A Note on the Infinitival Complements of Perception Verbs[*]

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1. Introduction

In English, there is a long-standing mystery regarding passivization of the subject of the bare infinitival complement of perception verbs.[1]

(1)   I saw John walk across the street.
(2)   *John was seen walk across the street.
(3)   John was seen to walk across the street.

Although perception verbs take bare infinitival complements in active sentences (1), the embedded subject cannot be passivized (2). If *to* is added, however, the sentences become grammatical (3). This is unique to passivization,[2] since the insertion of *to* is not required with other types of movement.[3]

(4) a.   *Wh*-movement
        ?Who did you see steal the wallet?   (Basilico (2003: 18))
     b.   Heavy NP Shift
        I saw (*to) walk across the street a man with a big blue suitcase.   (Ishihara (1998: 61))
     c.   Topicalization
        His sister, John saw (*to) walk across the street.   (Ishihara (1998: 62))

The ungrammaticality of (2) cannot be attributed to some semantic anomaly, because it is possible to passivize the subject of the bare infinitival complement of perception verbs in Italian.

(5)   Gianni è stato visto rubare la macchina.
        'Jean has been seen to steal the car.'   (Guasti (1992: 221))

[*1] The infinitival complements of perception verbs and those of causative verbs behave in the same way with respect to passivization of the embedded subject in English, but in Romance languages, they behave differently. In this note, I will focus on perception verb complements.
[2] In Ishihara (1998) and Basilico (2003), (3) is related to the occurrence of *to* in Raising constructions, but unlike perception verbs, which select an event argument, raising predicates select a propositional argument, which is typically realized as TPs. Thus the appearance of *to* in the complement of passive perception verbs deserves special attention independently of the appearance of *to* in Raising constructions.
[3] Basilico (2003) notes that even though (4a) shows some decrease in acceptability, it is much better than its passivized counterpart (i).
(i)   *Who was seen steal the wallet?   (Basilico (2003: 18))

Various proposals have been made to explain the ungrammaticality of (2). In this note, I will examine an account recently offered by Hornstein, Martins and Nunes (2008), and briefly discuss Bennis and Hoekstra's (1989) analysis as an alternative.

2. Hornstein, Martins and Nunes's (2008) analysis: Case Feature on the Infinitival Head

Hornstein, Martins and Nunes (2008) propose that the infinitival complements of perception/causative verbs in English and European Portuguese are headed by T whose features consist of EPP, Case and number. Basing their analysis on Chomsky's (2000, 2001) agreement mechanism, they demonstrate that while the active sentences as in (1) can be derived without any problems, their passive counterparts as in (2) cannot be derived successfully due to the intervening participial head. To illustrate, let us first look at the derivation of the active sentence (6).

(6)   I saw Mary leave.

(7) $[_{vP}$ $v_{[P:u]/[N:u]}$ saw $[_{TP}$ Mary$_{[P:3]/[G:FEM]/[N:SG]/[Case:u]}$ $[_{T'}$ T$_{[N:SG]/[Case:u]/EPP}$ $[_{VP}$ t leave$]]]]$

(Hornstein, Martins and Nunes (2008: 209))

When the derivation reaches the stage shown in (7), both *Mary* and the infinitival T need to have their Case feature valued by the matrix v. Since they are equidistant from v, either element can enter into the agreement relation with it. When v agrees with the infinitival T and values its Case, the φ-features of v remain unaltered due to Chomsky's (2001: 15) Maximization Principle, which forbids "partial elimination of features under Match, followed by elimination of the residue under more remote Match." Thus v can still probe its domain. When it agrees with *Mary*, it values the Case feature of *Mary*, and has its own φ-features valued. Since all unvalued features get valued successfully, the derivation converges.
    On the other hand, the derivation of the passive sentence (8) is problematic.

(8)   *The girls were seen leave.

