo que vomitar. (mean 2.99, median 3, SD 1.59)
her saw.1SG have.GER to throw.INF.up

c. ?La vi tener que vomitar. (mean 2.47, median 2, SD 1.36)
her saw.1SG have.INF to throw.INF.up
'I saw that she had to throw up.'

It is interesting to observe that acceptability is generally higher with the modal verb *querer* 'want' than with *tener que* 'have to'. With *tener que* 'have to', acceptability is highest with PRs (mean acceptability 3.56); it drops with gerunds (2.99), and even more so with infinitives (2.47).

The higher acceptability of *querer* 'want' could be due to the fact that it is ambiguous between a modal verb (allowing restructuring) and a volitional lexical verb with a biclausal structure.[16] On the other hand, *tener que* 'have to' is unambiguously a modal verb: its low

[16] The double nature of *querer* 'want' is shown e.g. by the fact that it can take inflected subjunctive complement clauses (with obviation effects) and an object DP, unlike *tener que* 'have to' which always introduces infinitives:

(i) a. Quiero ir al mercado.
want.1SG go.INF to.the market
'I want to go to the market.'

acceptability with infinitives and gerunds is expected if these structures lack a TP. However, the fact that some speakers do not reject modal verbs in nonfinite complements might indicate that at least for these speakers a TP is available:

(33) % La vi ([$_{TP}$ tener-que-T) [$_{VoiceP}$ vomitar [$_{vP}$ ~~vomitar~~ …

PRs, on the other hand, show a higher acceptability of modal *tener que* 'have to', which is expected if they project more structure than uninflected verb forms. We will return to the syntactic analysis and the existence of speaker variation regarding the acceptability of modal *tener que* 'have to' in § 0.

2.4.2 Short passives

Another type of data that may offer us evidence for the internal structure of the complements of perception verbs is the availability of short passives, i.e. the passivization of the embedded verb. If we follow accounts in which active and passive voice, as well as the external argument, are encoded in a separate functional category VoiceP (see Chomsky 1995, Kratzer 1996, Sheehan & Cyrino 2018, among many others), the possibility of short passives might indicate that at least a functional VoiceP on top of *v*P/VP is present in the structure.

In our AJT, there is no categorical rejection of embedded passives in either of the three structures, although PRs are judged slightly more acceptable, while infinitives are marginal:

---

b. Quiero que Pablo vaya al mercado.
want.1SG that Pablo goes to.the market
'I want Pablo to go to the market.'

(ii) a. *Tengo que ir al mercado.*
have.1SG that go.INF to.the market
'I have to go to the market.'

b. **Tengo que Pablo vaya al mercado.*
have.1SG that Pablo goes to.the market

(34) a. A María, la vi que estaba siendo forzada. (mean 3.87, median 4, SD 1.27)
DOM Maria her saw.1SG that was be.GER forced

b. A María, la vi siendo forzada. (mean 3.45, median 4, SD 1.35)
DOM Maria her saw.1SG be.GER forced

c. ?A María, la vi ser forzada. (mean 3.16, median 3, SD 1.39)
DOM Maria her saw.1SG be.INF forced
'I saw Maria being forced.'

Given the similar acceptability of embedded passives in all three structures, this configuration seems to indicate that all structures under investigation contain at least VoiceP for most speakers, especially with PRs.

2.4.3 Long passives

Di Tullio 1998 postulates that one difference between gerunds and infinitives with perception verbs is that the former allow long passives while the latter block them (see also Castillo 2001: 130 for infinitives):

(35) María fue vista leyendo una novela.
María was seen read.GER a novel
'Mary was seen reading a novel.'
(Di Tullio 1998: 205)

(36) *María fue vista leer una novela.
María was seen read.INF a novel
(Di Tullio 1998: 205)

With respect to PRs, long passives have scarcely been investigated in the literature on Spanish. According to the following judgments in the work of Rafel 2000, PRs would pattern with infinitives and not with gerunds:

(37) ?* María fue vista que besaba a Juan.
María was seen that kissed.3SG DOM Juan
(Rafel 2000: 99, n. 74)

However, there is no comparative data with respect to long passivization in PRs, infinitives and gerunds. In our AJT, we tested a passivized version of the matrix perception verb *ver* followed by a pseudo-relative clause, a gerund, or an infinitive containing the unergative verb *llorar* 'cry':

(38) a. *La actriz fue vista que lloraba en un restaurante berlinés.
the actress was seen that cried.3SG in a restaurant Berliner
(mean 1.89, median 1, SD 1.29)

b. La actriz fue vista llorando en un restaurante berlinés.
the actress was seen cry.GER in a restaurant Berliner
(mean 4.57, median 5, SD 0.87)

c. %La actriz fue vista llorar en un restaurante berlinés.
the actress was seen cry.INF in a restaurant Berliner
(mean 2.77, median 3, SD 1.55)

'The actress was seen crying in a Berliner restaurant'

The results show that native speakers have in general sharp judgements as far as PRs and gerunds are concerned: PRs are generally rejected (mean acceptability: 1.89; median: 1), while gerunds are considered grammatical by almost all speakers (mean acceptability: 4.57; median: 5). These results confirm the judgements given in the literature (see above). On the other hand, infinitives received a mean rating of 2.77 (median 3) and have the highest Standard Deviation (1.55). The high SD indicates that long passives were not uniformly judged as 'marginally acceptable' (i.e. rated 3) by the speakers, but that inter-speaker variation exists with respect to the acceptability of this structure. In fact, looking in detail at the individual responses, the judgements show a bimodal distribution, with most speakers either considering the sentence

unacceptable (1 = 32%) or acceptable (5 = 20%) and only few speakers gave intermediate ratings (3 = 15%) (see Table 1).

Rating	1	2	3	4	5	TOT
no. of speakers	**24** (=32%)	12 (=16%)	11 (=15%)	13 (=17%)	15 (=20%)	75

Table 1: Percentages of ratings given in the AJT to long passive with an infinitival complement

2.4.4 Summary

In Table 2 we sum up the main properties of the three investigated structures, which are based both on the data available in the literature and on data newly collected for this study.

	PRs	Gerunds	Infinitives
Negation	ok	*	?
non-anaphoric tense	*? (only partial)	*	*
left dislocation	?/ok	*	*
modal verbs	?	?	?
short passives	ok	ok	ok
long passives	*	ok	%

Table 2: Summary of some key properties in the syntax of PRs, gerunds and infinitives with perception verbs[17]

[17] In Table 2, the symbol '%' means that in our AJT, a subgroup of informants accepted the structure and another subgroup rejected it, i.e. there was disagreement about the acceptability of the relevant phenomenon. The symbol '?' stands for marginal acceptability of the phenomenon by the majority of the speakers.

