



RESEARCH ARTICLE

Object control verbs and syntactic causatives: Inflected infinitives as a cue to syntactic structure

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Abstract

This paper discusses the syntactic behaviour of a small subset of object control verbs that have an implicative interpretation (e.g. *obrigar* ‘force’, *impedir* ‘prevent’) as well as the behaviour of superficially similar syntactic causatives in European Portuguese. By exploring different syntactic properties and giving special attention to inflected infinitives as complements to the two classes of verbs, we argue that implicative object control verbs are ambiguous between true control verbs (which are ditransitive) and syntactic causatives (which take a single, clausal, internal argument). To this extent, we present an argument defying Landau’s (2015) analysis of control under these verbs as predication. We also argue that the implicative interpretation of these verbs is not determined by the syntactic nature of their complement: This interpretation is maintained in both the causative and the control counterparts of the verb. By comparing implicative object control verbs and the understudied and superficially similar *pôr a* ‘put to / make’ and *deixar a* ‘put to / make’, and by highlighting the distribution and interpretation of inflected infinitives in their complements, we can argue that the latter are unambiguous syntactic causatives, which take as complement a small clause in which we internally observe control.

1. Introduction

This paper explores the similarity of three classes of verbs in European Portuguese (EP), which have in common the fact that they share a superficially identical structure and a causative interpretation. These classes are represented by the well-known (syntactic) causatives *deixar* ‘let’, *fazer* ‘make’, and *mandar* ‘order / make’, which we will call Type A causatives, see (1); *deixar a* ‘make’ and *pôr a* ‘put to’ / ‘make’, which we will call Type B causatives, see (2); and a small subset of the class of object control verbs including *obrigar* ‘force’, *forçar* ‘force’, and *impedir* ‘prevent’, see (3).

- (1) (a) O João deixou as crianças / as maçãs cair.¹
 the João let the children / the apples fall.INF
 ‘João let the children / the apples fall.’
- (b) O João / o vento fez as crianças / as maçãs cair.
 the João / the wind made the children / the apples fall.INF
 ‘João / the wind made the children / the apples fall.’
- (c) O João mandou os filhos dormir.
 the João ordered the children sleep.INF
 ‘João ordered his children to sleep.’
- (2) (a) O pai / o medicamento deixou os bebés a dormir.
 the father / the medicine made the babies A sleep.INF
 ‘The father / the medicine made the babies sleep.’
- (b) O pai / o medicamento pôs os bebés a dormir.
 the father / the medicine put the babies A sleep.INF
 ‘The father / the medicine put the babies to sleep.’
- (3) (a) O João obrigou / forçou as filhas a comer a sopa.
 the João forced / forced the daughters A eat.INF the soup
 ‘João forced his daughters to eat the soup.’
- (b) O João impediu as filhas de comer a sopa.
 the João prevented the daughters DE eat.INF the soup
 ‘João prevented his daughters from eating the soup.’

In very general terms, these verbs are typically preceded by a determiner phrase (DP) (in this case, DP1) and followed by another DP (DP2), which is itself followed by an infinitive, in some cases preceded by a preposition (or a preposition-like element) – the preposition is absent in Type A causatives, being present in the case of Type B causatives and object control structures. Considering semantics, these verbs can be taken to express a causative meaning – as for *impedir* ‘prevent’, it can also be taken to express a causative meaning if ‘causing’ includes both ‘helping’ and ‘hindering’ (Talmy 1988). More importantly, and as a related property, except for the causative *mandar* ‘order’, which will be our focus in Section 4.3, these verbs share the possibility of an implicative reading – at least a reading as a one-way implicative, in the sense of Karttunen (2012). This means that the verb entails the truth of its complement under one polarity – in general, the implicative causatives we have mentioned entail the truth of the complement under positive polarity, with the exception of *impedir* ‘prevent’, a negative implicative which, when also under positive polarity, entails the falsity of its complement. We develop the issue in Section 2.

The implicative interpretation is particularly relevant here, since it was associated, in the case of control structures, to a specific syntactic derivation. Landau (2015) argues that some object control verbs, which are not attitude verbs and are associated to an implicative interpretation, take a small clause as an internal argument and display a particular type of control: predicative control. The implicative entailment in the case of predicative control

¹ The Causer in sentences with *deixar* ‘let’ may have an intentional or a non-intentional component, a fact already noted by Kayne (1975) for the French equivalent (*laisser*). Although this is a relevant distinction to discuss whether those interpretations correspond to different syntactic structures or not (see, a.o., Kayne 1975, and the overview in Raffy, Donazzan & von Heusinger 2024), we will not develop this issue here, since it is irrelevant to our study.

would be a consequence of the fact that in this case control would correspond to direct predication (this is more clearly stated in Landau 2021). This kind of analysis of implicative object control verbs assumes that they are not truly ditransitive, what would place them closer to syntactic causatives.² Interestingly, Landau (2015) also argues that predicative control is compatible with a [-human] PRO – and the possibility of a [-human] or [-animate] DP2 in the structures in (1) to (3) will be relevant in the present study.

In this paper, we intend to discuss the nature of the syntactic structure projected by implicative object control verbs, further exploring similarities and differences between these verbs and syntactic causatives. We will show that the distribution and the interpretation of inflected infinitives in EP play a central role in the discussion, signalling different syntactic structures.

The structure of this paper is as follows. Section 2 presents a general description of the syntactic and semantic properties of three classes of verbs that share a causative meaning, highlighting relevant similarities; Section 3 further explores the comparison between the three classes of verbs, (i) showing that implicative object control verbs contrast with non-implicative object control verbs in their syntactic proximity with syntactic causatives and (ii) suggesting a duality of behaviour in the case of implicative object control verbs that correlates with the possibility of two different argument structures; finally, Section 4 defines the syntactic ambiguity of structures with implicative object control verbs, explains this syntactic ambiguity, and establishes a difference between these structures and the understudied Type B causatives – the behaviour of the inflected infinitive is a central piece of the argumentation. Section 5 concludes the discussion.

2. Syntactic causatives and object control verbs: Defining the structures under discussion

Causative sentences express a situation in which a relation between cause and effect may be identified. Although the expression of causation is typically associated to verb forms, different devices can be used to obtain that meaning, which gives rise to the following classical types of causatives: (i) morphological causatives, if causation is expressed by a bound morpheme – a causative affix – that combines with a verb root (e.g. Baker's 1988 synthetic languages); (ii) lexical causatives, if causation is conveyed by a verb lacking any causative morpheme but expressing itself the CAUSE meaning – typically change-of-state predicates, such as *derreter* 'melt' (Haspelmath 1993, Levin & Rappaport Hovav 1995), some of which undergo verb alternations; and (iii) syntactic causatives, characterized by the occurrence of a causative verb – thus, the causative marker is a free form – which introduces a second event also including a verb form. In EP, as in the other Romance languages and in English, only lexical and syntactic causatives are available.

In the present work, we will set aside morphological and lexical causatives and focus on three types of verbs in EP that exhibit some syntactic similarities and express some kind of causation: (i) Type A causatives *deixar* 'let', *fazer* 'make', and *mandar* 'order / make', see (1); (ii) Type B causatives *deixar a* 'put to' / 'make' and *pôr a* 'put to' / 'make', see (2); and (iii) a subset of object control verbs, namely, those that display an implicative reading such as *obrigar* 'force', *forçar* 'force', and *impedir* 'prevent', see (3). Type A causatives correspond

² We use ditransitive to generally refer to verbs taking two internal arguments.

to typical syntactic causatives and have been widely discussed (see seminal work by Kayne 1975, Burzio 1986, Guasti 1993; for EP, see Raposo 1981; Gonçalves 1999, 2002). On the contrary, reference to what we call here Type B causatives is scarce in the literature, with *pôr a* ‘put to’ / ‘make’ sometimes analysed as an object control verb (see Raposo 1989: 302n20, for a brief reference to these verbs, and Agostinho 2014, Agostinho, Santos & Duarte 2018 for the analysis of *pôr a* as part of the group of object control verbs) or being more recently associated to causatives with a change of location meaning, a ‘locative causative’ (Soares & Wood 2021, 2022).

The three classes of verbs occur as V in the string [DP1 V DP2 Vinf], Vinf being an infinitival form of a verbal predicate selecting for its own arguments, and DP2 corresponding to what has been called causee in the context of syntactic causatives (4) and controller in the case of object control verbs (6) – therefore, in this paper, we will use the label DP2 to avoid choosing between the term controller or causee before we have determined the underlying structure we are dealing with (object control or other). The infinitival domain is introduced by a preposition-like element in the case of Type B and object control verbs (5, 6), and a third plural inflected infinitive matching DP2 in person and number features is allowed across the three classes of verbs under discussion:

- (4) (a) O João deixou as crianças / as maçãs caírem.
the João let the children / the apples fall.INF.3PL
‘João let the children / the apples fall.’
(b) O João / o vento fez as crianças / as maçãs caírem.
the João / the wind made the children / the apples fall.INF.3PL
‘João / the wind made the children / the apples fall.’
(c) O João mandou os filhos dormirem.
the João ordered the children sleep.INF.3PL
‘João ordered his children to sleep.’
- (5) (a) O pai / o medicamento deixou os bebés a dormirem.
the father / the medicine made the babies A sleep.INF.3PL
‘The father / the medicine made the babies sleep.’
(b) O pai / o medicamento pôs os bebés a dormirem.
the father / the medicine put the babies A sleep.INF.3PL
‘The father / the medicine put the babies to sleep.’
- (6) O João obrigou as filhas a comerem a sopa.
the João forced the daughters A eat.INF.3PL the soup
‘João forced his daughters to eat the soup.’