(9) $[_{TP}$ T$_{[P:u]/[N:u]/EPP}$ $[_{VP}$ be $[_{PartP}$ -en$_{[G:FEM]/[N:PL]/[Case:u]}$ $[_{VP}$ see $[_{TP}$ [the girls]$_{[P:3]/[G:FEM]/[N:PL]/[Case:u]}$
       T$_{[N:PL]/[Case:u]/EPP}$ $[_{VP}$ t leave$]]]]]]$ (Hornstein, Martins and Nunes (2008: 213))

When the finite T of the matrix clause enters the derivation, it agrees with the participial head, *-en*, and values its Case feature, but T remains as a probe, because its own φ-features are not affected in accordance with the Maximization Principle. In addition to *-en*, the embedded subject, *the girls,* and the infinitival head, T, need to have their Case feature valued. Since *the girls* and the infinitival head are equidistant, the former does not intervene between the agreement relation of the finite T and the infinitival head, as in the case with (7). However, the participial head *-en* blocks agreement of the finite T with the infinitival head; since the only φ-feature that the infinitival head possesses is a number feature, the number feature of -en induces an intervention effect. It has already been valued because of its previous agreement with *the girls*, but the valued features remain until the end of the strong phase and empower their host to act as an intervener. The derivation crashes due to the unvalued Case feature of the infinitival head.[4]
    As for the introduction of *to,* which saves the passive sentences as in (3), they claim that it is the morphological reflex of the inherent Case assigned by the matrix verb to its infinitival complement. In their analysis, the inherent Case is assigned in the active sentences as well, but since the insertion of morphological materials not present in the underlying numeration is a last resort operation, *to* appears only in the passive sentences, where the

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[4] This analysis is parallel to Pires's (2006) account of the impossibility of passivizing the subject of Acc-*ing* gerunds, which he attributes to the unvalued Case feature of the gerundive head.
    (i)   *Bill was preferred swimming.   (Pires (2006: 56))
Below I will show that gerunds and infinitivals have different distributional properties, and claim that it is implausible to treat both of them similarly with respect to Case features.

derivation would otherwise crash.

Their account seems to be a minimalist implementation of Pollock's (1994) analysis in which the ungrammaticality of (8) is attributed to the Case filter; the nominal infinitival head cannot be licensed because passive participles are not Case assigners. Since their proposal crucially relies on the assumption that the head of the infinitival complement of perception/causative verbs carries a Case feature, let us examine if this assumption is tenable. They cite Raposo's (1987) argument that Portuguese infinitival clauses can appear only in Case positions.

(10) a.   O   rapaz receia [chumbar o   exame].
        The boy   fears   fail-INF the exam
        'The boy fears failing the exam.'

     b.   o   receio *(de) [chumbar o   exame]
        the fear   of   fail-INF the exam
        'the fear of failing the exam'

     c.   O   rapaz extá receoso *(de) [chumbar o   exame].
        the boy is   fearful   of fail-INF the exam
        'The boy is fearful of failing the exam.'   (Hornstein, Martins and Nunes (2008: 203-204))

Then they draw on Nunes (1995), who extends Raposo's proposal to English infinitivals. Lightfoot (1979) argues that the infinitival clauses were nominals in Old English. Before the phonological weakening of inflectional endings, English had an overt infinitival ending, *-an*, which exhibited dative Case inflection, *-anne/-enne*, when preceded by *to*. As *to* lost its prepositional force and became a grammatical formative, however, the infinitivals began to be treated as something different from DPs from the late fourteenth century and came to be reanalyzed as VPs by the late sixteenth century.[5] Contra Lightfoot (1979), Nunes (1995) proposes that the infinitival ending became phonetically null in Modern English but retained its nominal property of requiring Case. Hornstein, Martins and Nunes (2008) implement this proposal by assigning a Case feature to the infinitival head of the complement of causative/perception verbs in both English and European Portuguese.

First let us see whether *to*-infinitivals occur in Case positions in Modern English or not. They occur as the subject of a tensed clause (11a) and the object of a verb (11b), but they do not occur as the object of a preposition (12a),[6] the subject of the Exceptionally Case-marked clause (12b), or the subject of a tensed clause from which Topicalization is disallowed (12c). Moreover, *of*-insertion is not triggered when the infinitivals follow an adjective or a noun (13) unlike Portuguese examples (10b, c).