The previous discussion has shown that PRs are the most permissive structure with respect to all phenomena except long passives. On the other hand, gerunds are most restrictive with respect to negation, non-anaphoric tense and left dislocation of objects, but they are perfectly fine with long passives. Finally, infinitives pattern with gerunds in most phenomena, but they differ in two respects: first, they are more permissive with respect to embedded negation for some speakers, and second, they are more restrictive as far as long passives are concerned.

The observed properties indicate that gerunds, infinitives, and pseudo-relatives, even though they occur in the same context and have certain commonalities, have a different underlying structure. In the next section, we outline an approach to the differences observed between PRs, infinitives and gerunds as complements of perception verbs. We crucially rely on phase theory in combination with the assumption that the complement of perception verbs can have different sizes (following Sheehan & Cyrino 2018).

3 Analysis: phases, movement and complementation

In this section, we propose an analysis of the observed differences between PRs, infinitives and gerunds; we show that the differences depend on various factors, mainly the (non-)phasal status and the integration mechanism of the clause. Our starting point is Sheehan & Cyrino 2018, 2022, implementation of Chomsky's 2001 Phase Impenetrability Condition ('PIC2'), and the idea of different 'sizes' of inflected and uninflected clausal complements (Rizzi 1997, Felser 1999, Wurmbrand 2001, among others). In a nutshell, we argue that (i) PRs are defective (weak) CP phases (in the sense of Gallego 2010), introducing an A'-position, (ii) infinitives show inter-speaker variation, some assigning a non-phasal TP structure, others a phasal VoiceP structure,

and (iii) gerunds are AspPs, but they are not in a complement position; on the contrary, they are Small Clauses in an adjoined position.[18]

In the first subsection, we shortly introduce our basic assumption with respect to phase theory (Chomsky 2001, Sheehan & Cyrino 2018). Thereafter, we outline our analysis of PRs, gerunds and infinitives with matrix perception verbs.

3.1 *Phase theory and VoiceP as a phase*

In the minimalist framework of Chomsky 2000, 2001, 2007, 2008, syntactic derivations apply bottom-up, in a step-wise fashion, but certain derivational stages function as interface points with PF and LF, i.e. derivations are cyclic. Chomsky 2001: 14 motivates the CP and *v*P level as phases on the basis of "semantic phonetic integrity": phases are "propositional" on the LF side (Chomsky 2000: 107) and they are isolable objects at PF (see Chomsky 2004: 124). This way, transitive *v*P (but not VP) is a phase, because the former constitutes a full argument complex. CP, but not TP, is a strong phase because the former is a full proposition. According to Chomsky's 2000 Phase Impenetrability Condition 1 (PIC1), as soon as *v*P or CP is completed, the VP or TP complement is transferred to LF and PF.

In Chomsky 2001, the PIC1 is adapted so that Transfer of the complement of a phase head to the interfaces does not apply as soon as the phase head is merged, but when the next higher phase head is introduced. That is, in a full CP clause, the material inside VP remains accessible to higher operations until the phase head C is introduced:

[18] To be more precise, Di Tullio 1998 and Casalicchio 2019 claim that gerunds with perception verbs can enter different types of Small Clauses, which are adjunctive or argumental. The structure compatible with long passives is the adjunctive one (see below), and therefore we focus on it in this paper.

(39) PIC 2:

In a configuration [ZP Z ... [HP α [H YP]]], (where H and Z are phase heads)

"The domain of H is not accessible to operations at ZP; only H and its edge are accessible to such operations."

(Chomsky 2001: 14)

For embedded clauses, this means that material inside an embedded VP is accessible to higher operations until the embedded C is merged and, in the case of truncated, CP-less infinitives, until matrix *v* is merged.

Sheehan & Cyrino 2018, 2022, propose an account of the restricted availability of long passives in English and Brazilian Portuguese nonfinite complements of perception and causative verbs. They argue, building on Chomsky's 2001 PIC2, that in these contexts long passives are possible if only one phase boundary is crossed. This explains why long passives are grammatical in English infinitives introduced by *to*, but ungrammatical in bare infinitives:

(40) Long passive out of a bare infinitive:

*Kim$_i$ was made/had/let seen/heard [t_i sing]

(Sheehan & Cyrino 2018: 7)

(41) Long passive out of a *to*-complement:

She was made/seen/heard [$_{TP}$ to be the best candidate].

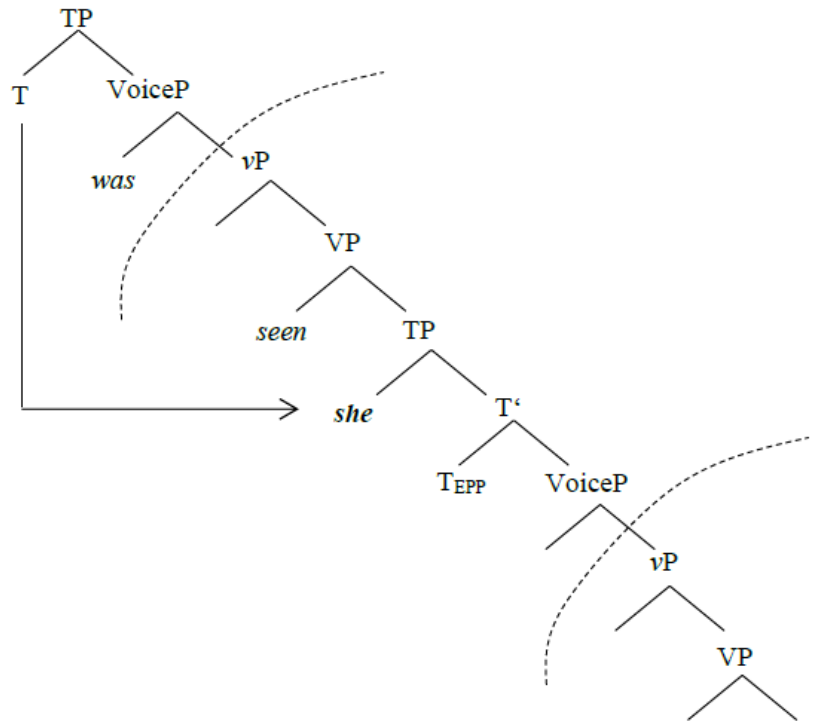
(Sheehan & Cyrino 2018: 7)

Sheehan & Cyrino (2022) argue that VoiceP above *v*P is a strong phase. Since bare infinitives are VoicePs lacking a TP projection, long passivization would have to cross two phase heads, the lower and the higher Voice in (42) yielding a violation of PIC2 (see also Casalicchio & Sheehan 2021, 2023 for discussion):

(42) *Kim [$_{TP}$ T$_{[NOM]/EPP}$ **[$_{VoiceP}$** was [$_{vP}$ seen **[$_{VoiceP}$** Voice [$_{vP}$ ~~Kim~~ … sing]

If the embedded infinitive introduces a TP, however, there is an intermediate landing site for the embedded argument and, thus, only one phase head must be crossed. Sheehan & Cyrino 2018, 2022, argue that the embedded T head with an EPP feature of a non-finite clause can therefore 'feed' further A-movement into the matrix clause:

(43) (Graph built on Sheehan & Cyrino 2022)



In (43), A-movement of 'she' to the embedded Spec,TP makes further movement into the matrix Spec,TP position possible given that each movement leads the pronoun 'she' to only cross one phase head at a time, on its way to the matrix clause, preventing a violation of PIC2.