In what concerns the Case of DP2 in the context of inflected infinitives, a contrast is observed between Type A causatives and the two other verb classes under discussion: Whereas DP2 generally exhibits nominative under Type A causatives (7a), it exhibits accusative under Type B causatives and object control verbs (8, 9). However, the possibility of an accusative DP2 co-occurring with the inflected infinitive under Type A causatives (7b) has been equally noticed, and it is reported to be widely accepted, even if not described in grammars considering the standard variety (see Hornstein, Martins & Nunes 2008; Martins 2018; Barbosa, Flores & Pereira 2018; Cardoso 2021).

- (7) (a) O João deixou elas caírem.
 the João made they.NOM fall.INF.3PL
 ‘João made them fall.’
 (b) O João deixou-as caírem.
 the João made-CL.3PL.ACC fall.INF.3PL
 ‘João made them fall.’
- (8) (a) O pai / o medicamento deixou-os a dormirem.
 the father / the medicine made-CL.3PL.ACC A sleep.INF.3PL
 ‘The father / the medicine made them sleep.’
 (b) O pai / o medicamento pô-los a dormirem.
 the father / the medicine put-CL.3PL.ACC A sleep.INF.3PL
 ‘The father / the medicine put them to sleep.’
- (9) O João obrigou-as a comerem a sopa.
 the João forced-CL.3PL.ACC A eat.INF.3PL the soup
 ‘João forced them to eat the soup.’

In the context of uninflected infinitive, DP2 exhibits accusative Case and cliticizes into V, the matrix verb, across the three classes of verbs:

- (10) O João deixou-as cair.
 the João let-CL.3PL.ACC fall.INF
 ‘João let them fall.’
- (11) (a) O pai / o medicamento deixou-os a dormir.
 the father / the medicine made-CL.3PL.ACC A sleep.INF
 ‘The father / the medicine made them sleep.’
 (b) O pai / o medicamento pô-los a dormir.
 the father / the medicine put-CL.3PL.ACC A sleep.INF
 ‘The father / the medicine put them to sleep.’
- (12) O João obrigou-as a comer a sopa.
 the João forced-CL.3PL.ACC A eat.INF the soup
 ‘João forced them to eat the soup.’

Sentences including Type A and Type B causatives express a cause-effect relation, as expected according to the classical definition of causation. However, it is important to establish a distinction between the status of *pôr a* ‘put to’ in the structures we are considering here (and which we take to be ‘ordinary causatives’) and what Soares & Wood (2021, 2022) called ‘locative causatives’, that is, causatives that entail the change of location of the theme. As shown in (13), *pôr a* ‘put to’ can indeed maintain a locative meaning, more obvious in (13b), with what Soares & Wood call embedded passive Voice (a case in which the embedded theme occurs as causee), along with *ir* ‘go’ (14), which they classify as an intransitive locative causative – examples (13) and (14) are taken from Soares & Wood (2021). As shown in (15), *deixar a* (now with a meaning closer to ‘leave’, therefore with locative meaning) can also have the same interpretation of a locative causative, even though this was unnoticed by Soares & Wood (whether other verbs also belong to the same class is open to future discussion).

- (13) (a) Pus o polícia a lavar a roupa.
 put.1SG the police officer A wash.INF the clothes
 ‘I made the police officer wash the clothes.’
 (Soares & Wood 2021: 213)
- (b) Pus a roupa a lavar.
 put.1SG the clothes A wash.INF
 ‘I put the clothes to wash.’ (Soares & Wood 2021: 215)
- (14) A roupa foi a lavar.
 the clothes went.3SG A wash.INF
 ‘The clothes were put to wash.’ (Soares & Wood 2021: 213)
- (15) Deixei o polícia a pensar no assunto.
 left.1SG the police officer A think PREP.the matter
 ‘I left the police officer to consider the matter.’
- (16) (a) Esse produto pôs / deixou a árvore a morrer.
 that product put / made the tree A die.INF
 ‘That product made the tree die.’
- (b) O calor pôs / deixou a manteiga a derreter.
 the heat put / made the butter A melt.INF
 ‘The heat made the butter melt.’

If we now consider again (11), or (5), we can see that the change of location meaning is not necessarily maintained in these cases – and in (11a) or (5a) *deixar a* corresponds to ‘put to’ / ‘make’.

In addition, Soares & Wood (2022) argue that locative causatives do not accept unaccusative embedded predicates, contrary to what happens with ordinary causatives. As we can see in (16), unaccusative predicates are perfectly acceptable under *pôr a* and *deixar a* in sentences in which a change of location meaning is not maintained:

Finally, a difference that was not noticed by Soares & Wood (2022) concerns the thematic role of the external argument of the causative verb: Whereas in the locative causative examples presented by Soares & Wood *pôr a* always takes a [+ human] external argument, therefore an argument filling the requirements of agenthood, the type of causative structures we are interested in (i.e. ordinary causatives) occur with a matrix external argument with a Causer thematic role: As seen in (16) as well as in (11) or (5), *pôr a* or *deixar a* accept a [-animate] subject, a case in which indeed the locative meaning cannot be maintained. Therefore, we believe to have established that we are not dealing in this paper with locative causatives but with ordinary causatives. Type B causatives, as defined here, are ordinary causatives, which do not necessarily preserve any form of locative meaning and, to this extent, seem to be more semantically bleached than locative causatives.

We should now consider object control verbs and their possible causative interpretation. A cause-effect relation is not necessarily established in the context of all object control verbs: It is expressed in the context of *obrigar* ‘force’, *forçar* ‘force’, *impedir* ‘prevent’, *convencer* ‘convince’, or *persuadir* ‘persuade’ but not in the context of e.g. *acusar* ‘accuse’. However, the subset of object control verbs we are analysing along with Type A and Type B causatives has a causative interpretation and, in addition, these verbs are one-way implicatives in the sense of Karttunen (2012) – see Landau (2015), who explores this class of verbs, and Santos

(2023), who discusses the relevance of the class in EP. Being implicatives, ‘[a]n asserted main sentence with one of these verbs as predicate commits the speaker to an implied proposition which consists of the complement sentence’ (Karttunen 1971: 340); being one-way implicatives, these verbs entail the truth or the falsity of the infinitival complement only under one polarity (Karttunen 2012: 124). The object control verbs *obrigar* ‘force’, *forçar* ‘force’, and *impedir* ‘prevent’ exhibit these properties. Consider (17):

- (17) O João obrigou as filhas a comer a sopa.
 the João forced the daughters A eat.INF the soup
 ‘João forced his daughters to eat the soup.’

In EP, the implicative verb *obrigar* ‘force’ entails the truth of the embedded sentence under positive polarity: The fact that João forced his daughters to eat the soup entails that they ate the soup. This is why the continuation of (17) cannot be the one in (18) – see Santos (2023) and the examples therein.

- (18) #mas elas não comeram porque desmaiaram antes.
 but they NEG ate because fainted before
 ‘but they didn’t eat it because they fainted before that.’

In this respect, the implicative verb *obrigar* ‘force’ contrasts with object control verbs that have a causative meaning but are not implicative, such as *convencer* ‘convince’ or *persuadir* ‘persuade’, as Santos (2023) notes.

- (19) O Rui convenceu / persuadiu a Ana a comer a feijoada
 the Rui convinced / persuaded the Ana PREP eat.INF the bean stew
 (mas ela não comeu, porque desmaiou antes).
 but she NEG ate because fainted before
 ‘Rui convinced / persuaded Ana to eat the bean stew (but she did not eat it, because she fainted before that).’ (Santos 2023: 23)

In this context, the control verb does not entail the embedded proposition: In fact, ‘as a result of Rui’s action, Ana at some point made the decision of eating the bean stew, but this does not entail that Ana did eat the bean stew’ (Santos 2023: 22).

According to Landau (2021), the implicative and the non-implicative interpretation are directly related to syntax, the former being the result of a predicative structure and of predicative control. Predicative control contrasts with cases of logophoric control, in line with the duality of control mechanisms proposed in Landau (2015). Landau claims that in predicative control (as in the case of implicative control verbs such as *obrigar* ‘force’), the verb selects for a small clause, projected by a predicative head, the controller being the subject of this projection and the infinitival clause occupying the predicate position (the complement of the predicative head); in this case, the verb seems to combine with a single internal argument and we would say that it is, to this extent, closer to a syntactic causative. As for logophoric control, as under non-implicative verbs such as *convencer* ‘convince’, control does not result from predication. In Landau’s proposal, the difference in the syntactic structure triggers the difference in interpretation, to the extent that the implicative meaning results from predication. A relevant question is whether the close correspondence between

semantics and syntax, which is suggested by Landau, obtains with the set of EP verbs we are analysing.

