

Locative Causatives in European Portuguese as Voice Alternations

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1 Introduction

In this paper, we discuss the syntax of a causative construction in European Portuguese, which is similar in some ways to the ordinary causative (OC) (see (1)) but which also differs from it in important ways. We refer to this construction as the Locative Causative (LC) construction. LCs alternate between transitive (TLC) and intransitive (ILC) variants, as seen in (2a) and (2b), respectively.

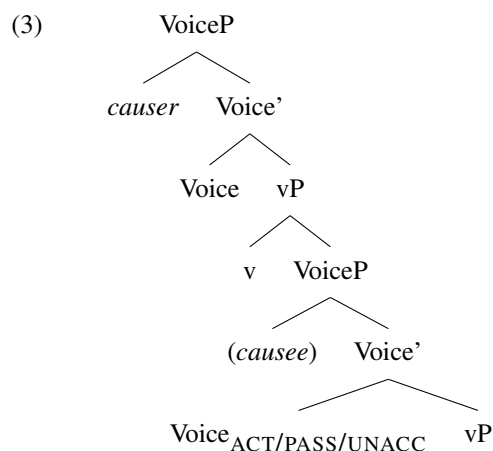
- (1) Fiz o polícia lavar a roupa. (OC)
made.1SG the police officer wash.INF the clothes
'I made the police officer wash the clothes.'
- (2) a. Pus o polícia a lavar a roupa. (TLC)
put.1SG the police officer A wash.INF the clothes
'I made the police officer wash the clothes.'
- b. A roupa foi a lavar. (ILC)
the clothes went.3SG A wash.INF
'The clothes were put to wash.'

We show that LCs (i) may involve an embedded passive VoiceP, despite being morphologically infinitive (cf. Pitteroff 2014), (ii) entail a change of location of the theme, and (iii) exhibit an existence presupposition on the theme. We argue that ILCs and TLCs are distinguished from ordinary causative constructions in that the matrix light verb has a locative meaning that is absent from ordinary causatives. We show furthermore that the three constructions differ in terms of the Voice heads they embed: while OCs may embed active, passive, or unaccusative verb phrases, ILCs only embed a passive VoiceP, and TLCs embed either a passive or active VoiceP.

The paper is organized as follows. Section 2 discusses and compares the argument structure of LCs and OCs. Section 3 then discusses the special properties that further distinguish LCs from OCs. Section 4 concludes.

2 Basic VoiceP Properties

In this section we discuss the basic argument structural properties of ILCs and TLCs as compared to ordinary causatives. We assume that ordinary causatives have a structure like (1), where they embed a VoiceP and a vP, as shown in (3) below. We will show that these causatives may embed active, passive or unaccusative Voice (cf. Schäfer 2017). (In this paper, we do not take a stand on whether unaccusatives are accompanied by an unaccusative Voice head or have no Voice head at all.)



2.1 Unaccusative/Raising Matrix Verb

In OCs, the matrix verb cannot be unaccusative/raising, but rather must project a transitive Voice head with an external argument. (4a–b) attempt to embed a transitive VoiceP under an unaccusative/raising causative verb, (4c) attempts to embed a passive or unaccusative VoiceP/vP under an unaccusative/raising causative verb, and (4d) attempts to embed an unambiguously unaccusative VoiceP/vP under an unaccusative/raising causative verb. None of these examples are possible with the intended reading. (With the reflexive clitic in (4b–4c), the sentence is possible with a true reflexive reading, as in ‘The police officer made himself wash the clothes’ or ‘The clothes made themselves wash something’, but not on the intended, unaccusative reading.)

- (4) a. *O polícia fez lavar a roupa.
the police officer made.3SG wash.INF the clothes
INTENDED: ‘The police officer made the clothes wash.’
- b. #O polícia fez-se lavar a roupa.
the police officer made.3SG(-REFL) wash.INF the clothes
INTENDED: ‘The police officer made the clothes wash.’
- c. #A roupa fez(-se) lavar.
the clothes made.3SG(-REFL) wash.INF
INTENDED: ‘Someone caused the clothes to be washed.’
- d. *A árvore fez(-se) crescer.
the tree made.3SG(-REFL) grow.INF
INTENDED: ‘The tree was caused to grow.’