In the next section, we will have a look at how this approach can explain some properties of PRs, infinitives, and gerunds in the complement of perception verbs in Spanish.

3.2 *Deriving PRs, infinitives, and gerunds: their phasal status and structural integration*

In the previous section, we have seen that Sheehan & Cyrino's 2018, 2022, analysis of the contrast between raising out of bare and raising out of TP infinitives crucially relies on Chomsky's 2001 PIC2 and on the assumption that VoiceP above *v*P is a phase. In this section, we argue that this approach can also explain the nature of gerunds, infinitives and pseudo-relatives with perception verbs in Spanish.

3.2.1 PRs

Considering Chomsky's 2001 PIC2 in the context of Spanish PRs, we observe that material inside Spec,TP of an embedded PR should still be accessible to operations inside the matrix domain until the matrix phase head Voice is merged, even if CP is a (weak) phase, given that only one phase head would be crossed:

(44) … [$_{VoiceP}$ Vio [$_{vP}$ ~~vio~~ [$_{VP}$ ~~vio~~ [$_{CP}$ C-que [$_{TP}$ **María** T-bailaba [$_{vP}$ ~~María~~ *v*-~~bailaba~~ [$_{VP}$ …

domain accessible for A-movement of 'María'

According to PIC 2, phase theory does not block A-movement of an embedded subject in Spec,TP (= *María*) into the matrix *vP* domain. This opens the possibility of assuming finite subject-to-object raising in Spanish pseudo-relatives (see Herbeck 2020):

(45) [$_{TP}$ Vi-T [$_{VoiceP}$ ~~vi~~ [$_{vP}$ **a María** [$_{vP}$ Ø ~~vi~~ [$_{VP}$ ~~vi~~ [$_{CP}$ que-C$_{def}$ [$_{TP}$ ~~**María**~~ cantaba-T …

We would therefore expect long passives to be grammatical in PRs. However, recall that long passives show the lowest acceptability ratings between PRs, gerunds and infinitives: Most speakers judge them ungrammatical with PRs (mean acceptability: 1.90; median: 1), while

gerunds receive almost full acceptability (mean acceptability: 4.52; median: 5), and there is interspeaker variation with infinitives (mean acceptability: 2.76; median: 3).

We would like to argue that these patterns can be explained by means of (i) the different structural 'size' of the (un-)inflected complement, (ii) its correlated phasal status, and (iii) the mechanism of its integration into the matrix clause. Let us start with (i): There is sufficient evidence that PRs project a VoiceP as well as a TP: as we saw in section 2.4, even though there is variation, short passives are accepted by most speakers (mean 3.85; median 4) indicating that a VoiceP is available. Furthermore, PRs are inflected for tense and phi-features, which constitutes morphological evidence for the projection of AGR/TP. We also saw that embedded negation is accepted by all linguist informants we consulted (see (23)) and that the ban against negation in some examples is of a semantic nature, but not excluded by syntax. However, if these structures projected just a TP, long passives would be predicted to be possible: Spec,TP introduces an additional A-position, which feeds further A-movement into the matrix clause, as in the case of *to*-infinitives in English.

We suggest that the solution lies in (ii) the (weak) phasal status of PR clauses. First, PRs introduce a complementizer *que* 'that' and, as we have seen in section 0, even though left peripheral operations such as Clitic Left Dislocation are more marginal in PRs than in fully finite CP complements, they are accepted by most informants. This indicates that at least a defective CP is projected, which introduces an A'-position:

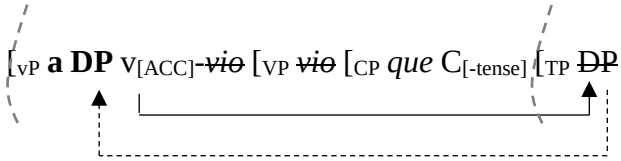
(46) V [$_{CP}$ C$_{def}$ *que* [$_{TP}$ T …

The possibility of CLLD below the complementizer is not problematic if left peripheral fronting operations can target a low topic position (see Rizzi 1997, Haegeman 2004) or Spec,FP (in the sense of Uriagereka 1995, Gallego 2010) in Spanish:

(47) V [$_{CP}$ C$_{def}$ *que* [$_{TopP}$ CLLD Top [$_{TP}$ T [$_{VoiceP}$ Voice [$_{vP}$ __ v [$_{VP}$ V]]]]]]

However, even though there is evidence for the projection of a phasal CP, this projection must be defective with respect to its feature specification:[19] We have seen in section 0 that PRs, even though having morphological tense and phi-specifications, do not have fully specified Tense, i.e. tense specifications must at least partially be anaphoric to the matrix tense. This indicates that embedded PRs do not sanction a full, external logophoric centre in the C-domain (in the sense of Bianchi 2003), being responsible for external, deictic anchoring of tense (see Herbeck 2020 for Spanish PRs). If the external logophoric centre is responsible for nominative Case assignment (cf. Bianchi 2003) and this is absent in PRs, it follows that embedded subjects in Spec,TP are still 'active' for further A-movement if phase theory doesn't block it. As outlined above, the fact that the embedded T-head does not deactivate the subject for further movement together with PIC2 gives rise to the possibility of finite subject-to-object raising operations in Spanish PRs into the matrix VP/*v*P domain, i.e., when the matrix verb has active voice:

(48) …[$_{VoiceP}$ *Vio* [$_{vP}$ **a DP** v$_{[ACC]}$-~~*vio*~~ [$_{VP}$ ~~*vio*~~ [$_{CP}$ *que* C$_{[-tense]}$ [$_{TP}$ ~~DP~~ T$_{[φ:+]/[-Case]}$ [$_{VoiceP}$ [$_{vP}$ ~~DP~~…