(11) a.   [To be a good mother] is not as easy as you might think.
     b.   John tried [to win the game].
(12) a. *We were talking about [to have gone to China].
     b. *I consider [[to come home] to be easy].
     c. *John's belief [(that) [(for you) to take this course] would help you] is unfounded.

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[5] Tanaka (2009) relates the rise of a new functional category, T, in the bare infinitival complements of *make* and *let* to the loss of the infinitival endings. According to his proposal, when the infinitival endings disappeared, Multiple Agree, i.e., valuation of the Case feature of the embedded subject and the embedded infinitival by the matrix V, could no longer hold, and as a result T emerged as a new licenser of predication.

[6] Ayaka Sugawara and Noriko Imanishi pointed out the following to me.
    (i)   I had no choice but (to) accept his proposal.
    (ii)   She did nothing except (to) complain.
If *but* and *except* are prepositions in these fixed expressions, (i) and (ii) are exceptions to the claim that infinitivals do not occur as a complement of a preposition. Infinitivals were able to occur immediately after a preposition before they were reanalyzed as VPs as in (iii) and (iv), so it may be possible to regard (i) and (ii) as remains from the earlier period.
    (iii)   after for to speke of Ierusalem... c.1400
    (iv)   ne I herd neuer... in land Men sua hard at to understand. 14c.   (Lightfoot (1979: 192))

(13) a. Ken's attempt to finish on time   (Stowell (1981: 171))

  b. John is eager to win the game.

This contrasts sharply with the distribution of gerunds, which have nominal properties: they occur in Case positions (14), and trigger *of*-insertion (15).[7]

(14) a. We were talking about [the Marines' having gone to China].   (Stowell (1981: 148))

  b. I consider [[John's having come home] to be fortunate].   (Stowell (1981: 149))

  c. John's belief [(that) [your taking the course] helped you] is unfounded.   (Stowell (1981: 153))

(15) a. John's discussion *(of) going home with us   (Stowell (1981: 171))

  b. John is afraid *(of) flying long distances.

The distribution of *to*-infinitivals indicates that it is unlikely that they have a Case feature that needs to be valued from outside.

  Pollock (1994) claims that it is natural to assume that the head of the infinitival complements of the perception/causative verbs are assigned Case, because these verbs take DP complements independently.

(16) a. I heard [a song].

  b. I heard [John sing a song].

However, the ability to select a DP does not entail the ability to Case-license a clausal complement. *Try*, for example, takes a DP, but it does not seem to assign Case to its infinitival complement. (17b) should be possible on a par with (17a), if *try* assigns Case to its complement in both of them.

(17) a. Our products have been tried and tested many times before marketing.

  b. *To win the race was tried by John.

Hence it does not seem plausible to assume that infinitivals have a Case feature in English.

  Next let us consider the status of *to* in them, because if it acts as a Case marker, the infinitival complements would bear Case without recourse to Case assignment from outside. Stowell (1981) gives some reasons to think this is not so. This would give rise to the violation of his Case-Resistance Principle, which forbids Case to be assigned to a category bearing a Case-assigning feature, according to which infinitivals, bearing [+tense], cannot be assigned Case. In addition, *to* occurs in infinitival clauses, even when they do not need Case in order to be θ-marked.

(18) a. I need to buy something [to drink].

  b. He worked very hard [to please her].

  c. It is necessary [to finish this job by the end of this week].

Adjectives and adverbs do not require Case, and neither do adjectival and adverbial infinitivals in (18a, b), but *to* is still necessary. Moreover, if Case is transmitted to the infinitival clause from the subject expletive, as is often assumed with *there*-associate pairs, it is not clear why *to* has to show up in (18c). Stowell concludes that *to* is not a Case marker but the head of the infinitival clause, which I think is correct. It is an element that marks nonfiniteness in the extended projection of VPs in Grimshaw's (1997) terms. Thus it is hard to agree with Hornstein, Martins and Nunes on taking an infinitival head, *to*, to be an inherent Case marker, which appears as a last resort in the passive of

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[7] Ito (1995) observes that PRO-*ing* appeared in Middle English while Acc-*ing* and Poss-*ing* gerunds came to be commonly used in early Modern English. It is interesting that the rise of gerunds and the loss of nominal property of infinitivals seem to occur roughly over the same period.

the infinitival subject of the perception/causative verbs.