Given the general similarities between object control verbs and syntactic causatives, which may justify the different classifications in previous literature of what we call here Type B causatives, it is important to proceed to a more fine-grained comparison. The next subsection develops the issue and considers evidence allowing to identify control verbs.

3. Syntactic causatives and implicative object control verbs: Similarities and differences

In the present subsection, we explore the behaviour of Type A and Type B causatives as well as object control verbs, aiming at establishing the singularity of the subclass of implicative object control verbs. When doing this, we especially focus on aspects of their behaviour that point to differences in the number of internal arguments (one or two internal arguments) and which define the hallmarks of control structures.

One first piece of the argumentation is the possibility of an inanimate DP2. As we can see in (20), the Type A causatives *deixar* ‘let’ and *fazer* ‘make’ (20a), and Type B causatives (20b), allow an inanimate DP in this position, as well as an animate DP, as already illustrated in (4) and (5) above.

- (20) (a) O João deixou / fez a porta bater.
 the João let / made the door slam.INF
 ‘João let /made the door slam.’
 (b) O João / o vento deixou / pôs a porta a bater.
 the João / the wind made / put the door A slam.INF
 ‘João made the door slam.’

Interestingly, in the case of object control verbs, different behaviours are observed in the case of implicative (21a, b) and non-implicative verbs (21c): Whereas implicative object control verbs, here represented by *obrigar* ‘force’ and *impedir* ‘prevent’, pattern with syntactic causatives, allowing an inanimate DP2 (as well as an animate DP2), non-implicative object control verbs, represented by *convencer* ‘convince’, do not allow an inanimate DP2, i.e. an inanimate controller, independently of the animacy of the external argument of the verb, as shown in (21c).

- (21) (a) O vento obrigou a porta a bater.
 the wind forced the door A slam.INF
 ‘The wind forced the door to slam.’
 (b) O vento impediu a porta de bater.
 the wind prevented the door DE slam.INF
 ‘The wind prevented the door from slamming.’
 (c) *O vento / o João convenceu a porta a bater.
 the wind / the João convinced the door A slam.INF

At the very least, these facts allow us to conclude that implicative object control verbs do not semantically restrict the DP2, in contrast with non-implicative object control verbs.

Landau (2015) has already noticed that predicative control (the type of control he associates with implicative control verbs) is compatible with a [-human] PRO, an issue we will come back to.

The set of examples in (21) also suggests the relevance of exploring the properties of DP1, the matrix external argument: Whereas implicative object control verbs (*obrigar* ‘force’, *impedir* ‘prevent’) allow a [-animate] external argument, non-implicative object control verbs do not allow the same type of subject; see the grammaticality of (21a, b) vs. (21c) and (22).³

- (22) *O vento / *o barulho convenceu o João a ir embora.
the wind / the noise convinced the João A leave.INF

Another important contrast concerns the availability of expletives in the embedded subject position. In principle, we take the controller to be an argument of the control verb, from which it gets a theta role. We, therefore, do not expect to find expletives as controllers and we do not expect a controlled subject to be an expletive. It is therefore interesting to note that, along with Type A causatives (23a), but not with Type B causatives (23b), *obrigar* ‘force’ and *impedir* ‘prevent’ can effectively take an infinitival complement with an expletive subject, in the context of an embedded weather verb (23c, d). Implicative object control verbs also contrast with the non-implicative *convencer* ‘convince’ (23e), independently of the animacy of the matrix subject. In (23c, d), *obrigar* ‘force’ and *impedir* ‘prevent’ seem to select a single internal argument, in this case a clause with an expletive subject. The meaning of *obrigar* or *impedir* in this type of context, possible with a [-animate] subject, seems to be somehow bleached.

- (23) (a) A alta pressão não deixa / faz chover.
the high pressure NEG let / make rain.INF
‘The high pressure doesn’t let / make it rain.’
(b) *A alta pressão não deixa a chover.
the high pressure NEG make A rain.INF
‘The high pressure doesn’t make it rain.’
(c) A baixa pressão não obriga a chover.
the low pressure NEG force A rain.INF
‘The low pressure does not force it to rain.’
(d) A alta pressão não impede de chover.
the high pressure NEG prevent DE rain.INF
‘The high pressure does not prevent it from raining.’
(e) *A baixa pressão / o feiticeiro não convence a chover.
the low pressure / the sorcerer NEG convince A rain.INF

This observation leads to two further observations concerning the behaviour of *obrigar* ‘force’ and verbs of the same type, in contrast to object control verbs such as *convencer* ‘convince’, one regarding the argument structure of the verbs and a related observation

³ The sentence in (22) may be accepted by some speakers with a meaning distinct from the original meaning of the object control verb and closer to the meaning of a syntactic causative, e.g. ‘the wind made J. leave’. We will come back to this issue on Section 4.

concerning their compatibility with complements containing an expletive subject in an existential structure.

There has been some discussion on the possibility of omitting a controller with an object control verb. Landau (2015) argues that only predicative control (which he associates with implicative control verbs) is incompatible with an implicit controller – the possibility of an implicit controller with non-implicative object control verbs would be subject to variation defined by languages and verbs. However, the discussion should not only focus on the distinction between implicative and non-implicative interpretations; in fact, the sentences in (23c, d) also allow the observation that implicative object control verbs have a transitive counterpart, i.e. the verb takes a single internal argument, and in these cases, we would not be dealing with a case of implicit controller. This transitive structure is the structure compatible with a finite complement clause: As shown by Santos (2023), a verb such as *obrigar* ‘force’ cannot occur as ditransitive with a non-controlled, namely finite, complement. In (24) we reproduce Santos’ examples and in (25) we present a similar example, taken from the online press.

- (24) (a) *O diretor obrigou o subdiretor a que o funcionário
the director forced the subdirector PREP COMP the worker
declarasse os rendimentos.
declare.SUBJ.3SG the income
- (b) A lei obriga a que os cidadãos declarem
the law forces PREP COMP the citizens declare.SUBJ.3PL
os rendimentos.
the income
‘The law compels the citizens to declare their income.’ (Santos 2023: 29)
- (25) A alteração à lei obriga a que todos os que têm armas
the amendment to.the law forces A COMP all the who have weapons
em casa as guardem num cofre ou num armário não portátil.⁴
at home CL.3PL.ACC keep in.a safe or in.a cabinet non portable
‘The amendment to the law requires everyone who has weapons at home to keep them
in a safe or a non-portable cabinet.’

Moreover, Santos (2023) extensively argues that an inflected infinitive with a non-controlled subject is impossible under an implicative object control verb, such as *obrigar* ‘force’, when the DP2 position, i.e. the position of an object controller, is filled (see 26). As shown by the indices in (26), the inflected infinitive cannot take as subject a non-controlled *pro*, which gets its interpretation from discourse. Apparently, a non-controlled inflected infinitive is possible under the transitive counterpart of the verb, i.e. when the verb takes a single internal argument, in this case a non-finite clause, as in (27) – even if only possible with subject-verb inversion.

- (26) ??/*O diretor_i obrigou o professor_j a _____k entregarmos os

⁴ <https://sicnoticias.pt/pais/2021-02-22-Lei-obriga-a-cofre-ou-armario-nao-portatil-para-quem-tem-armas-em-casa, 22-2-2021>

the director forced the teacher PREP deliver.INF.1PL the
 projetos finais só no fim do período.
 projects final only at.the end of.the term (Santos 2023: 13)

- (27) A lei obriga a declararem os cidadãos os rendimentos.
 The law forces A declare.INF.3PL the citizens the income
 ‘The law compels the citizens to declare their income.’

This contrasts with the behaviour of the non-implicative object control verb *convencer* ‘convince’, which allows the occurrence of a finite complement in a ditransitive structure (28), as well as of a non-controlled infinitive in the same structure (29) (as shown by Barbosa 2021, and also by Santos 2023):

- (28) O Jorge convenceu a mãe a que os avós
 the Jorge convinced the mother A COMP the grandparents
 vendessem os quadros ao museu.
 sell.SBJV.3SG the paintings to.the museum
 ‘Jorge convinced his mother to bring it about that the grandparents sell the paintings to the museum.’ (Santos 2023: 28)

- (29) O diretor_i convenceu o professor_j a _k entregarmos os projetos
 the director convinced the teacher A deliver.INF.1PL the projects
 finais só no fim do período.
 final only at.the end of.the term
 ‘The director convinced the teacher to bring it about that we deliver the final projects only at the end of the term.’ (Santos 2023: 13)

Let us now turn to the possibility of expletives under these verbs. In what follows, we explore structures with an embedded existential verb. As shown in (30a–c), an embedded expletive is acceptable with the transitives *obrigar* ‘force’ and *impedir* ‘prevent’ but not when the verb occurs in sentences compatible with an analysis of the verb as ditransitive, i.e. in cases in which there is a DP₂; in contrast, as shown in (30d, e), an embedded expletive is compatible with an explicit direct object in the case of *convencer* ‘convince’. As a side note, we see that the contrast between (30a) and (30d, e) is also due to the fact that the transitive counterpart of *obrigar* ‘force’ is compatible with an inanimate DP₁ – *the law*, in (30a) – but *convencer* ‘convince’ is not (30d).