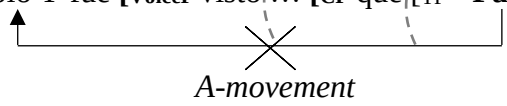


However, while finite subject-to-object movement into Spec,*v*P in terms of A-movement is unproblematic, finite subject-to-subject movement into the matrix Spec,TP position *is* blocked

[19] An alternative solution would be that PRs are ForcePs, but that their ForceP is in some way 'impoverished', as proposed by Casalicchio 2016 for Italian. If we adopt this solution, the explanation for the ungrammaticality of long passives does not change.

by PIC2: by the moment the matrix Voice is introduced, the embedded Spec,TP becomes unavailable for nominative Case and phi-feature *Agree* with the matrix T head:[20]

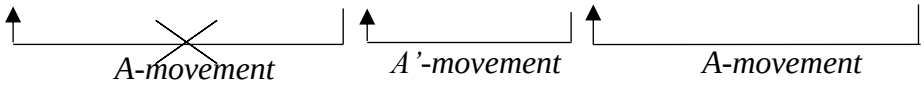
(49) *[$_{TP}$ Pablo T-fue **[$_{VoiceP}$** visto… **[$_{CP}$** que [$_{TP}$ **<Pablo>** T-leía [$_{VoiceP}$ [$_{vP}$ ~~<Pablo>~~…]]]]



Here, matrix T cannot probe the subject in the embedded Spec,TP because two phase boundaries – VoiceP and CP would have to be crossed.[21]

There would be one potential solution to circumvent the PIC2: to use Spec,CP as escape hatch. However, this would be A'-movement, and as consequence, long passivization would yield Improper Movement (A-to-A'-to-A):

(50) *[$_{TP}$ Pablo [$_{VoiceP}$ fue visto **[$_{CP}$** <Pablo> que [$_{TP}$ **<Pablo>** T-leía [$_{VoiceP}$ [$_{vP}$ <Pablo>…



In addition, there is another option that we have to consider: (iii) the PR *que*-clause could be analyzed as an adjunct and a passivized subject could originate in the matrix internal argument position (as argued by Di Tullio 1998 for gerunds; see below). However, extensive discussion

[20] In this aspect, the analysis differs from Herbeck 2020, where CP was argued not to be a strong phase, but a weak one, building on PIC1.

[21] Note that intermediate movement of the external argument of the embedded clause from Spec,TP into matrix Spec,*v*P is not motivated in long passive structures given the absorption of accusative Case in the matrix clause. Thus, matrix *v* (or AgrO) cannot function as a Probe attracting the embedded DP to an intermediate A-position. This way, there are only two options: (i) direct movement to matrix Spec,TP, which would yield a violation of PIC2 or (ii) A'-movement via Spec,CP, yielding Improper Movement.

on PRs has shown that they are not adjuncts, as demonstrated by constituency tests applied by Campos 1994 and Rafel 1999:

(51) Lo que vi fue [a María que abrazaba a Juan].
what saw.1SG was DOM María that embraced.3SG DOM Juan
(Campos 1994: 220 n. 36)

(52) A: *¿Qué es lo que viste que estás tan nervioso?*
B: A Marta que asaltaba un banco.
DOM Marta that robbed.3SG a bank
'What have you seen that you are so nervous? B: Marta robbing a bank.'
(Adapted from Campos 1994: 219)

Sentence (51) shows that the accusative marked DP can be clefted together with the PR clause and (52) shows that they can occur as answer to a *wh*-interrogative. This indicates that the accusative DP plus *que* clause form one constituent at least at some point of the derivation.

Thus, PIC2 together with the assumption that PRs are weak (defective) CP phases, which introduce an A'-position but do not deactivate their subjects, correctly predicts that in Spanish 'finite subject-to-object raising' is possible (PRs), but not 'finite subject-to-subject raising' (long passivization).[22]

[22] Another prediction of an approach in terms of PIC2 is that the subject of an embedded PR can undergo A-movement into the matrix accusative position, but embedded objects should not be able to undergo finite 'object-to-object' raising in Spanish (unless there is a resumptive object clitic), because the moved object would cross two phases (the embedded *v*P/VoiceP and the defective embedded CP). This is in fact what has been observed extensively in the literature on PRs, namely that there are subject-object asymmetries (in contrast to true relative clauses), see Herbeck & Casalicchio 2023. An anonymous reviewer points out that a derivation, in which the embedded object moves to Spec,CP would be possible, contrary to the ungrammaticality of the following sentence:

(i) *Vi [$_{CP}$ a Juan$_i$ que María pegaba t$_i$]
saw.1SG DOM Juan that María hit.IMPF.3SG
'I saw Mary beating Juan'

One further prediction of our approach is that the embedded subject can also be A'-moved out of PRs into the matrix clause, since this would constitute A-A'-movement. This prediction seems to be confirmed in the light of the following examples from our CORPES XXI search:

(53) **a él lo** vieron que se lo llevaba
DOM him him.CL saw.3PL that REFL it took.3SG-away
'They say him taking it away.'
(CORPES XXI, México, written)

(54) y **a la mujer la** veo que iba espeta perro
and DOM the woman her see.1SG that went.3SG very-fast
'I saw the woman walking very fast.'
(CORPES XXI, México, written)

(55) **A Forlín lo** veía que venía jugando muy bien
DOM Forlín him saw.1SG that came.3SG play.GER very well
'I saw that Forlín was playing very well.'
(CORPES XXI, Argentina, written)

Note that a structure like (i) is reminiscent of clitic left dislocation structures: however, since left dislocation in Spanish requires clitic resumption, we expect a clitic to be obligatory in configurations like (i) as well: and this is exactly what happens, as (ii) shows (see Campos 1994, Aldama García 2018, Herbeck 2020, Herbeck & Casalicchio 2023):

(ii) Lo vi que *(lo) arrestaban.
him saw.1SG that him arrested.IMPF.3PL
'I saw how he was arrested.'
(Campos 1994: 235; translations added)

Even though A-movement within the matrix *v*P is predicted to be possible, the movement of the subject to the left periphery in (53) – (55) can only be the result of cyclic A'-movement, using Spec,CP as an escape hatch.

In the next section, we have a look at how gerunds can be explained in this approach.