ILCs, on the other hand, are unaccusative. Evidently, however, they must embed passive verbs: neither transitive verbs (5b) nor unaccusative verbs (5c) can be embedded in ILCs, as seen in (5) below.

- (5) a. A roupa foi a lavar. (ILC)
the clothes go.PST.3SG A wash.INF
‘The clothes were put to wash.’
- b. *O polícia foi a lavar a roupa. (ILC)
the police officer went.3SG A wash.INF the clothes
INTENDED: ‘The police officer caused washing of the clothes’
- c. *A árvore foi a crescer. (ILC)
the tree went.3SG A grow.INF
INTENDED: ‘The tree was put to grow.’

2.2 Transitive Matrix Verb

OCs and TLCs both project a matrix Voice head with an external argument, and both may embed a transitive VoiceP as well.

- (6) Embedded Transitive VoiceP
- a. Fiz o polícia lavar a roupa. (OC)
made.1SG the police officer wash.INF the clothes
‘I made the police officer wash the clothes.’
- b. Pus o polícia a lavar a roupa. (TLC)
put.1SG the police officer A wash.INF the clothes
‘I made the police officer wash the clothes.’

OCs and TLCs also both allow the embedded VoiceP to be passive. In both (7a) and (7b), there is an implicit agent (see below for further evidence of this).

(7) Embedded Passive VoiceP

- a. Fiz lavar a roupa. (OC)
made.1SG wash.INF the clothes
'I made the clothes be washed.'
- b. Pus a roupa a lavar. (TLC)
put.1SG the clothes A wash.INF
'I put the clothes to wash.'

However, while OCs may embed an unaccusative vP/VoiceP, unaccusatives are quite degraded in TLCs.

(8) Embedded Unaccusative

- a. Fiz a árvore crescer. (OC)
made.1SG the tree grow.INF
'I made the tree grow.'
- b. ?? Pus a árvore a crescer. (TLC)
put.1SG the tree A grow.INF
'I put the tree to grow.'

2.3 Distinguishing Embedded Passives/Unaccusatives

So far, we have claimed that ILCs and TLCs may embed passive but not unaccusative VoicePs/vPs. The claim is that when there is no overt external argument of the embedded verb, it *is* projected semantically, but it *is not* projected syntactically. We now present evidence that this is the case.

Instrument phrases have been argued to be diagnostics that pick out implicit agents introduced in a VoiceP (Bruening 2013). These are applied in (9) and (10). The phrase *com água quente* with hot water modifies the embedded event, since it refers to the washing, while *com luvas* with gloves refers to the doer of the washing, and thus modifies the matrix event. TLCs allow instrument phrases that modify the embedded event (with hot water) or the matrix event (with gloves) (see (10)), while ILCs only allow instrument phrases that modify the embedded event (see (9)).

- (9) A roupa foi a lavar (com água quente / *com luvas). (ILC)
the clothes go.PST A wash.INF (with water hot / *with gloves)
The clothes were put to wash (with hot water/*with gloves = wearing gloves).
- (10) O João pôs a roupa a lavar (com água quente / com luvas). (TLC)
the João put.PST the clothes A wash.INF (with water hot / with gloves)
John put the clothes to wash (with hot water/with gloves = wearing gloves).'

The fact that instrument phrases may modify the embedded event indicates that there is a VoiceP introducing an implicit agent in the embedded clause of both TLCs and ILCs.