- (30) (a) A lei obriga (*a diretora) a haver duas auxiliares por sala
 the law forces the director A be.INF two assistants per room
 na creche.
 in.the nursery school
 ‘The law determines that there must be two assistants per room at nursery school.’
 (b) O presidente obrigou (*a diretora) a haver duas auxiliares por sala.
 the president forced the director A be two assistants per room
 ‘The president determined that there must be two assistants per room.’
 (c) Isso não impede (*os serviços) de haver verificações ocasionais.

that NEG prevent the services DE be.INF verifications occasional
 ‘This does not prevent occasional verification procedures.’

- (d) ??/* A lei convence (a diretora) a haver duas auxiliares por sala
 the law convinces the director A be.INF two assistants per room
 na creche.
 in.the nursery school
 ‘The law convinces the director to bring it about that there are two assistants
 per room at nursery school.’
- (e) O presidente convenceu a diretora a haver duas auxiliares por sala
 the president convinced the director A be.INF two assistants per room
 na creche.
 in.the nursery school
 ‘The president convinced the director to bring it about that there are two assistants
 per room at the nursery school.’

The data presented until now suggest that implicative verbs such as *obrigar* ‘force’ and *impedir* ‘prevent’ may behave as transitive (i.e. they may select a single internal argument) – therefore, they are closer to syntactic causatives. As for *convencer* ‘convince’ and similar non-implicative verbs, they occur with two internal arguments, one of the arguments corresponding to an embedded clause whose subject is not necessarily controlled. This explains the case of the embedded finite clause in (28) or the case of the embedded infinitive with an expletive subject (30e).⁵

An important piece of evidence supporting the transitive behaviour of implicative verbs generally included in the class of object control verbs comes from the fact that they can occur in *faire*-Inf constructions. Kayne (1975) has shown that French causatives, namely *faire* ‘make’, can occur in constructions in which the causative and the embedded verb (the latter in the infinitive) are adjacent, and in which the causee may occur as a dative (if the embedded verb is transitive): the *faire*-Inf construction. Raposo (1981) and Gonçalves (1999) have shown the availability of *faire*-Inf in EP under what we call here Type A causatives (see 31a) – clitic climbing is the result of complex predicate formation. As we now show, *faire*-Inf is also available under implicatives, such as *obrigar* ‘force’ and *impedir* ‘prevent’ (31c, d), but not under Type B causatives (31b) and non-implicative object control verbs, such as *convencer* ‘convince’ (31e). We extend the term *faire*-Inf to contexts of object control verbs in the sense that the argument structure of the embedded verb is somehow reanalysed. Our examples only include embedded transitive contexts, since the occurrence of the dative (signalled by the dative marker *a* preceding the DP *os meninos* ‘the children’) makes *faire*-Inf more visible.

- (31) E a sopa?
 and the soup
 ‘What about the soup?’
- (a) O João não a deixou comer aos meninos.
 the João NEG CL.3SG.ACC let eat.INF to.the children
 ‘João didn’t let the children eat it.’
- (b) *O João não a pôs a comer aos meninos.

⁵ In all cases, we assume the embedded expletive to be null, an option ruled out in English.

- the João NEG CL.3SG.ACC put A eat.INF to.the children
- (c) O João não a obrigou a comer aos meninos.
the João NEG CL.3SG.ACC forced A eat.INF to.the children
'João didn't force the children to eat it.'
- (d) O João não a impediu de comer aos meninos.
the João NEG CL.3SG.ACC prevented DE eat.INF to.the children
'João didn't prevent the children from eating it.'
- (e) *O João não a convenceu a comer aos meninos.
the João NEG CL.3SG.ACC convinced A eat.INF to.the children

We can show that what we see under Type A causatives and under *obrigar* 'force' is truly a case of *faire*-Inf, by showing that the dative-marked DP2 in (31) (*aos meninos* 'to the children') is not an argument of the matrix verb: As we can see in (32), this DP cannot be left stranded when the embedded predicate is clefted; in contrast, when we have a matrix ditransitive such as *permitir* 'allow', as in (33), it is possible to cleft the embedded infinitival clause leaving the dative stranded.

- (32) (a) *Foi a comer a sopa que ele obrigou aos meninos.
was A eat.INF the soup that he forced to.the children
(b) *Foi comer a sopa que ele deixou aos meninos.
was eat.INF the soup that he let to.the children
- (33) Foi comer a sopa que ele permitiu aos meninos.
was eat.INF the soup that he allowed to.the children
'It was eating the soup that he allowed the children to do.'

The behaviour of the implicatives *obrigar* 'force' and *impedir* 'prevent', which was described until this point, suggests the proximity between these verbs and syntactic causatives, namely Type A causatives. Some of these data suggest that the implicative object control verbs behave, at least in certain structures, as transitives, i.e. they select a single internal argument. A transitive analysis of these verbs is to a certain extent compatible with Landau's (2015) analysis of implicative object control verbs as verbs that take as complement a projection of a predicative head, or a Relator (Rel) (in the sense of Den Dikken 2006), with the object controller and the infinitive occupying the subject and the predicate positions of a small clause, respectively.

However, the more detailed observation of inflected infinitives under these verbs reveals an important difference between syntactic causatives and object control verbs: The difference concerns the possibility of occurring with an embedded inflected infinitive mismatching DP2 in number features. As shown in (34), this mismatching inflected infinitive is not possible under Type A or Type B causatives (34a, b) but it is possible under implicative (34c, d) as well as under non-implicative object control verbs (34e).

- (34) (a) *O João deixou a Ana irem ao cinema.
the João let the Ana go.INF.3PL to.the cinema
(b) *O João deixou / pôs o bebé a dormirem.
the João put / put the baby A sleep.INF.3PL
(c) O João_i obrigou a Ana_j a ____{i+j/*w} irem ao

the João forced the Ana A go.INF.3PL to.the
cinema (juntos).
cinema (together)

‘João forced Ana to go to the cinema with him / together.’

- (d) O João_i impediu a Ana_j de $\text{---}_{i+j/*w}$ irem ao
the João prevented the Ana DE go.INF.3PL to.the
cinema (juntos).
cinema (together)

‘João prevented Ana from going to the cinema with him / together.’

- (e) O João_i convenceu a Ana_j a $\text{---}_{i+j/j+.../k}$ irem ao cinema.
the João convinced the Ana A go.INF.3PL to.the cinema
‘João convinced Ana to go to the cinema with him / to go to the cinema with
someone else / to bring it about that someone goes to the cinema.’

The difference between implicative and non-implicative object control verbs in this case concerns the interpretation of the embedded subject. Under implicative object control verbs, and as shown by the indices, the non-controlled reading is not available, only a split control reading is obtained – in the case of split control, the reference of the controlled subject ‘is exhausted by the matrix arguments – but it is split between them’ (Landau 2013: 172). This reading is made more salient by the occurrence of *juntos* ‘together’ in the sentence, even though the reading does not depend on it. Split control is an instance of control, and the inflected infinitive under these verbs is therefore obligatorily controlled (Santos 2023). Under non-implicative object control verbs, the inflected infinitive is not controlled (Barbosa 2021, Santos 2023) – as we can see in (34e), the interpretation of the embedded subject can be free and we can interpret the sentence as meaning that João convinced Ana to bring it about that someone else will go to the cinema, an interpretation that is more easily available with a richer discourse context from which the reference of the embedded subject can be recovered.

Since Landau (2015, 2021) associates a predicative syntactic structure to the implicative reading, it is important to note that the mismatching inflected infinitive in (34c, d) does not block this implicative interpretation (see 35), even though a mismatching inflected infinitive (and a split control reading) would not be expected in a predicative analysis of control, as we will discuss in the next subsection.

- (35) (a) O João_i obrigou a Ana_j a ---_{i+j} irem ao cinema (juntos)
the João forced the Ana A go.INF.3PL to.the cinema (together)
(*mas eles acabaram por não ir.)
but they ended up POR NEG go.INF
‘João forced Ana to go to the cinema with him, *but they ended up not going.’
(b) O João_i impediu a Ana_j de ---_{i+j} irem ao cinema (juntos)
the João prevented the Ana DE go.INF.3PL to.the cinema together
(*mas eles acabaram por ir.)
but they ended up POR go.INF
‘João prevented Ana from going to the cinema with him, *but they ended up going.’

As an outcome of the facts presented in this subsection, we have a complex scenario concerning the behaviour of implicative object control verbs: Even though they exhibit properties that place them closer to syntactic causatives than to non-implicative object control verbs (namely, by allowing a [-animate] DP2 and embedded expletives, by occurring in transitive structures and by allowing *faire*-Inf), they retain the possibility of licensing split readings of inflected infinitives, what we will take to be a central property in the discussion. In the next subsection, we develop the discussion of these properties.