3.2.2 Gerunds

There is strong evidence that gerunds do not project a CP nor a TP: Gerunds are not introduced by complementizers, they do not have phi- or tense specifications, and they block CLLD for most speakers (see (20)), unlike PRs. Furthermore, none of our linguist informants allows negation with gerunds (Q7; see (29)). On the other hand, gerunds project a VoiceP that can be marked as passive and active for most speakers (mean acceptance of embedded passives 3.43; median: 3.5). In addition, they carry an aspectual reading that led Di Tullio 1998 and Casalicchio 2019 to interpret them as AspPs; more precisely, comparing them to prepositional infinitives in European Portuguese, Casalicchio argues that the verb moves to Asp where it incorporates an abstract preposition of central coincidence (Hale 1986) that gives the gerund a progressive aspectual reading (see also Gallego 2013 and Gallego & Hernanz 2012 on adverbial gerunds incorporating a preposition). Regarding the accusative DP, both authors claim that it can either be merged in the embedded clause (56a), or in the main clause, yielding a control structure in which the embedded clause has the function of a secondary predicate (56b):

(56) Gerund:

a. Vi [$_{AspP}$ a María *cantar*+P [$_{VP}$ María V-~~*cantar*~~]]

b. Vi a Maria$_i$ [$_{AspP}$ PRO$_i$ *cantar*+P [$_{VP}$ V-~~*cantar*~~]]

(Adapted from Casalicchio 2019: 83, 90)

Thus, gerunds have at least one derivation in which passivization of the matrix verb is predicted to be possible: in (56b), the antecedent is merged in the matrix clause and, therefore, what looks

like a long passive is actually a ‘short passive’ in the matrix clause. Short passives are unproblematic in full matrix clauses, independently of the phasehood of the gerundive clause:

(57) [$_{TP}$ La actriz$_i$ T$_{EPP}$-fue [$_{VoiceP}$ ~~fue~~ [[$_{vP}$ v [$_{VP}$ ~~la actriz~~ vista-V]]]] [$_{VoiceP}$ PRO$_i$ comiendo en un restaurante berlinés]]

Further evidence for the structure in (56b) comes from the possibility of coordination of a gerund with a depictive AP (see Di Tullio 1998: 202):

(58) Vi a Juan [muy tranquilo] y [sonriendo].
saw.1SG DOM Juan very quiet and smile.GER
(Di Tullio 1998: 202)

Thus, the possibility of passives with gerunds is independent of the PIC2, given that a Small Clause analysis of gerunds is independently available, in which the internal argument of the perception verb is not the clause, but the DP. This DP can be passivized just as any internal argument of a main clause.

3.2.3 Infinitives

Turning to infinitives, we first have to exclude that they can be secondary predicates like gerunds. Evidence for this is discussed in Di Tullio 1998 and Casalicchio 2019, where it is shown that gerunds and infinitives differ both in semantics and in syntax. With respect to their semantics, gerunds focus on the perception of an individual that is involved in an action; infinitives on the event as a whole. Syntactically, this is reflected in the fact that gerunds require an overt DP antecedent, while infinitives do not (cf. Di Tullio 1998; see also Casalicchio 2019 for discussion):

(59) a. Esta tarde vi {llover/ *lloviendo}.
this afternoon saw.1SG rain.INF rain.GER
'This afternoon I saw it rain(ing).'
(Di Tullio 1998: 203)

b. Oigo *(al niño) llorando. / Oigo (al niño) llorar.
hear.1SG DOM-the child cry.GER hear.1SG DOM-the child cry.INF
'I hear the child crying; I hear the child/somebody cry.'

In addition, coordination with a depictive AP is impossible (compare (60) with (58)):

(60) *Vi a Juan [muy tranquilo] y [sonreír].
saw.1SG DOM Juan very calm and smile.INF
(Di Tullio 1998: 202 n. 8)

This suggests that infinitives are not Small Clauses, differently from gerunds, which also explains why they do not allow matrix passives as readily as gerunds: in the case of infinitives, matrix passives are indeed 'long', while they are only apparently 'long' in the case of gerunds. However, the mean acceptability of long passives with infinitives (mean: 2.76; median: 3) is not as low as with PRs (mean: 1.90; median: 1). Since infinitives are complements of the perception verb, long passives should either be possible (if they project a TP, providing an intermediate A-position), or they should be ruled out (if they only project a VoiceP, so that long passivization would involve two VoiceP phase boundaries, see above). Thus, the question is whether there is evidence for the status of infinitival complements of *ver* 'see' as VoiceP or TP in Spanish.

The results of the AJT concerning the grammaticality of modal verbs does not provide us with conclusive evidence: here we find variation in the speakers' judgements (see (31)-(32); *tener que*: 2.47; *querer*: 4.21) as well, just as we find it in long passives. The impossibility of CLLD in infinitives is not conclusive either (19), given that it is only evidence for the lack of a left peripheral CP. Note, furthermore, that Spanish cannot give us any morphological clues with

respect to the difference between a radically reduced bare infinitive (in VoiceP) and a TP-infinitive, given that morphological markings like *to* in English or *zu* in German are lacking, both infinitives being morphologically marked by means of the *-r* suffix in Spanish (cf. (61) with (62)):

(61) a. Vi / hice a María llorar.
saw.1SG made.1SG DOM María cry.INF

b. María parece llorar.
María seems cry.INF

c. María promete no llorar.
María promises not cry.INF

(62) a. I saw/made Mary cry.

b. Mary seemed to cry.

c. Mary promised not to cry.

We think that this ambiguity of infinitives in Spanish is key to understanding the varying results in the judgements on long passives: Since reduced and full infinitival complements are not distinguished morphologically in Spanish, it is expected that there is variation and that speakers might assign one or the other structure to the clausal complement:

(63) Infinitives:

Speaker A: Vi [$_{TP}$ a Juan T-*cantar* [$_{VoiceP}$ ~~Juan~~ Voice-~~*cantar*~~ [$_{VP}$ …]]

Speaker B: Vi [$_{VoiceP}$ a Juan Voice-*cantar* [$_{VP}$ …]]

Even though this reasoning is *a priori* plausible, the question is whether empirical evidence can be provided. Some preliminary evidence comes from negation: in our questionnaire with 7 linguist informants (Q7), the informants that accepted long passives all accepted negation as well (see Table 3).