In Romance languages, infinitivals are similar to English gerunds in their distribution. European Portuguese lacks a counterpart to English gerunds, so it seems natural that infinitivals in European Portuguese should have a nominal property. In fact Raposo (1987) shows that *-r* sometimes acts as a nominalizer, turning a verbal stem into a derived noun, and allows the derived noun to occur with a determiner and modifying adjectives. On closer inspection, however, Romance bare infinitivals do not occur in DP positions. Kayne (2000) agrees with Raposo (1987) in treating Romance bare infinitivals as nominals, but he argues that they are NPs rather than DPs, and that they do not require Case. For example, he observes that bare infinitivals cannot occur as the object of a subcategorized preposition other than *à/a* or *de/di* (19a), and that they are not fully acceptable as the subject of small clauses (19b). Moreover, a bare infinitival clause (19c'), in contrast to a DP (19c), cannot be the subject in the Aux-to-Comp construction.

(19) a. *Contavo su essere onesto.   (Italian)
          I counted on be-inf honest   (Cinque (1990: 35))
     b. ?Jean considère aller   au   cinema absurde.   (French)
          John considers go-inf to-the movies absurd
     c. Fosse la linguistica molto importante, ...   (Italian)
          were the linguistics very important, ...
     c'.??Fosse studiare   la linguistica molto importante, ...   (Italian)
          were study-inf the linguistics very important, ...   (19(b, c, c'): Kayne (2000: 287))

Kayne's arguments are based on French and Italian, so they may not extend directly to European Portuguese, but they show that even Romance infinitivals, whose similarities to DPs are conspicuous, behave differently from DPs in some respects, which casts some doubt on the assumption that they have a Case feature on a par with DPs. In addition, in order to account for the fact that Italian allows passivization of the subject of infinitival complements of perception verbs (5), Hornstein, Martins and Nunes (2008: fn.21) conjecture that "the infinitival head is assigned inherent Case by the matrix verb, despite the lack of overt morphological manifestation." Unless there is some good reason to convince us why inherent Case is not overtly realized in the infinitival complement of perception verbs, which is usually realized as *di* in Italian, it seems to be nothing more than description of data.

To sum up, in this section we have seen cases where infinitivals in English and Romance languages do not occur in Case positions. Of course, it is logically possible to assume that unlike these infinitivals, infinitival complements of perception/causative verbs are peculiar in requiring Case valuation, but this is a highly marked assumption, which needs to be justified, for it results in complication involving valuation of two Case features: one on the infinitival head and another on the subject of the infinitival complement. Thus, Hornstein, Martins and Nunes's (2008) account based on Case feature valuation of the infinitival head and their claim that *to* is an inherent Case marker do not seem very well-founded.

3. Bennis and Hoekstra (1989): Tense Identification

Even though I do not share the view of Pollock (1994) and Hornstein, Martins and Nunes (2008) that the infinitival complement of perception verbs has a Case feature, I concur with them in regarding a passive participle, *seen*, as a culprit in making (2) impossible.

(2)   *John was seen walk across the street.

As is well known, it is possible to passivize a subject of small clauses with nonverbal predicates as well as a subject of ECM clauses.

(20) a.   John is considered intelligent.

     b.   John is considered to be intelligent.

The questions that need to be asked are why only the subjects of verbal small clauses resist passivization and why the insertion of *to* can save the structure. Williams (1983) proposes a filter, which rules out verbal sequences consisting of a passive participle followed by a bare infinitival. In this section, I will look at Bennis and Hoekstra's (1989) analysis, which seems to some extent to be able to explain the effect of this filter.