4. Towards an analysis: Syntactic causatives and the syntactic ambiguity of implicative object control verbs

In this subsection, we argue for the syntactic ambiguity of implicative object control verbs. We propose that the verbs *obligar* ‘force’, *forçar* ‘force’, and *impedir* ‘prevent’ have ditransitive and transitive counterparts and that most structures in which they occur are ambiguous. We also argue that a mismatching inflected infinitive with a split control reading (i.e. a plural embedded inflected infinitive in a structure with a singular object controller) is the relevant piece of evidence allowing to disambiguate between the two structures. Moreover, we argue that Type B causatives select a single internal argument, a small clause, and that we observe control internally to the complement.

In general, by considering the syntactic ambiguity of implicative control verbs and observing their stable implicative interpretation, we argue for the independence between the implicative reading and the syntactic structure at stake. A final note on the syntactic causative *mandar* ‘order’, which illustrates a diachronic shift from a ditransitive structure to a transitive causative one, will allow us to further argue for the independence of the syntactic and semantic domains in the area of causatives.

4.1. Explaining the syntactic ambiguity of implicative object control verbs

Perlmutter (1970), in a seminal work on the syntax of *begin*, claims that there are two verbs *begin*, one selecting a single argument and another selecting two arguments and behaving as what we would treat as a control verb (we are abstracting away the specific syntactic analysis suggested in Perlmutter’s paper). Only the control verb would impose an animacy restriction to the subject that it occurs within surface structure. In more recent work on the acquisition of control and raising predicates, Becker (2014) argues for the relevance of animacy as a cue in the acquisition of control vs. raising structures, with a [-animate] subject signalling a raising predicate. The discussion that we will take in this subsection is in line with these two insights.

In a different framework, Jackendoff & Culicover (2003: 538–539) argue that some force-dynamic predicates, which include predicates of causing, preventing, enabling, and helping, can correspond not only to the basic semantic configuration in (36a) but also to the configuration in (36b). In the latter case, ‘the subject is not acting on anything, it is just causing or preventing an event pure and simple’ (Jackendoff & Culicover 2003: 539). According to this proposal, this would provide an explanation for the possibility of (37), in which the expletive is necessarily not an argument of the matrix verb, and the verb, which is usually a control verb, behaves here as closer to raising-to-object / Exceptional Case Marking (ECM) verbs.

- (36) (a) $XCS Y^{\alpha} [\alpha ACT]$
 (b) $XCS [EVENT]$

(37) Bill prevented there from being an explosion. (Jackendoff & Culicover 2003: 539)

In this subsection, we aim at arguing that implicative object control verbs indeed have a transitive (non-control) counterpart and that this explains part of their apparently special behaviour. The object control verb counterpart is ditransitive, i.e. with two internal arguments. Considering the behaviour of inflected infinitives is a cornerstone of the argumentation in this regard, the facts concerning animacy restrictions on DP2 and DP1 will be shown to follow from the analysis.

In the previous subsection, we have seen that implicative object control verbs allow inflected infinitives mismatching the number features of the DP2, a case in which we obtain a split control reading (a non-controlled reading is not available). The relevant examples are reproduced here:

- (38) (a) O João_i obrigou a Ana_j a $\text{---}_{i+j/*w}$ irem ao cinema.
 the João forced the Ana A go.INF.3PL to.the cinema
 'João forced Ana to go to the cinema with him.'
 (b) O João_i impediu a Ana_j de $\text{---}_{i+j/*w}$ irem ao cinema.
 the João prevented the Ana DE go.INF.3PL to.the cinema
 'João prevented Ana from going to the cinema with him / together.'

In the case of a split control reading, both the matrix subject and the matrix object act as controllers. The fact that the split reading is obtained (contrary to what is predicted by Landau 2015) is already a counterargument to the analysis of the control relation in (38) as resulting from a structure in which control corresponds to predication, with DP2 as the subject of an embedded small clause containing the infinitive: In that case, only the DP2 could be interpreted as the subject of the infinitive. To that extent, we take split control to signal a ditransitive structure.

In the previous subsection, we have equally shown that this group of verbs can occur in *faire*-Inf configurations. Independently of the analysis of *faire*-Inf, which we will not discuss here, we expect it to affect the argument structure of the embedded predicate, with the external argument of this embedded predicate surfacing as a dative if the verb is transitive. Therefore, when *faire*-Inf occurs, the DP2 must be an argument of the embedded predicate and the structure cannot be ditransitive. A prediction follows: *faire*-Inf and split control should be incompatible. In (39) we show that this prediction is borne out.

- (39) (a) O Pedro_i (não) obrigou a prima_j a ---_{i+j} comerem a
 the Pedro NEG forced the cousin A eat.INF.3PL the
 feijoada toda.
 bean stew all.FEM
 'Pedro didn't force / forced his cousin to eat all the bean stew (together).'
 (b) O Pedro não a obrigou a comer à prima.
 the Pedro NEG CL.3SG.ACC forced A eat.INF to.the cousin
 'Pedro didn't force his cousin to eat it.'
 (c) *O Pedro não a obrigou a comerem à prima.
 the Pedro NEG CL.3SG.ACC forced A eat.INF.3PL to.the cousin

Faire-Inf is in general unavailable with inflected infinitives, even if not mismatching the number features in the DP2 (40), as we can see by testing syntactic causatives (41).

- (40) (a) O Pedro (não) obrigou as primas a comerem a feijoada toda.
 the Pedro NEG forced the cousins A eat.INF.3PL the bean stew all.FEM
 ‘Pedro didn’t force / forced his cousins to eat all the bean stew.’
 (b) O Pedro não a obrigou a comer às primas.
 the Pedro NEG CL.3SG.ACC forced A eat.INF to.the cousins
 ‘Pedro didn’t force his cousins to eat it.’
 (c) *O Pedro não a obrigou a comerem às primas.
 the Pedro NEG CL.3SG.ACC forced A eat.INF.3PL to.the cousins
- (41) (a) O Pedro não deixou / fez as primas comerem a
 the Pedro NEG let / made the cousins eat.INF.3PL the
 feijoada toda.
 bean stew all.FEM
 ‘Pedro didn’t let / make the cousins eat all the bean stew.’
 (b) *O Pedro não a deixou / fez comerem às primas.
 the Pedro NEG CL.3SG.ACC let / made eat.INF.3PL to.the cousins

We do not develop this issue here. For the goals of the paper, it will be enough to state that the infinitival domains under causative verbs, particularly, Type A causatives, as in (41), have been described by using a scale of defectivity: *faire-Inf* is the most defective structure, preventing the DP2 (causee) from checking nominative (cf. (31a), with a dative causee), and the inflected infinitive with a nominative subject (and necessarily showing verb-subject agreement) is the most complete domain (for EP, see Gonçalves 1999; Martins 2004, 2018). However, both structures are only accounted for if the causative is analysed as a transitive verb, i.e. if the DP2 is merged in the infinitival clause: should this DP be merged in a position external to the infinitival complement and no explanation would be available either for the nominative with the inflected infinitive or for *faire-Inf*. In contrast, an inflected infinitive mismatching the DP2 in number features is only possible if this DP is not merged as a subject of the embedded infinitive. Therefore, *faire-Inf* remains an argument in favour of a transitive analysis of the verb (DP2 merged in the embedded infinitival clause), to the same extent as inflected infinitives mismatching DP2 in number argue for a ditransitive analysis of the verb (DP2 merged as a complement of the verb; if merged as the subject of the embedded infinitive, we would expect subject-verb agreement). In this case, the so-called implicative object control verbs are behaving here as syntactic causatives, that is, as transitive verbs, when they accept *faire-Inf*, and behaving as ditransitives when they occur with mismatching infinitives and induce split control readings.

We should at this point come back to the animacy restrictions on DP2 to show how they interact with syntactic structure. We have seen in Section 2 that the so-called implicative object control verbs accept an inanimate DP2. However, mismatching inflected infinitives (and split control readings) are blocked when the DP2 is inanimate – see (42) – even though an inflected infinitive is allowed in the same context if the DP2 matches the number features in the infinitive (43).

- (42) (a) Durante o terremoto, a escada obrigou a parede a
 during the earthquake the stair forced the wall A
 ceder / *cederem.
 sag.INF / sag.INF.3PL
 ‘During the earthquake, the stair forced the wall to sag.’
- (b) Durante o terremoto, a escada impediu a parede de
 during the earthquake the stair prevented the wall DE
 ceder / *cederem.
 sag.INF / sag.INF.3PL
 ‘During the earthquake, the stair prevented the wall from sagging.’
- (43) (a) Durante o terremoto, a escada obrigou as paredes a
 during the earthquake the stair forced the walls A
 ceder / cederem.
 sag.INF / sag.INF.3PL
 ‘During the earthquake, the stair forced the walls to sag.’
- (b) Durante o terremoto, a escada impediu as paredes de
 during the earthquake the stair prevented the walls DE
 ceder / cederem.
 sag.INF / sag.INF.3PL
 ‘During the earthquake, the stair prevented the walls from sagging.’