		S1	S2	S3	S4	S5	S6	S7
negation	*(A mi hermana, normalmente no le gusta la fiesta) Pero* ***anoche la vi no parar*** *de bailar.*	*	*	?	?	ok	ok	ok
long passive	*La actriz* ***fue vista llorar*** *en un restaurante berlinés.*	*	*	*	?	?	?	ok

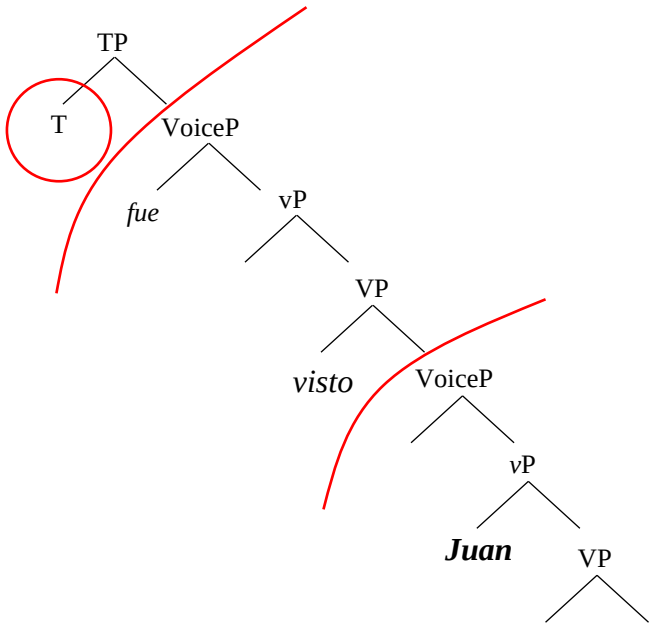
Table 3: Judgments of Q7 regarding negation and long passives with infinitival complements of *ver* 'see' (*S1, S2, ...* = Speaker1, Speaker2, …)

Furthermore, if we look more closely at the individual ratings of the acceptability of our 75 informants in the online AJT (Table 1), we observe a tendentially bimodal distribution of the ratings: the majority of our informants rated the sentences either as ungrammatical (=1) or grammatical (= 5), with only 15% of the speakers judging it marginal (= 3). We can reformulate the result of the AJT in a more precise way: it is not the case that the long passive sentence was unanimously judged marginal by the speakers, but there is in fact considerable variation between speakers with respect to the acceptability of this structure. This is further reinforced by the observation that the SD is highest in this configuration (SD = 1.55).

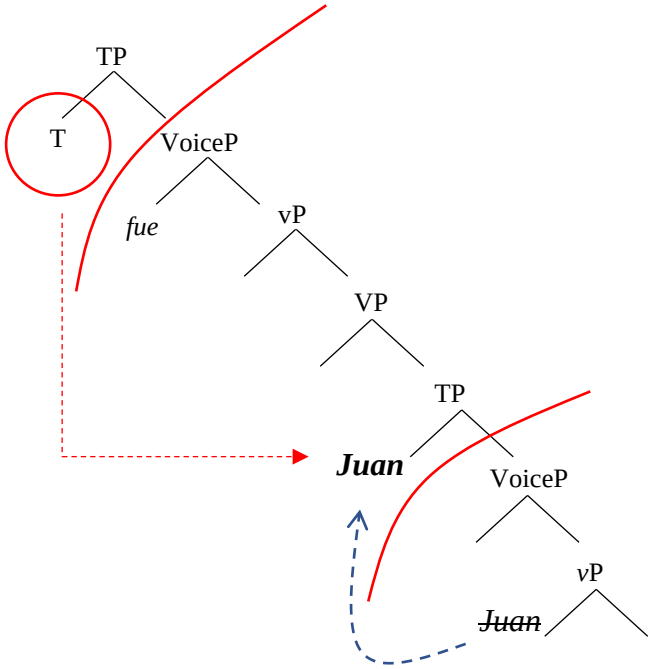
If there is indeed variation between speakers assigning a VoiceP or a TP structure to the infinitival complement of perception verbs, the variation in acceptability straightforwardly follows from Sheehan & Cyrino's 2018 approach in terms of Chomsky's 2001 PIC2:

(64) *%María fue vista llorar en un restaurante berlinés*.

A) speakers that do not allow 'long passives': **bare VoiceP infinitive**



B) speakers that accept long passives: the **infinitive projects a TP**



Inter-speaker variation in the acceptability of long passives out of infinitives with perception verbs is thus due to (i) structural ambiguity of Spanish infinitives between VoiceP and TP, possibly influenced by a lack of a morphological clue to distinguish the two structures and,

relatedly, (ii) the projection (or not) of Spec,TP which provides an intermediate landing site for further A-movement into the matrix Spec,TP position, following Sheehan & Cyrino's 2018 approach.

3.3 *Summary*

Although PRs, gerunds and infinitives all occur with perception verbs, they display radically different structures: PRs are defective CPs – they lack an external logophoric centre and, thus, deictic tense, person, and nominative Case. This way, the subject remains active but cannot A-move any further than the matrix *v*P domain, giving rise to raising-to-object and blocking long passives. In the case of gerunds, long passives are just a superficial effect: since they are (at least in one configuration) secondary predicates, the DP is first merged as an internal argument of the matrix verb, from where it can be promoted to the structural subject position like any internal argument of a transitive verb. Finally, infinitives show the highest degree of variation. We have argued that they can be assigned two structures: the majority of speakers assigns infinitives a bare VoiceP structure and, thus, long passives are ruled out by PIC2. For a subset of speakers, however, infinitives as complements of *ver* 'see' are TPs. For these speakers, the embedded Spec,TP provides an intermediate A-position from which the subject can undergo further A-movement into the matrix Spec,TP position. In this derivation, long passives are possible because A-movement only crosses the matrix VoiceP phase, without violating the PIC2.

In the next section, we will discuss some Italian and European Portuguese ('EP') data and show that our approach, apart from inter-speaker variation, can also account for the existence of cross-linguistic variation between closely related Romance languages.

4 An issue for future research: Cross-linguistic data from Romance

We have seen that the property of allowing long passives is a crucial factor to individuate the structure underlying PRs, gerunds and infinitives. In particular, long passives are out with PRs, while they are possible with gerunds. Finally, there is inter-speaker variation with infinitives, as we have seen. In this section, we sketch some differences between the relevant structures in Spanish, on the one hand, Italian and EP, on the other (see Casalicchio & Herbeck 2023 for further discussion and data, Casalicchio & Sheehan 2021, 2023, and Sheehan 2023b for a more detailed analysis of infinitival complements in Italian and in EP, respectively).

4.1 *Complements of perception verbs in Italian*

If we take a comparative perspective with another Romance null subject language, Italian, the Spanish pattern is not replicated. Italian also has PRs and infinitives in perception constructions (see Cinque 1992, Guasti 1993, Casalicchio 2013, 2016, Grillo & Moulton 2016, Graffi 2017 and references therein):

(65) Ho visto Gianni che correva. Italian
have.1SG seen Gianni that ran.3SG
'I have seen Gianni running.'

But, unlike Spanish, both PRs (Cinque 1992) and infinitives (Guasti 1993) allow long passives:[23]

(66) Gianni è stato visto che correva a tutta velocità.
Gianni is been seen that ran.3SG at all speed
'Gianni was seen running at full speed.'
(Cinque 1992: 11)

[23] For a more fine-grained view on the acceptability of long passives of infinitives in Italian, see Casalicchio & Sheehan 2021, 2023.