The presence of an embedded Voice in ILCs is also suggested by the possibility of agentive *by*-phrases, as illustrated in (11a). These are subject to some constraints with ILCs and are not possible with TLCs (11b). Specifically, the agent named in the *by*-phrase cannot have a specific reference, but rather must be generic or indefinite. Thus, the indefinite *by*-phrase 'by someone who knew how to get those stains out' in (11a) is acceptable, while the definite *by*-phrase 'by John' in (11c) is degraded.

- (11) a. A roupa foi a lavar (por alguém que sabia tirar aquelas nódoas).
the clothes go.PST.3SG A wash.INF (by someone that knew take those stains)
The clothes were put to wash (by someone who knew how to get those stains out)
- b. O João pôs a roupa a lavar
the João put.PST.3SG the clothes A wash.INF
(*por alguém que sabia tirar aquelas nódoas).
(*by someone that knew take those stains)
'John put the clothes to wash (by someone who knew how to get those stains out).'

- c. A roupa foi a lavar (*pelo João).
 the clothes go.PST.3SG A wash.INF (*by.the John)
 The clothes were put to wash (by John)

The same kind of constraints on *by*-phrases are found elsewhere, in active or quasi-active constructions, such as the *tough*-construction in English, indirect causatives and the impersonal modal construction in Icelandic (E.F. Sigurðsson and Wood 2020 and E.F. Sigurðsson 2017, respectively), as well as the *tough*-construction in Icelandic (E.F. Sigurðsson 2015); and in passive constructions, such as Greek passives (Alexiadou et al. 2015:121–122) and ability adjectives (Kayne 1981; Fabb 1984; Roeper 1987; Oltra-Massuet 2010). We assume for transitive LCs like (11b) that there is an embedded Voice head, despite the incompatibility with *by*-phrases, even indefinite ones (see (11b)), since they are compatible with instrument phrases (10).

At this point it is worth returning to the question of whether the embedded passive Voice head is obligatory; earlier, we claimed that unaccusative verbs cannot be embedded in locative causatives. We show this further in (12) with ‘arrive’ and in (13) with ‘grow’. In (14) we see that ‘rust’ is possible; however, it is not clear that this is truly unaccusative. The most natural interpretation in this case is that someone or something is doing the rusting, not that it is occurring naturally.

- (12) a. *O livro foi a chegar. (ILC)
 the book go.PST A arrive.INF
 The book was put to arrive.
 b. *O João pôs o livro a chegar. (TLC)
 the John put.PST.3SG the book A arrive.INF
 John put the book to arrive
- (13) a. *A árvore foi a crescer. (ILC)
 the tree go.PST A grow.INF
 The tree was put to grow.
 b. ??O João pôs a árvore a crescer. (TLC)
 the John put.PST.3SG the tree A grow.INF
 John put the tree to grow
- (14) a. O ferro foi a enferrujar. (ILC)
 the iron go.PST A rust.INF
 The iron was put to rust.
 b. O João pôs o ferro a enferrujar. (TLC)
 the John put.PST.3SG the iron A rust.INF
 John put the iron to rust.

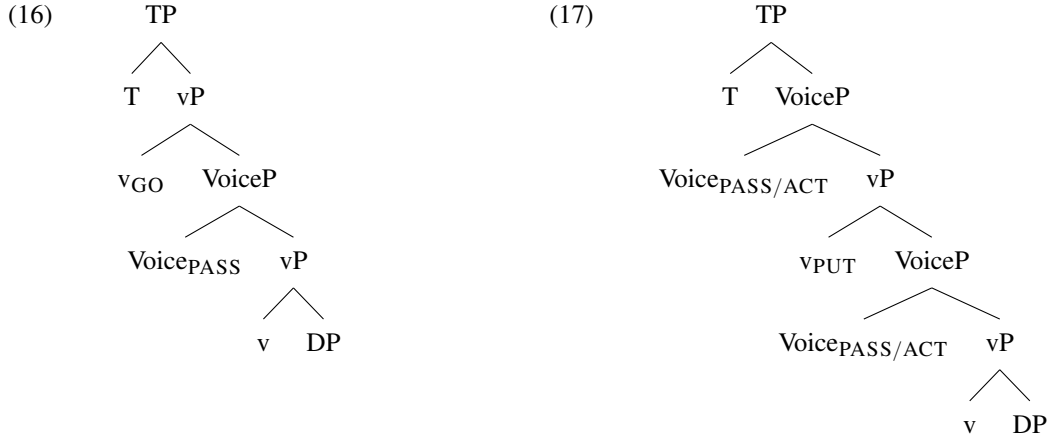
Thus, ILCs and TLCs always embed a Voice head, which is always passive for ILCs but can be passive or transitive for TLCs.