The contrast between (42) and (43) shows that there is no general incompatibility between the inflected infinitive and an inanimate DP2; instead, there is an incompatibility between a mismatching inflected infinitive and an inanimate DP2. The explanation easily follows from the assumption of syntactic ambiguity of these structures: A mismatching inflected infinitive is only possible in a control (ditransitive) structure and is interpreted as a case of split control – this is the possibility blocked by an inanimate DP2; in contrast, the transitive counterpart of the verb, similar to a syntactic causative and thus compatible with an inanimate DP2, may take as complement an embedded inflected infinitive with a subject that necessarily matches its number features – to this extent, *obrigar* ‘force’ and *impedir* ‘prevent’ in (43) behave as the syntactic causatives in (41a).

Therefore, we argue that the verbs *obrigar* ‘force’, *forçar* ‘force’, and *impedir* ‘prevent’, i.e. the so-called implicative object control verbs, have a ditransitive counterpart, which indeed corresponds to an object control verb, and a transitive counterpart, which is similar to a syntactic causative. The ditransitive counterpart accepts mismatching infinitives with a split control reading and imposes a semantic restriction on its nominal internal argument (the DP2, in this case the object controller), which must be animate; the transitive counterpart allows *faire*-Inf – in this case, the DP2 is not selected by the matrix predicate and is therefore not subject to any semantic restrictions imposed by that predicate.

A further argument in the same sense comes from the semantic nature of DP1 (the matrix subject). As we have previously seen, the so-called implicative object control verbs accept both animate and inanimate subjects – see (21) in Section 3. As we can now see in (44), an inanimate DP1 can occur with the implicative verb in a *faire*-Inf construction; but importantly, it cannot occur with a mismatching inflected infinitive, with a split control interpretation (see 45).⁶

⁶ The fact that the DP2 in *faire*-Inf must be an agent results from restrictions to *faire*-Inf itself: The dative argument ‘must be intentional’, as stated in Folli & Harley (2007: 212).

- (44) E a sobremesa?
and the dessert
'What about the dessert?'
A dieta não a impediu de comer às tias.
the diet NEG CL.3SG.ACC prevented DE eat.INF to.the aunts
'The diet didn't prevent the aunts from eating it.'
- (45) (a) *A mota obrigou o rapaz a andarem depressa.
the motorbike forced the boy A walk.INF.3PL fast
(b) *A mota impediu o rapaz de andarem depressa.
the motorbike prevented the boy DE walk.INF.3PL fast

We interpret these facts as meaning that the transitive counterpart of *obrigar* 'force' or *impedir* 'prevent' imposes more lenient semantic restrictions on the external argument, a fact that is compatible with the association of this argument with the thematic role of Causer and with the interpretation of the verb as a syntactic causative (instead of an object control verb).⁷

We are therefore reaching an analysis that assumes the existence of *obrigar* 'force' and *impedir* 'prevent' (and also *forçar* 'force') as syntactic causatives, on a pair with its interpretation as ditransitives (and, in this case, object control verbs). We suggest that in the case they behave as transitives (and thus as syntactic causatives), the DP2 is merged in a subject position in the embedded domain. This is also what explains the possibility of an embedded expletive: The embedded expletive is possible under the transitive version of these verbs, to the same extent as it is possible under causatives – see (46) below. This suggestion goes along the lines of Jackendoff & Culicover (2003: 539), and, in line with their work, we assume that the interpretation of the causative version of the verb indeed corresponds to what is schematized in (36b) in the beginning of this subsection.

- (46) Este frio não deixa chover.
This cold weather NEG let rain.INF
'This cold weather does not let it rain.'

The transitive counterpart of the verb also allows for a finite complement (incompatible with a nominal internal argument of the same verb) – see examples in (24); (24b) is repeated in (47) below. In this case, we have evidence for a full complementizer phrase (CP) domain, with the finite complementizer *que* introducing the infinitival clause (and being preceded by the prepositional element *a*).

⁷ In footnote 3, Section 3, we have seen that some speakers may accept non-implicative verbs (e.g. *convencer* 'convince') with an inanimate subject. When this happens, the verb has a meaning close to 'make' and behaves as implicative (e.g. if the sentence in (22), repeated here as (i) is accepted, it cannot be followed by 'but João did not leave').

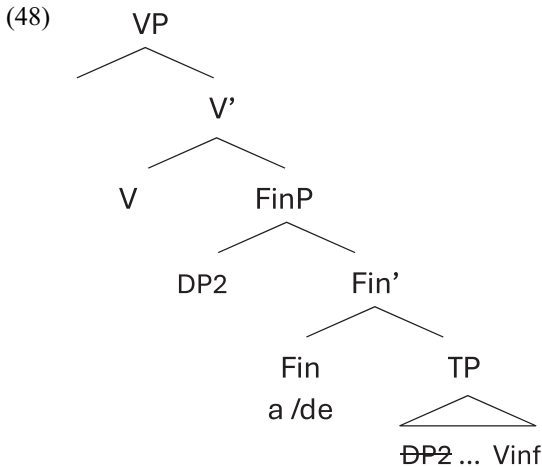
- (i) *O vento / *o barulho convenceu o João a ir embora.
the wind / the noise convinced the João A leave.INF

This may result from the semantic coercion of *convencer* 'convince' as an implicative causative (on the possibility of semantic coercion with object control verbs, see Santos 2023). However, there is some diversity of selectional properties within syntactic causatives, as we will see in 4.3, when discussing *mandar* 'order'.

- (47) A lei obriga a que os cidadãos declarem os rendimentos.
 the law forces PREP COMP the citizens declare.SUBJ.3PL the income
 'The law compels the citizens to declare their income.'

In the case of the transitive structure in which the verb occurs with an infinitival complement (the type of structure that is under discussion in this paper), we argue that the embedded infinitival clause is a defective CP, probably a FinP headed by *a* or *de*, grammaticalized as a prepositional complementizer. DP2 is merged as the subject of the infinitival verb and raises through tense phrase (TP) to the specifier (Spec) of FinP, the edge of the embedded domain, where it checks accusative Case via Agree with the matrix *v*.

We thus claim that the structure projected by the syntactic causative (i.e. the transitive) counterpart of the implicative verbs *obrigar* 'force', *forçar* 'force', and *impedir* 'prevent' corresponds to what is represented in (48):



This analysis can explain the special behaviour of these verbs, namely:

- (i) The possibility of *faire*-Inf, resulting in the possible occurrence of a dative corresponding to the DP2 in the ditransitive structure, which is explained if DP2 is merged in the embedded domain as an argument of the verb in this domain – see (31c, d).
- (ii) The impossibility of a mismatching embedded inflected infinitive when DP1 or DP2 are inanimate, since inanimate DPs are only compatible with the syntactic causative (i.e. the transitive) version of the verb, in (48), and a mismatching inflected infinitive signals a ditransitive (control) structure (see 42a, b).
- (iii) The possibility of expletives in the embedded subject position, in the transitive version of the verb – (23 c, d) and (30 a–c) – when these expletives occur, they are merged as the subject of the embedded predicate and are not in a control configuration.
- (iv) The transitive behaviour of the verb when used with a finite clause – see (24) and (47) – we assume that only the transitive version of these implicative verbs is compatible with a finite complement and corresponds to the interpretation in (36b).

A final note should be added on Case and the embedded inflected infinitive in these structures. The structure in (48) assumes that the DP merged as a subject of the embedded predicate raises to the edge of FinP and checks accusative Case (49b). However, the availability of an inflected infinitive in the embedded position, as shown in the examples in (49), would suggest that nominative is available in the embedded domain. As we have previously shown in (27), reproduced as (50a), a DP can indeed be licensed as a subject in the embedded domain, even though typically in an inverted position. We take the nominative pronoun in (50b) to signal a domain in which nominative case is available. Note that this pronoun in (50b) cannot be taken as a bound pronoun, since we do not identify a controller (either explicit or implicit) in this sentence – this contrasts with (50c), a case in which the verb behaves as an object control verb and the embedded pronoun is bound by the controller (DP2).

- (49) (a) Durante o terremoto, a escada obrigou as paredes a
 during the earthquake the stair forced the walls A
 ceder / cederem.
 sag.INF / sag.INF.3PL
 ‘During the earthquake, the stair forced the walls to sag.’
 (b) Durante o terremoto, a escada obrigou-as a
 during the earthquake the stair forced-CL.3PL.ACC A
 ceder / cederem.
 sag.INF / sag.INF.3PL
 ‘During the earthquake, the stair forced them to sag.’
- (50) (a) A lei obriga a declararem os cidadãos os rendimentos.
 the law forces A declare.INF.3PL the citizens the income
 ‘The law compels the citizens to declare their income.’
 (b) A lei obriga a declararem eles os rendimentos.
 the law forces A declare.INF.3PL they.NOM the income
 ‘The law compels them to declare their income.’
 (c) A professora obrigou os alunos_i a fazerem eles_{i/*j} o pedido.
 the teacher forced the students A do.INF.3PL they the request
 ‘The teacher forced the students to make the request themselves.’