(67) Gianni è stato visto riparare la macchina.
Gianni is been seen repair.INF the car
'Gianni was seen repairing the car.'
(Guasti 1993: 137)

First, as far as Italian PRs are concerned, there is good evidence to consider them as a correspondent not to Spanish PRs, but to Spanish gerunds. Casalicchio 2013 shows that Italian PRs and Spanish gerunds have exactly the same distribution and the same syntactic behaviour in a number of tests.[24] In addition, Cinque 1992 and Casalicchio 2013, 2016 propose that three different structures can underlie Italian PRs. In two of them, the embedded subject is located within the embedded clause, while in the third it is merged in the matrix clause, from where it controls a PRO subject in the PR. It is exactly this last structure that allows long passives, just like Spanish gerunds (cf. (68) with (56b)):

(68) Ho visto Gianni$_i$ [PRO$_i$ che correva]
I.have seen Gianni that ran.3SG
(Casalicchio 2016: 40; simplified)

Thus, Italian PRs can have an underlying structure with the accusative DP as an internal argument of the matrix perception verb and the PR as a small clause predicate; a possibility that is excluded in Spanish PRs, but possible in Spanish gerunds.[25]

So, apparently long passives in Italian PR structures are in fact 'short' passives, exactly as in the case of Spanish gerunds (cf. (69) with (57)):

[24] Italian PRs and Spanish gerunds have the same distribution, as they can occur with perception verbs, but also, for example, with other types of verbs (e.g. *sorprendere/sorprender* 'catch', *(non) sopportare/(no) soportar* '(not) stand', *mangiare/comer* 'eat'), in presentative sentences and in locative sentences. See Casalicchio 2013 for more details.

[25] Casalicchio 2013 explicitly compares Italian PRs to Spanish gerunds (and to EP prepositional infinitives, see above), claiming that *mutatis mutandis* they have exactly the same three structures.

(69) [Gianni$_i$] è stato visto [~~Gianni~~$_i$] [PRO$_i$ che correva].

Gianni is been seen Gianni that ran.3SG

'Gianni was seen running very fast.'

To understand where these differences between Spanish and Italian may stem from, we would like to point out another difference between the two languages: gerunds cannot occur in Small Clauses relating to a matrix object in Italian, unlike in Spanish. Thus, in (70a) the only possible interpretation is that Maria (the subject) is the person singing, while in Spanish both interpretations are possible (although the Small Clause reading is preferred), compare (70a) with (70b):

(70) a. Maria$_i$ ha visto Paolo$_j$ PRO$_{i/*j}$ cantando

Maria has seen Paolo sing.GER

'Maria saw Paolo while she was singing.'

b. María$_i$ ha visto a Pablo$_j$ PRO$_{i/j}$ cantando.

Maria has seen DOM Pablo sing.GER

'Maria saw Pablo singing/while she was singing.'

Therefore, neither Italian PRs nor gerunds are fully comparable to Spanish: Italian PRs can have three different structures, which are all available in a basic sentence like (65): a complement clause with the accusative DP merged in the left periphery of the embedded clause (ForceP for Italian, see Casalicchio 2016), a Small Clause structure in which the *che*-clause is not in the position of the internal argument of the matrix verb, and a complex DP which hosts the PR as modifier of the nominal head. Apparently 'long' passives are possible in one of the three structures, namely, when the PR functions as a Small Clause in non-argument position

(see (69)), exactly because in this structure, passives are in fact 'short'.[26] This configuration, on the other hand, is fulfilled by gerunds in Spanish, while PRs lack this option:

Spanish	**Italian**
PR / Gerund	PR
Infinitive	Infinitive

Thus, cross-linguistic differences between Italian and Spanish PRs and gerunds stem from the distribution of gerunds and PRs in Small Clauses.

Finally, as far as infinitives are concerned (67), the fact that Italian speakers unanimously accept long passives seems to be evidence for the fact that all speakers assign it a TP structure (see Casalicchio & Sheehan 2021, 2023 for a detailed analysis).

4.2 *European Portuguese*

In EP, complements of perception verbs have an option that is not available in Italian or Spanish: beside a full CP complement, an infinitive, and a configuration similar to the Spanish and Italian pseudo-relatives, EP allows prepositional infinitives (see Raposo 1989, Casalicchio 2019).[27] Even though a full study of the different complements of perception verbs in EP is beyond the scope of the current paper, some notes will be offered in order to discuss whether

[26] We may speculate that this threefold structure of PRs is due to the fact that gerunds cannot be used in perception complements in Italian (but they could in Old Italian), so that PRs may have inherited this property from gerunds. An account of the diachronic evolution of Italian gerunds and PRs is beyond the scope of this paper.

[27] Brito 1995: 33 also discusses gerunds, but these are generally found in Brazilian Portuguese and Southern Portugal varieties only, where they are used instead of prepositional infinitives (Casalicchio 2019).

PRs are comparable to the Italian or the Spanish ones, based on Brito's 1995 extensive study of EP PRs.

In EP, PRs are similar to both Italian and Spanish in that they display subject-object asymmetries, anaphoric phi-features and dependent tense, as well as direct perception readings (Brito 1995), see (71). On the other hand, they share with Spanish, but not with Italian, the impossibility of long passives (72):

(71) Vejo o teu filho que está a chorar. European Portuguese
see.1SG the your son that is to cry.INF
'I see your son crying.'
(Brito 1995: 33)

(72) *O teu filho foi visto que está / estaba a chorar.
the your son was seen that is was to cry.INF
'Your son was seen crying.'
(Brito 1995: 47)

This might lead one to assume that PRs are similar to Spanish, and different from Italian: as we have seen, Italian allows long passivization, in contrast to Spanish and EP (see (69)). However, there is evidence that Portuguese PRs cannot be collapsed with Spanish either, because in EP PRs do not allow the subject of the embedded verb to be cliticized (cf. (73) with (71)):[28]

[28] Brito 1995 discusses two further configurations that resemble PRs: "presentative" sentences (i) and what the author calls "independent" sentences (ii):

(i) a. Eis o Pedro que chega finalmente.
eis the Pedro that arrives finally
'Look, Pedro is finally arriving!'