Despite the presence of a Voice head, the implicit agent is not syntactically projected, as shown by the fact that the theme can A-move to the subject position in ILCs. This can also be shown for TLCs by passivizing the matrix verb, as shown in (15).

- (15) A roupa foi posta a lavar <a-roupa> (por mim).
 the clothes were put.PPT A wash.INF <the-clothes> (by me)
 The clothes were put to wash (by me).

If the embedded Voice head projected an external argument, movement of the theme to the subject position of the matrix verb would be unexpected (Maling and Sigurjónsdóttir 2002, E.F. Sigurðsson 2017, E.F. Sigurðsson and Wood 2020).

These facts suggest that the embedded VoiceP is essentially passive in that it has a semantic implicit agent but no syntactic argument (cf. Schäfer 2017) despite being morphologically infinitive (cf. Pitteroff 2014), as in (16). TLCs, as we have seen can embed either a passive or an active Voice, as schematized in (17).



We suggest that the alternation between ILCs and TLCs is due to a matrix Voice alternation – the *v* on top of the locative causative on ILCs gets spelled out as *ir* go and the *v* with Voice on TLCs gets spelled out as *pôr* put. Recall from (9) and (10) that instrument phrases modifying the embedded event are acceptable for both ILCs and TLCs, but instruments phrases modifying the matrix event are only acceptable for TLCs, not ILCs. Thus, TLCs but not ILCs have a matrix VoiceP, which conditions the realization of *v*.

3 Special Properties of ILCs and TLCs

In this section we discuss some special properties of locative causatives—a change-of-location entailment and an existence presupposition—which further distinguish this type of causative from ordinary causatives.

3.1 Change of Location

The theme of locative causatives is entailed to undergo a change of location. Compare (18), in which the object is *o carro* the car, with (19), in which the object is *a casa* the house:

- (18) O carro foi a pintar.
 the car go.PST.3SG A paint.INF
 The car was put to paint.
- (19) # A casa foi a pintar.
 the house go.PST.3SG A paint.INF
 INTENDED: ‘The house was put to paint.’

(18) and (19) both have the same embedded verb, *pintar* paint, so the unavailability of (19) must be due to the object. The only way for (19) to be acceptable is if the house is somehow movable (like a mobile home, for example), otherwise the sentence is unacceptable. We propose that this property derives from the locative meaning contained in the light verb, which distinguishes it from ordinary causatives which do not have an inherent change-of-location meaning.

3.2 Existence Presupposition

We suggest that the change-of-location property ultimately underlies the fact that the theme is subject to an existence presupposition: it must already exist in some form prior to the event. A comparison between verbs such as *construir* build (20) and *montar* assemble (21) shows that this is quite a fine-grained distinction. (20) is acceptable because assembling furniture implies that there already exist discrete parts of the furniture, whereas building furniture really means making it from scratch (in other words, the parts are less furniture-like than with assemble).