The observation of (49) and (50a, b) leads to the following generalization: When the embedded infinitive (under the transitive version of these verbs) shows overt inflection, the DP merged as the external argument of the embedded verb either checks nominative and stays in the embedded domain or raises to Spec, FinP, and checks accusative. This is exactly what has been shown to happen under other syntactic causatives in EP. As shown in Section 2, the structures in (51a, b), described as the norm, occur on a pair with (51c), which some speakers actually prefer over (51b). The possibility of (or even the preference for) (51c) has been noticed by Hornstein, Martins & Nunes (2008) and Barbosa, Flores & Pereira (2018). According to Hornstein, Martins & Nunes (2008), the inflected infinitive co-occurring with the accusative pronoun in (51c) is not a true inflected infinitive, since it is not specified for person (only the third-person plural is possible, signalling only a number contrast) – this defective form (in terms of phi-features) would not be associated with the availability of Case (nominative).

- (51) (a) O João deixou-as cair.
 the João let-CL.3PL.ACC fall.INF
 ‘João let them fall.’
- (b) O João deixou elas caírem.
 the João let they.NOM fall.INF.3PL
 ‘João let them fall.’
- (c) O João deixou-as caírem.
 the João let-CL.3PL.ACC fall.INF.3PL
 ‘João let them fall.’

As for the issue of subject-verb inversion within the embedded clause in (50), and even though we will leave the issue open, we can say (i) that this type of inversion is found with inflected infinitives in other complement clauses (Raposo 1987) and also (ii) that this word order may be achieved with the embedded verb raising to the embedded T but with the DP staying in situ.

Landau (2015) suggests that implicative object control verbs (of the type of *obrigar* ‘force’) take as complement a constituent that is a domain of predication, with the object controller and the infinitive occupying the subject and predicate positions of a small clause (Landau takes this small clause to correspond to RelP). According to Landau (2015), control in this type of configuration corresponds to what he defines as predicative control and, in this case, we expect all phi-features of the subject (the controller) to be copied onto the predicate. The implicative reading in the case of predicative control would result from the predicative configuration (see a more explicit explanation in Landau 2021). The data presented in this paper pose a challenge for this description and interpretation of the facts. To summarize it, we showed that implicative control verbs allow for split control readings with embedded inflected infinitives mismatching the object controller in number, and we have also shown that even in those configurations the implicative reading is maintained. A mismatching inflected infinitive would be difficult to explain if the controller and the infinitive are in a subject–predicate relation.

The analysis presented in this subsection suggests instead that the so-called implicative object control verbs are ambiguous between object control verbs, which are ditransitive, and syntactic causatives, i.e. transitive predicates that in this case take as their single complement a defective CP, a FinP. Only by considering this syntactic ambiguity do we explain the different restrictions on agreement in the embedded infinitive and on the animacy of the controller. This means that, contrary to what is suggested by Landau, we do not need to argue for the special status of predicative control in terms of the animacy of the controller or the (un)availability of split readings: What we are seeing is the ambiguity of these verbs, which can be more easily determined by looking at the inflected infinitives available in EP. We also reject the hypothesis that the implicative reading is derived from a particular syntactic configuration, namely a predicative configuration. More generally, we reject the idea that we can, at least in this case, infer the syntactic structure from semantics.

4.2. Type B causatives

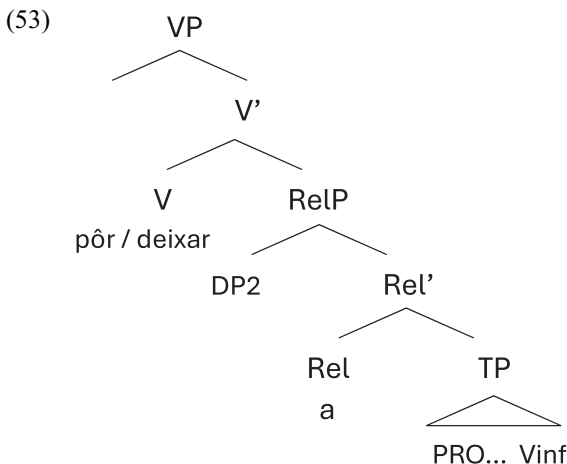
In this subsection, we consider Type B causatives, which occur in structures superficially similar to the structures of implicative object control verbs considered in the previous subsection. The behaviour of the Type B causatives *deixar a* ‘put to / make’ and *pôr a* ‘put to / make’ argues against an analysis of these verbs as ditransitives. This means that DP2

is not an argument of these verbs and is merged inside the infinitival domain. It cannot be left stranded when the embedded predicate is clefted – see (52a) – and, more interestingly, an embedded inflected infinitive mismatching DP2 is not allowed – see (52b). This is important if, as we claimed before, a mismatching inflected infinitive (interpreted as split control) signals a ditransitive structure:

- (52) (a) *Foi a dormir que o medicamento deixou / pôs os meninos.
 was A sleep.INF that the medicine made / put the children
 (b) *O pai deixou / pôs o bebé a — dormirem.
 the father made / put the baby A — sleep.INF.3PL

This behaviour of Type B causatives places them on a pair with Type A causatives and the so-called implicative object control verbs in their syntactic causative counterpart. However, as we showed in Section 3, Type B causatives differ from the two other classes in several aspects, justifying a different analysis of the embedded infinitival domain. In what follows, we recover the main features of the behaviour of Type B causatives presented in the previous subsections and develop an analysis suggesting that they select for a projection of a Relator head (in the sense of Den Dikken 2006), with DP2 merged in Spec, Relator phrase (RelP), and controlling the reference of the subject in the infinitival domain (we assume here the embedded subject to be a PRO, independently of the presence of inflection in the embedded domain, but we leave the issue open). This is close to the analysis suggested by Barbosa & Cochofel (2005) for the Prepositional Infinitival Construction (PIC) under perception verbs in EP, which is itself based on Raposo's (1989) control analysis of the PIC. Notice, however, that Barbosa & Cochofel (2005) assume that the small clause is headless.

We propose that the preposition-like element *a* is the lexicalization of Relator (Den Dikken 2006), the head of a small clause. The fact that DP2 is merged outside the infinitival TP and controls the reference of the empty embedded subject distinguishes Type B causatives from Type A causatives and from the transitive counterpart of implicative object control verbs, such as *obrigar* 'force' or *impedir* 'prevent' (Section 4.1). Consider the following structure:



Merging DP2 in Spec, RelP directly explains the fact that DP2 always checks accusative Case, not nominative, even if the embedded domain contains an inflected infinitive:

- (54) O filme pôs os meninos a rirem.
 the movie put the children A laugh.INF.3PL
 'The movie made the children laugh.'
- (55) (a) O filme pô-los a rirem.
 the movie put-CL.3PL.ACC A laugh.3PL
 'The movie made them laugh.'
- (b) *O filme pôs eles a rirem.
 the movie put they A laugh.3PL

As a clear argument in favour of the control approach inside the small clause (and in favour of directly merging the DP2 in Spec, RelP), we point to the fact that Type B causatives do not allow for embedded expletive subjects, a property that distinguishes these verbs from some Type A causatives and the implicative verbs discussed in the preceding subsection. In this sense, the ungrammaticality of (56) is expected if we consider that Type B causatives select for a RelP whose subject controls the empty subject of the infinitival domain: The impossibility of a controlled expletive explains the ungrammaticality.

- (56) *A lei deixa / pôs a haver duas auxiliares por sala na creche.
 the law makes / put A be.INF two assistants per room in.the nursery school

In turn, Type A causatives (57a) and the transitive counterpart of implicative object control verbs (57b) can occur with expletive subjects in the infinitival domain, allowing the conclusion that control is not involved in those structures:

- (57) (a) A lei deixa haver duas auxiliares por sala na creche.
 the law let be.INF two assistants per room in.the nursery school
 'The law allows for two assistants per room at nursery school.'
- (b) A lei obriga a haver duas auxiliares por sala na creche.
 the law forces A be.INF two assistants per room in.the nursery school
 'The law determines that there must be two assistants per room at nursery school.'

An additional argument comes from the unavailability of *faire*-Inf. Type B causatives differ from the other two classes of verbs under analysis in disallowing *faire*-Inf; see (58). This is expected if (53) represents the structure of the internal argument of Type B causatives. Since PRO, not DP2, occupies the subject position of the embedded TP, the reanalysis of the argument structure of the embedded verb that characterizes *faire*-Inf cannot involve DP2, thus DP2 cannot surface as a dative.

- (58) *O João não a pôs a comer aos meninos.
 the João NEG CL.3SG.ACC put A eat.INF to.the children

Finally, we suggest that *a* lexicalizes Rel under Type B causatives. We assume that, both under Type B causatives and under the syntactic causative version of the so-called

implicative object control verbs (Section 4.1), there was grammaticalization of that form, which does not correspond to a lexical preposition. We should note that *a* is a highly ambiguous form in EP: It behaves as a preposition but also as a dative marker (see Gonçalves 2015 and references therein), an aspectual marker (e.g. under the semi-auxiliary *estar a* ‘be + V.GER’, Gonçalves 1992; also in the PIC, Duarte 1992, Barbosa & Cochofel 2005). In addition, we note that the form *de*, found under the so-called implicative object control verb *impedir* ‘prevent’, is also ambiguous: It behaves as a preposition, but it is also found under raising semi-auxiliaries as *acabar de* ‘finish + V.GER’ (Gonçalves 1992).