     It has been pointed out in the literature that bare infinitivals, in contrast to *to*-infinitivals, lack their own tense, and that they rely on the matrix tense for interpretation.[8] (cf. Higginbotham (1983), Safir (1993), Felser (1999)) Bennis and Hoekstra (1989) argue for a condition on T-linking, according to which verbs must be identified by tense. In Dutch, since the infinitival complement of perception verbs lacks its own tense, the embedded verb must raise to the matrix clause to be T-linked, as in (21b).

(21) a. * dat Jan [Marie een appel eten] hoort/ziet/laat

            that John Mary an   apple eat   hears/sees/lets

     b.   dat Jan [Marie een appel t_i] hoort/ziet/laat eten$_i$ (Bennis and Hoekstra (1989: 32))

A noteworthy characteristic of Verb Raising constructions in some West Germanic languages is a phenomenon known as Infinitivus Pro Participio (IPP): an infinitive appears where a participle is expected. In Dutch, this effect shows up when Verb Raising is obligatory.

(22) a.   dat Jan   mij heft gehoord/*horen

           that John me has heard/   hear

     b.   dat Jan [mij een liedje t_i] heft *gehoord/horen zingen$_i$

           that John me a   song   has   heard/ hear sing   (Bennis and Hoekstra (1989: 35))

In (22a), an infinitive cannot replace the past participle, because no Verb Raising takes place. On the other hand, in (22b), where Verb Raising is obligatory due to the condition on T-linking, an infinitive occurs in place of the past participle, even though it follows the perfective auxiliary. Bennis and Hoekstra argue that this is because a participle cannot be a link in a T-chain, and that the only way to save the structure is to keep the matrix verb in its infinitival form, which can act as a link in a T-chain. The impossibility of passivizing the subject of the infinitival complement of perception/causative verbs in (23) then follows.

(23)   *Kaatje$_i$ werd een liedje t_i gehoord zingen.

        Kaatje was a   song   heard   sing   (Bennis and Hoekstra (1989: 36))

The embedded verb, *zingen*, has to move up to the matrix T in order to be T-linked, but it has to move through the matrix V due to a locality condition on head movement. However, the matrix V is occupied by a participle, which is not a possible link in a T-chain, so the sentence is ungrammatical. The IPP does not occur to save (23), for replacing passive participles by infinitives would violate the recoverability condition on deletion. They claim the same explanation holds for English, if tense feature percolation is admitted as a way of satisfying T-linking.

     The exceptional status of participles is illustrated by the following contrast in Swedish.

(24) a.   Jag hör Peter sjunga en sang.

          I   hear Peter sing   a   song

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[8] Safir (1993: fn.16) notes that the event described by causative complements need not be contemporaneous with the cause of the action.

(i)   Her early trauma made Mary seek therapy later in life.

b. Peter hördes sjunga en sang.
   Peter was heard sing a song
c. *Peter blev hörd sjunga en sang.
   Peter was heard sing a song   (Bennis and Hoekstra (1989: 37))

Swedish has two types of passivization: one involves the "*s*-form" in which the main verb is inflected for passive (24b), and another is a periphrastic passive, consisting of a passive auxiliary and a passive participle (24c).[9] Interestingly, passivization of the embedded subject is possible in the absence of a passive participle (24b), but is ruled out if the passive participle is present (24c). I think this is a strong piece of evidence that indicates that a passive participle is responsible for the ungrammaticality of (24c), and that Bennis and Hoekstra's approach is worth pursuing.