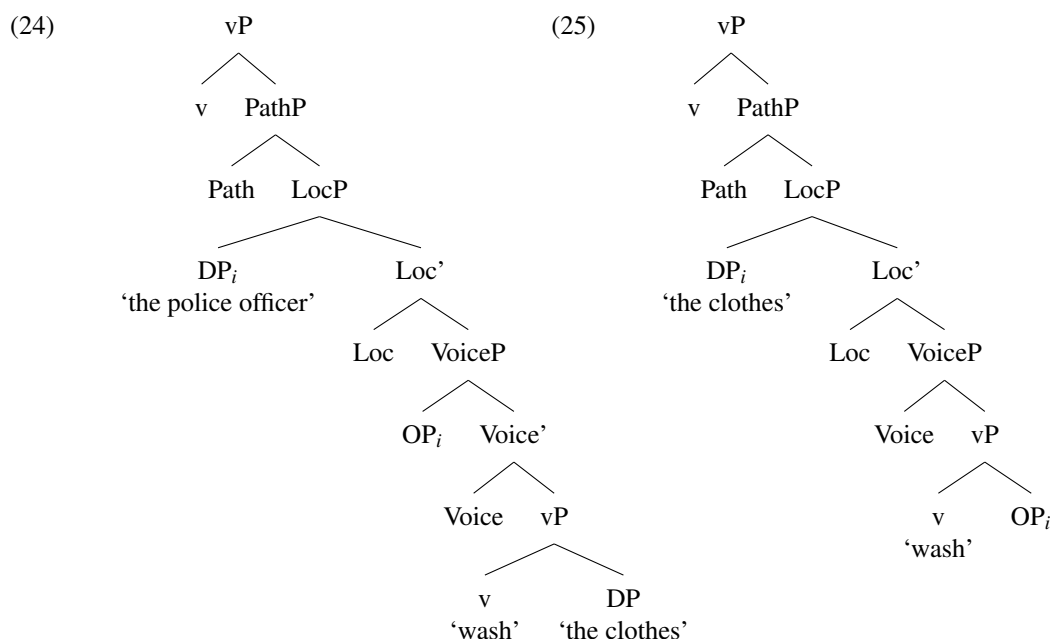
- (20) * A mobília foi a construir.
 the furniture go.PST.3SG A build.INF
 INTENDED: ‘The furniture was put to build.’
- (21) A mobília foi a montar.
 the furniture go.PST.3SG A assemble.INF
 ‘The furniture was put to assemble.’

We propose that the existence presupposition follows from the change-of-location entailment: a theme cannot be both created and undergo a change-of-location as part of the same event, so it must therefore exist prior to the event. Thus, locative causatives are grammatical with change-of-state verbs, but not with creation verbs, since in the latter the theme is entailed not to exist prior to the creation event. Ordinary causatives show no such restriction—there is no change-of-location entailment, as (22) shows (compare with (19)), and consequently no existence presupposition, hence the grammaticality of (23) (compare with (20)).

- (22) Fi-los pintar a casa.
 made.1SG-them paint.INF the house
 ‘I made them paint the house.’
- (23) Fi-los construir a mobília.
 made.1SG-them build.INF the furniture
 ‘I made them build the furniture.’

3.3 Analysis of Change-of-Location

Folli and Harley (2020) have recently argued that in Romance languages, which are “verb-framed” (as opposed to “satellite-framed”) according to Talmy’s (1978; 1985) classic distinction, little *v* incorporates a Path head in an extended PP, and the Path head itself incorporates a Loc head (see also Săvescu Cuicivara and Wood 2013). We would like to propose that these heads are present in TLCs and ILCs, and moreover that the overt theme or embedded agent is actually the subject of one of them, which we assume here to be Loc. This overt DP is coindexed to a null DP within the VoiceP, which may be a kind of PRO or a null operator (as in Bruening’s 2014 analysis of adjectival passives; see also Wood and Sigurðsson 2014).



As in Folli and Harley (2020), Loc moves to Path, and Loc+Path moves to *v*. This Loc+Path+*v* head is what we called v_{GO} and v_{PUT} earlier: the distinction between the two, as we have claimed, is

that this complex is pronounced as *ir* ‘go’ when there is no external argument and as *pôr* ‘put’ when there is one.