(73) *Vi-o que estaba a chorar.
saw.1SG-him.CL that was to cry.INF
'I saw him crying.'
(Brito 1995: 47)

Thus, neither a raising-to-object analysis (as in Spanish) nor a secondary predicate analysis (as in Italian) can be applied to European Portuguese PRs. Brito 1995 argues that PRs in this language are in fact headed by a nominal projection in which a tense defective CP (i.e. a C head

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b. É / Há o teu filho que desatou a chorar.
is there.is the your son that started.3SG to cry.INF
'Your son started crying.'
(Brito 1995:26)

(ii) E eu que não consigo deixar de fumar!
and I that not am.able stop to smoke.INF
'And then me, unable to stop smoking!'
(Brito 1995:26)

These configurations share with PRs the properties of temporal deficiency and subject-object asymmetries. Thus, a small clause or raising analysis could potentially be applied to these sentences in that the clause introduced by *que* 'that' would not contain an external logophoric centre and movement out of the inflected clause would potentially be available. Note that Suñer 1984, Brucart 1999, Casalicchio 2013 and Herbeck 2020 also discuss some structures in Spanish that are similar to PRs and could potentially be dealt with in terms of finite raising or a small clause analysis:

(iii) Los hay que no trabajan.
them there-is that not work.3PL
'There are some that aren't working.'
(Suñer 1984:255)

Given the focus of the present paper, we leave an in-depth study to future investigation. However, at least with respect to Spanish, data from Brucart 1999 offer some first indication that the structures cannot fully be collapsed with PRs that are used with perception verbs (see also Herbeck 2020 for further discussion).

with dependent tense) is embedded. In our current framework, her analysis could be represented as follows ((74) based on Brito 1995: 46 ff.):[29]

(74) *Vejo* [$_{DP}$ *o teu filho* [$_{CP}$ *que* C$_{[-Tense]}$ [$_{TP}$ *está a chorar* ...]]]

This way, PRs are similar to relative clauses in being nominal, but different in having a CP with dependent (and not independent) tense. In our current framework, it could be assumed that the PR is headed by a D-head which embeds a C_{def} projection, containing only an internal, but not an external logophoric centre.

In Brito's 1995 approach, (72) as well as (73) are ruled out because it is the full complex DP that is assigned a theta-role by the matrix V and is selected as its object. In the current *Agree*-based approach, this can be implemented by assuming that the full complex DP is a closer Goal to nominative or accusative Case-*Agree* with matrix T or *v*, *o teu filho* being too deeply embedded inside the complex DP:

(75) [$_{TP}$ T$_{[NOM]}$ [$_{vP}$ *v*$_{[ACC]}$ *Vejo* **[$_{DP}$ [$_{DP}$** *o teu filho*] [$_{CP}$ *que* C$_{[-Tense]}$ [$_{TP}$ *está a chorar* ...]]]

This way, PRs in EP are not fully comparable to Italian or Spanish PRs because neither raising to object nor raising to subject is possible. If Brito's 1995 analysis is on the right track, this is due to an underlying complex DP/NP-structure of the complement clause of the perception verb.

[29] The analysis of PRs as complex NPs had already been proposed for PRs in Italian, starting from Graffi 1980.

Note, however, that several functions that are fulfilled by PRs in Spanish and Italian are fulfilled by prepositional infinitives in EP: this construction allows both long passives and cliticization of the embedded subject (Brito 1995: 47, Duarte & Gonçalves 2002):

(76) Long passives:

Os meninos foram vistos a devorar o gelado.
the children were seen to devour.INF the ice-cream
'The children were seen devouring the ice-cream.'
(Duarte & Gonçalves 2002: 168)

This is in line with the accounts that compare prepositional infinitives in EP to Italian PRs and Spanish gerunds (Fernandes 2012, cited in Costa et al. 2016, Casalicchio 2013, Costa et al. 2016, Casalicchio 2019). Therefore, we might presume that (76) is grammatical because the prepositional infinitive has a Small clause analysis (see Raposo 1989), with *o teu filho* as matrix object and the PR as adjunct with a PRO subject.[30]

Future research will hopefully shade more light on the correlation between different types of inflected and non-inflected complements in Italian, Portuguese and Spanish, applying the tests used in the present paper systematically on a cross-linguistic basis.

5 Conclusions

In this paper, we have offered a contrastive analysis of PRs, gerunds and infinitives as complements of the perception verb *ver* 'see' in Spanish. Even though these configurations have been dealt with on a separate basis before, we have aimed at providing a detailed comparison of the three configurations. Furthermore, for some phenomena that have not been

[30] Note that prepositional infinitives are out when they are inflected (Duarte & Gonçalves 2002: 168). In the case of bare infinitives, on the other hand, passives are only considered grammatical by a subset of speakers, and only in a clause union construction (and with restrictions), see Sheehan 2023b).

addressed in detail in previous literature, but which are crucial for the structure underlying them, such as long and short passives and embedded modal verbs, new data has been provided to offer new insights into the analysis of the respective configurations.

The AJT has revealed the strongest contrasts between the three structures in the availability of matrix (long) passives: pseudo-relatives block long passives, gerunds allow them, and infinitives show inter-speaker variation. We have argued that gerunds do in fact not license long passives, but they are Small Clauses in non-argument position; thus matrix passives are always short. Pseudo-relatives, on the other hand, are complements which project a feature defective CP – a weak phase which introduces an A'-position but, given the lack of deictic anchors in C (an external logophoric centre; Bianchi 2003), structural nominative Case is not assigned and the subject position is active for further movement. This situation gives rise to the availability of finite subject-to-object raising, but blocks subject-to-subject raising, i.e. long passives. Building on Sheehan & Cyrino's 2018 implementation of Chomsky's 2001 PIC2, the embedded subject of a PR would have to cross two phases on its way to matrix Spec,TP – CP and matrix VoiceP – so that PIC2 is violated. Subject-to-object raising is possible, with the subject crossing only one CP phase boundary, respecting PIC2 and giving rise to the PR configuration in Spanish.

This approach can also account for the behavior of infinitives, which show inter-speaker variation, both with respect to negation and long passives: Given the absence of morphological clues, infinitives are structurally ambiguous between a VoiceP and a TP structure. The prediction is that speakers assigning the former will not allow long passives or negation, while speakers assigning the latter will.

This approach is also capable of explaining several differences regarding PRs and gerunds with perception verbs between Spanish and the closely related language Italian: PRs in the latter language do allow long passives. We have argued that this is because Italian PRs have a

derivation similar to Spanish gerunds – namely, as SC predicates. At the same time, Italian gerunds cannot fulfil this function, differently from Spanish.

An account of the differences and similarities between infinitives, gerunds and PRs with perception verbs in Romance languages must thus consider the morpho-syntactic properties of the extended verbal projection, different clausal 'sizes', and general configurational properties in terms of clausal embedding and integration.

Future research will hopefully reveal further properties of the nature of the syntax of Romance perception verbs by analyzing more data on a micro-comparative level.

Data Availability Statement

The corpus data that support the findings of this study are available in CORPES XXI (Real Academia Española, Corpus del Español del Siglo XXI) at https://www.rae.es/corpes. The data based on native speakers judgements are available from the corresponding author upon reasonable request.

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