In Romance languages, French and European Portuguese do not permit passivization of the subject of perception verb complements, in contrast to Italian.[10]

(25)   *Jean a été vu manger une pomme.   (French)
         Jean has been seen eat-INF an apple   (Pollock (1994: 302))[11]
(26)   *As meninas foram vistas   sair.   (European Portuguese)
         the girls   were seen-FEM-PL leave-INF   (Hornstein, Martins and Nunes (2008: 212))
(5)   Gianni è stato visto rubare la macchina.   (Italian)
         Gianni is been seen steal the car   (Guasti (1992: 221))

Guasti (1992) and Pollock (1994) observe that Italian infinitival verbs overtly raise to check their infinitival suffixes, whereas French infinitival verbs do so covertly, and propose to relate this to the contrast between (25) and (5). Verb Raising seems to be a key here again. If Italian infinitival complements of perception verbs constitute phrases larger than those in English or Dutch and contain T within, as claimed by Guasti (1992) and Felser (1999), infinitival verbs in Italian can be T-linked within the embedded clause whether the matrix verb is a passive participle or not. In contrast, if French infinitival complements lack tense, as Felser (1999) proposes, infinitival verbs in Dutch, English and French are expected to behave similarly; they have to be linked to matrix T, but the relation cannot be established due to an intervening participle.

Suppose tense identification can be carried out with verbs staying in positions lower than T in the following manner.

(27) a.   T v* see [$_{v*P}$ v* [$_{VP}$ Mary leave the room]][12]
     b.   T be –en see [$_{v*P}$ v* [$_{VP}$ Mary leave the room]]

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[9] According to Holms and Hinchliffe (2003), Swedish *s*-forms of the verb have four distinct uses: the reciprocal use, the deponent use, the absolute use, and the passive use. Unlike participles, they can carry tense, although they occur in infinitives as well. In addition, they do not inflect for number and gender agreement, in contrast to participles. Thus, *s*-forms of the verb are distinct from passive participles.

[10] Pollock (1994) claims that Portuguese and Spanish are like Italian in not allowing passivization of the subject of perception verb complements, even though he admits that judgment of Spanish data is not as clear as in Italian. The data may not be as clear-cut as indicated in (25), (26) and (5) and may require further examination.

[11] Pollock (1994) notes that some speakers find sentences like (25) "slightly less horrendous than" those involving causative verbs, but that they are never perfect. Zubizarreta (1987) and Kayne (1984) give the following judgment respectively.
    (i)   *Les enfants ont été vu partir.
              'The children were seen leave."   (Zubizarreta (1987: 153))
    (ii)   ?Jean a été vu traverser le fleuve.
              'Jean was seen (to) cross the river.'   (Kayne (1984: 108))

[12] I assume that the infinitival complements of *see* in (27a, b) are v*Ps for an expository purpose only. I leave the categorical status of these complements open.

In an active sentence (27a), T looks down in a way analogous to Agree and identifies bare verbs, *see* and *leave*. Both verbs are identified by the matrix tense, and (27a) results in grammaticality. Notice that since the embedded complement can take an object DP, the infinitival complement has to be at least as large as a v*P. If Spell-Out occurs at the end of each phase, and sends the complement of the phase head, VP, to PF at the end of the v*P phase, it might appear that the matrix T will not be able to "see" the embedded verb when tense identification takes place.[13] However, Bošković (2003/2007: 78) argues based on several empirical phenomena including long distance agreement into finite clauses in Chukchee and Blackfoot that phases are irrelevant to pure Agree: "sending a unit X to Spell-Out in itself does not freeze X for further syntactic computation, hence would not block application of Agree into X." Following Bošković, I assume that Agree and tense identification can take place across phase boundaries.

As for the passive counterpart (27b), the passive auxiliary, *be*, raises to T. *See* merges with *-en*, so tense identification is not relevant. Crucially, the embedded bare verb, *leave*, cannot be identified by tense, due to the intervention of the participial head in the matrix clause, hence the sentence results in ungrammaticality. In contrast to Dutch, where both past participles and passive participles fail to constitute T-links,[14] in other languages, including English and French, only passive participles block tense identification, as shown by the grammaticality of (28).

(28) a.   I have seen Mary leave the room.
     b.   J'ai   vu   Paul voler une voiture.
          I have seen Paul steal a   car   (Guasti (1992: 196))

According to Chomsky (2001), passive participles have a Case feature, whereas past participles do not. Maybe it is this nominal/verbal ambivalence of passive participles that is responsible for their inability to function as a T-link, but it is just a stipulation. I must admit that the analysis by Hornstein, Martins and Nunes (2008) based on Case is much more elegant in this respect. It may be necessary to devise a tense feature system for verbal elements analogous to a Case feature system for nominal elements.