The meaning of the construction follows from the structure. *v* denotes an event leading to a result state, and the result state is a path to a location where an event takes place. The DP undergoes a change in location because what is created, semantically, is a path to a state where the DP is at that location; this is the state that ‘comes into being’.

At least two things, however, still need to be clarified. First, it may seem somewhat unusual to see a Loc head taking a VoiceP complement. Second, we have not yet said anything about the limited range of available Voice heads: why is the structure in (24) only available when the matrix verb projects an external argument, and why doesn’t either structure embed unaccusatives?

Turning to the first question, notice that the problem is not that locational prepositions cannot combine semantically with an event: event-denoting nouns like *party* are fine (as in ‘at the party’). Moreover, pseudo-incorporated singular nouns also typically denote events, as *I’m going to rehearsal/band practice/etc.* We could consider the possibility that the structure is nominalized, but so far, we have found no evidence that this is the case. Finally, we know that syntactically, prepositions can take verbal complements—this is often the source of progressive constructions, for example, and there are ECM-like structures such as *listen to him whistle*; see also Svenonius (2007) on *I took care in drying the cups*. For now, we leave this issue for future research.

Turning to the combinatorics, we consider two separate dimensions of the issue. For the unavailability of embedded unaccusatives, we speculate that unaccusatives are not possible due to a semantic constraint that the embedded event in a LC cannot happen on its own. The semantics provides a change-of-location, but another entity must initiate the event.

For the impossibility of (24) with an unaccusative matrix vP, we consider three possibilities, and do not decide between them here. First, the problem might be with Case-licensing. Suppose the embedded VoiceP is defective and cannot license an object, and that T can only license one DP, while non-defective Voice can license two DPs (as in double-object constructions). (24) would require a matrix Voice head to license the two DPs, while (25) would not. This is problematic, however, in that it lacks independent support, and requires a rather long-distance licensing, past the embedded VoiceP.

Second, we might consider a semantic constraint to the effect that only an agent can exert control over another agent to cause them to be at a location. The matrix unaccusative would not have such an agent, and would imply that the change happened on its own. When the theme is in SpecLocP, this is not a problem, because the theme is not an agent. This is problematic, however, in that there is still an implied agent, and it is not clear why the theme can come to a location on its own either.

Third, we could consider a Voice-matching constraint. Suppose that we assume that active Voice has an EPP-feature, while passive and unaccusative Voice do not. Furthermore, we could propose that these constructions are essentially restructuring, along the lines of Wurmbrand (2015), and that the lower Voice head incorporates into Loc—which of course moves to Path, to *v*, and to the higher Voice head. Then we could say that the defective, lower of the two Voice heads must match its features with the higher one. Active Voice has an EPP feature, so it has to match a higher Voice with an EPP feature. Passive Voice, however, has no EPP feature, so it is only required to match a Voice head of any kind, whether it has an EPP feature or not. This third approach seems to get the facts right as we understand them now, but it also faces some theoretical problems. For one thing, the account relies specifically on EPP-features, but of course, there are other features that a passive Voice head might have, and it is not clear why those features would not have to match. Furthermore, the account in Wurmbrand (2015) that inspires this is quite different in some ways, including the claim there that agent-features must match, so that both events have the same agent. This would not be the case here, so it is really a different mechanism at play, and it remains to be understood what that mechanism is.

4 Conclusion

In this paper, we have examined the properties of European Portuguese ILCs and TLCs, and proposed that both may embed a passive VoiceP despite having infinitival morphology. In addition, TLCs may embed an active VoiceP. These constructions are distinct from ordinary causatives in that they entail a change of location, and presuppose the existence of the theme. We have suggested that this is because the entire VoiceP is embedded in LocP structure of the sort proposed in general for Romance languages by Folli and Harley (2020), and that this structure also leads to the existence presupposition. The distinction between light verbs *ir* ‘go’ and *pôr* ‘put’ stems solely from the presence or absence of an external-argument-introducing Voice head in the matrix clause.

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