In sum, in this subsection, we showed that Type B causatives select for one single internal argument, like syntactic causatives and the transitive counterpart of implicative object control verbs. However, in the case of Type B causatives, DP2, which checks accusative Case in the domain of the matrix verb, is the subject of RelP, and controls the subject position of the infinitival TP. In contrast, and as shown in Section 4.1, the internal argument of the transitive counterpart of implicative object control verbs is a FinP. In this case, DP2 is merged inside the embedded TP, and raises to Spec, FinP.

4.3. The case of *mandar* ‘order’

In the present subsection, we briefly consider the special case of the causative *mandar* ‘order’ in EP. It is not our goal to fully develop an analysis of this causative verb, either in a synchronic or a diachronic perspective. Instead, by considering some aspects of the syntax and interpretation of this causative, we will be able to develop our argument that an implicative interpretation is not necessarily a consequence of a particular syntactic structure.

The verb *mandar* ‘order’ has been analysed as a syntactic causative alongside with other Type A causatives, namely, *fazer* ‘make’ and *deixar* ‘let’ (for EP, see among others Raposo 1981; Gonçalves 1999; Martins 2004, 2018). As already mentioned in the previous subsections, all these verbs occur with a finite complement or an infinitival one; in the latter case, Type A causatives occur either in the string [DP1 V_{caus} DP2 V_{inf}] or in *faire*-Inf. The main difference between these syntactic structures relies on the size of the complement, defined in the literature as the number of functional heads projecting in the embedded domain and their completeness or defectiveness (see, among others, Gonçalves 1999; Hornstein, Martins & Nunes 2008; Torrego 2010; Sheehan & Cyrino 2018, 2024): The inflected infinitival complement is the projection of a complete TP, DP2 bearing nominative Case (or a defective T, if DP2 exhibits accusative); in typical raising-to-object with an uninflected infinitive, the infinitival complement is a projection of a Case-defective T, DP2 being marked for accusative Case; and the complement in *faire*-Inf is a projection of V lower than T, be it VP, VoiceP, vP, or IncausP, DP2 being marked as accusative or dative, depending on the transitivity of the embedded predicate (Gonçalves 1999).

Regardless of the specific category of the embedded infinitival domain, DP2 is always merged inside this domain, which is the single internal argument of Type A causatives. Thus, in all cases, a split control reading is precluded, as it happens with Type B causatives but not with object control verbs:

- (59) *O João_i fez / deixou / mandou o filho_j _{i+j} comerem a sopa.
 the João made / let / ordered the son eat.INF.3PL the soup

Nevertheless, the verb *mandar* has a particular behaviour among Type A causatives. First, it does not allow an inanimate DP2, contrary to *deixar* ‘let’ and *fazer* ‘make’ and to the verbs of the type of *obrigar* ‘force’:

- (60) (a) *O João mandou a porta bater.
the João ordered the door slam.INF
(b) O João deixou / fez a porta bater.
the João let / made the door slam.INF
‘João let / made the door slam.’

A semantic restriction on DP1 is also observed, non-human subjects being excluded:

- (61) (a) O vento fez o João cair.
the wind made the João fall.INF
‘The wind made João fall.’
(b) *O vento mandou o João cair.
the wind ordered the João fall.INF

Second, *mandar* does not have an implicative reading, contrary to the other syntactic causatives we are analysing. Thus, (62a) is possible with a continuation excluding an implicative interpretation.

- (62) (a) O João mandou as filhas comer a sopa
the João ordered the daughters eat.INF the soup
‘João made his daughters to eat the soup’
(b) mas elas não comeram porque desmaiaram antes.
but they NEG ate because fainted before
‘but they didn’t eat it because they fainted before that.’

These differences lead us to conclude that *mandar* preserves the agentive reading it has as a declarative verb of order, even when it behaves as causative, being less semantically bleached than the other verbs we are analysing, especially the other Type A causatives and Type B causatives. Moreover, this verb is an exception in the scenario of Romance languages. Indeed, if we consider other Romance languages, such as French (Kayne 1975), Italian (Guasti 1993), and Spanish (Torrego 2010), there is no direct equivalent to *mandar*, and causatives are restricted to the equivalents of *deixar* ‘let’ and *fazer* ‘make’.

The diachronic path of *mandar* ‘order’ is particularly interesting and is compatible with the fact that *mandar* ‘order’ retains its semantic value as a declarative verb of order similar to *pedir* ‘ask’ or *dizer para* ‘tell to’ and confirms that this verb is less semantically bleached than the other causatives. As Martins (2004) suggests, in Ancient Portuguese a ditransitive version of this verb, illustrated by (63), may have coexisted with a structure compatible with an ECM analysis.

- (63) E o Cide mandou aos seus que roubassem o campo.
and the Cide ordered to.the theirs that steal the countryside
‘And Cide made his people steal the countryside.’
(*Crónica Geral de Espanha de 1344*; Cintra 1961: 417, cited by Martins 2004: 204n8)

The structure in (63) is no longer available in contemporary Portuguese, a variety in which the verb behaves as a syntactic causative, even though in his well-known traditional grammar, Dias (1918) presents examples of the same construction in EP, allowing the suggestion that the construction lasted until this point. Galician and Spanish still allow a finite ditransitive structure in the context of *mandar* (Sousa Fernández 1998).

The diachronic note concerning *mandar* ‘order’ suggests that there are other verbs among the semantic class of causatives, besides the so-called implicative object control verbs (i.e. the verbs of the type of *obligar* ‘force’) that have (or have had) both a ditransitive and a transitive counterpart. Moreover, these observations with respect to the syntactic causative *mandar* ‘order’ allow us to add an argument in favour of the independence between syntactic structure and the interpretation of different causative verbs. Whereas in Section 4.1. we showed that the implicative reading does not necessarily result from a predicative structure (the so-called implicative object control verbs maintain this reading both in their transitive counterpart, in which we find an embedded predicative structure, and in their ditransitive, control, counterpart), we now show that a syntactic causative, *mandar* ‘order’, which shares the syntactic properties of Type A causatives, may maintain the reading of declaratives of order, which are typically object control verbs (e.g. *dizer para* ‘tell to’), and the same semantic restrictions on its arguments (namely, selection of an agentive external argument). The behaviour of *mandar* ‘order’ also highlights the central status of the inflected infinitive as a test allowing to distinguish a ditransitive (control) structure from a transitive structure in which DP2 is a subject in an embedded complement: The impossibility of an inflected infinitive mismatching DP2 in number features (and interpreted as a case of split control) under *mandar* ‘order’ is in agreement with the exclusion of this verb from the set of object control verbs.

5. Conclusion

By exploring the syntactic similarities and differences between a small set of object control verbs – those that can be described as implicative object control verbs – and syntactic causatives, we have reached the conclusion that those verbs are ambiguous between true control verbs (which we argue to be ditransitive) and verbs that take a single internal argument and show the behaviour of a syntactic causative. A central piece of the argumentation was built upon the distribution and interpretation of inflected infinitives (which are a specificity of EP), even though the idea of ambiguity among the class of control verbs is not new and may be relevant for the explanation of both syntactic and semantic facts (see Jackendoff & Culicover 2003). By identifying the ambiguity affecting this class of object control verbs, we avoided the need to assume that this particular subclass of control verbs allows for inanimate controllers: As we have seen, an inanimate DP in the position of the causee / controller is not compatible with an embedded inflected infinitive that does not match this DP in phi-features, and this is explained if this DP is indeed generated as the subject of the embedded infinitive. This analysis also explains the otherwise mysterious fact that *faire*-Inf is possible under the transitive counterpart of these verbs. Therefore, and contrary to Landau (2015), we do not need to postulate a special type of control corresponding to predication. Instead, we argued that (i) these verbs may take a single complement, a FinP, with an embedded subject raised to Spec, FinP, but (ii) they maintain the possibility to project a ditransitive structure in which the internal argument of the matrix verb controls the

subject of an infinitival clause. The facts of EP allow to unravel the issue and distinguish the two different structures.

By comparing object control verbs that exhibit the behaviour of syntactic causatives with verbs that occur in a superficially similar context, we were able to discuss the status of the understudied verbs *pôr a* ‘put to’ / ‘make’ and *deixar a* ‘make’, which we named Type B causatives. The same criteria used to support the ambiguity of implicative object control verbs show that Type B causatives are non-ambiguous transitive verbs. We argue that Type B causatives select for a small clause complement, a projection of a head Relator. In this case, DP2 is merged in [Spec, RelP] and controls the subject of the embedded infinitival clause, in a structure similar to the PIC under perception verbs in EP.

The observation of the interpretation and syntactic behaviour of these verbs allowed to argue that the implicative interpretation of object control verbs is independent of the syntactic structure (contrary to the assumption of Landau 2015, 2021). In addition, we briefly discussed the syntactic causative *mandar* ‘order’ in Portuguese, another case in which the interpretation is not affected by the syntactic structure.

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