As for the presence of *to* in passives, I agree with Felser (1999), who claims that passive sentences with *to* are not derived directly from their active counterparts with bare infinitivals. She argues that while passive sentences denote indirect perception, active sentences with bare infinitivals denote direct perception. Verbs like *watch* and *listen to*, which allow for direct perception reading only, do not occur in passive sentences.

(29) a.   Nureyev was seen/*watched to leap across the stage.
     b.   The President was heard/*listened to to mutter to himself.   (Kirsner (1977: 174))

Moreover, perfective and progressive auxiliaries are permitted in the passive sentences, but not in the active sentences.

(30) a.   Mary was seen to have finished her breakfast.
     b.   Mary was heard to be singing a song.   (Felser (1999: 95))
(31) a.   *We saw John have drawn a circle.
     b.   *We saw John be drawing a circle.   (Felser (1999: 26))

In (30), since *to* occurs in T, tense identification of a bare verb takes place within the infinitival complement, a full-fledged TP which is capable of hosting aspectual auxiliaries.

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[13] I am thankful to an anonymous reviewer for pointing out to me that tense identification, being a semantic requirement imposed by LF or C-I interface, should take place in narrow syntax and not in PF or Morphology.

[14] Hoeksema (1988) proposes to attribute the impossibility of Verb Raising to participles to their morphological complexity in Dutch and German. If so, then it is natural that Dutch and German do not distinguish past participles from passive participles with respect to T-linking.

However, there is a problem with this analysis. Guasti (1992) notes that in Italian, passivization of the object of a perception verb complement is impossible, but that the sentence improves if the embedded verb is passivized.[15]

(32) a.　＊La macchina è stata vista riparare/distruggere da Ugo.
　　　　 'The car has been seen to repair/destroy by Ugo.'　　　　　　　 (Guasti (1992: 220))
　　 b. ??La macchina è stata vista [venir riparata/distrutta da Ugo]
　　　　 'The car has been seen to get repaired/destroyed by Ugo.'　　　 (Guasti (1992:221))

The same holds true in English.

(33) a.　＊The car was seen to repair by John.
　　 b. ??Mary was seen to be kissed by John.
　　 c.　 Mary was seen being kissed by John.

If the infinitival complement of passive perception verbs is a regular TP, it is not clear why (33b) is not fully acceptable. This has led Basilico (2003) to propose that passive sentences of perception/causative complements involve object control, but his analysis does not seem coherent with the observation that *to*-infinitivals (including those that occur in passives) are associated with indirect perception reading. I leave this problem open for future research.

4. Summary

In many languages perception verbs take bare infinitival complements, but languages vary as to whether passivization of the subject of these complements is allowed or not. In this note, I have pointed out a problem with an analysis proposed by Hornstein, Martins and Nunes (2008) by showing that contrary to their claim, infinitival complements are not Case-marked. Then I have briefly outlined how Bennis and Hoekstra's (1989) analysis can be implemented in a recent framework, and examined the status of *to* in the passive complements of perception verbs. I have excluded causative complements from the scope of this study, which seem to have a larger structure than perception verb complements in English, and which show different behavior from perception verb complements in Italian and European Portuguese. Whether a unified account for perception verb complements and causative verb complements is possible will be the subject of further study.

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[15] In contrast, it is possible to passivize the embedded object out of the causative complement, but causatives verbs do not allow passives within the infinitival complement.
　(i)　　　　La　macchina è　 stata fatta　riparare a Gianni.　　　　　　 (Guasti (1992: 41))
　　　　　　 The car　　　 has been made repair　 to Gianni
　　　　　　 'The car has been made to be repaired by Gianni.'
　(ii)　　　 ＊La macchina è stata fatta venir riparata/distrutta da Ugo.　　 (Guasti (1992: 221))
　　　　　　 'The car has been made to get repaired/destroyed by Ugo.'

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