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On the resilience of obligatory control in inflected infinitives under object control verbs

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This study investigates the interpretation of inflected infinitives under object control verbs in European Portuguese. It contrasts the behaviour of two different types of control verbs, represented by *obrigar* ‘force’ and *convencer* ‘convince’, and belonging each to one of the two classes of control verbs established by Landau (2015). It is argued that inflected infinitives under different object control verbs show a different behaviour: whereas inflected infinitives under *convencer* ‘convince’ do not maintain obligatory control readings (as previously shown by Barbosa 2021), under *obrigar* ‘force’ and similar verbs an obligatory control reading is maintained. This empirical observation is in agreement with the predictions of Landau (2015), to the extent that, in the set of verbs that Landau associates to predicative control, agreement inflection does not block control, even though some further questions are raised to Landau’s analysis. In the present study, a relation is established between different types of object control verbs, their semantics, and the availability of non-controlled inflected infinitives.

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1 Introduction

Control is typically associated with non-inflected infinitives in European Portuguese. The starting point of the present paper is the observation of the pervasiveness of inflected infinitives as complements of object control verbs in European Portuguese (EP).

European Portuguese displays inflected infinitives, which are infinitival forms morphologically marked for person and number features. Inflected infinitives are typically non-control contexts, co-occurring with nominative overt subjects or *pro* subjects (Raposo 1987). However, the existence in EP of inflected infinitives which are apparently controlled has been noticed in the case of object control in standard dialects (Raposo 1989) and in the case of subject control under transitive verbs (Gonçalves & Santos & Duarte 2014, who associate these occurrences to colloquial/substandard varieties; Sheehan 2018). In this paper, we are concerned with the case of inflected infinitives in the complements of object control verbs. Moreover, we discuss the interpretation of these inflected infinitives in European Portuguese, even though studies on Brazilian Portuguese are mentioned when relevant.

Raposo (1989) seems to assume that the inflected infinitive under object control verbs corresponds to a control context. The same has been argued by Sheehan (2018) and Modesto (2010; 2018), the latter discussing Brazilian Portuguese. However, recently Barbosa (2021), discussing the behaviour of inflected infinitives under attitude verbs, including object control verbs, questions the conclusions reached by Sheehan and Modesto. When discussing object control verbs, she focuses on the cases of attitude verbs such as *convencer* ‘convince’ and *persuadir* ‘persuade’ (the same verbs that are considered by Sheehan and Modesto) and argues that inflected infinitives under these verbs do not show the behaviour of obligatory control contexts. Based on the facts that she enumerates, Barbosa argues that the impossibility of obligatorily controlled inflected infinitives under these object control verbs is expected if agreement blocks Control under attitude verbs, as argued by Landau (2015). Aiming at discussing attitude verbs, Barbosa (2021) only explores the interpretation of subjects of inflected infinitives under the object control verbs *convencer* ‘convince’ and *persuadir* ‘persuade’.¹ The present paper broadens the types of object control verbs under discussion; by doing this, it confirms the intuitions of Barbosa, but it also asserts the existence of inflected infinitives under other object control verbs which maintain obligatory control readings.

It is therefore a major goal of this paper to make an empirical claim: inflected infinitives under a subclass of object control verbs create obligatory control (OC) contexts. By observing a split between what we can call resilient object control verbs and non-resilient object control

¹ Barbosa (2021) also discusses subject control, which is not under the scope of the present paper.

verbs, we will draw a parallel with Landau's (2015) divide between verbs inducing predicative and logophoric control. To the best of my knowledge, the present paper is the first discussing this type of difference in the interpretation of inflected infinitives under object control verbs. An explanation for these facts will also be suggested – the explanation provided can work as an additional argument for theories of Control that assume a heavy contribution of semantics in determining control readings (Jackendoff & Culicover, 2003; Landau 2015, to a different extent; also Stiebels 2007). This view contradicts some of the main assumptions underlying the Movement Theory of Control (Hornstein, 1999).

2 Inflected infinitives in European Portuguese and the problem of object control verbs

The Portuguese inflected infinitives are characterized by overt inflection marking person and number (with the exception of the 1st and the 3rd singular forms) and typically occur either with lexical subjects or with overt/null pronominal subjects (*pro*), i.e. they correspond to contexts in which Control is not observed. Therefore, whereas non-inflected infinitives in complement clauses exhibit the properties of Obligatory Control (OC), as it is the case of the non-inflected infinitival clause in the complement of *lamentar* 'regret' in (1a), inflected infinitives generally block control, as it is the case of the inflected infinitival clause under the same verb *lamentar* 'regret' in (1b).

- (1) a. Os professores lamentam chegar atrasados.
 the teachers regret.3PL arrive.INF late.M.PL
 'The teachers regret arriving late.'
- b. Os professores lamentam *pro* / nós chegarmos / os meninos
 the teachers regret.3PL we arrive.INF.1PL / the children
 chegarem atrasados.
 arrive.INF.3PL late.M.PL
 'The teachers regret that we / the children arrive late.'

This is the general position taken in the literature with respect to the contrast produced by the presence of inflection in infinitives in Portuguese under transitive verbs (see Raposo 1987; also Pires 2006): when in the complement of a transitive (subject) control verb, inflected infinitives create non-control environments.

However, the distribution of inflected infinitives has been itself an issue. Even though inflected infinitives generally occur only in embedded clauses (a distribution that they share with non-inflected infinitives), their distribution in embedded clauses is also restricted (see the

initial discussion by Raposo 1987).² According to the description of Raposo (1987), apart from subject and adjunct clauses (non-obligatory control contexts), inflected infinitives can occur as complements of epistemic, declarative and factive verbs. Gonçalves & Santos & Duarte (2014) argue that only verbs that do not specify the temporal orientation of its complement (as it is the case of *lamentar* ‘regret’ in (1)) can take an inflected infinitive clause as a complement. Barbosa (2021) instead argues that inflected infinitives are not available under restructuring verbs and in interrogative complements; in contrast, they are available in the complement of attitude non-restructuring predicates.

The specific case of inflected infinitives under object control verbs has been subject to a more limited discussion. The availability of inflected infinitives under object control verbs has been noticed by Raposo (1989) and by Madeira (1994); even though not discussing this, Raposo (1989) seems to assume that inflected infinitives under object control verbs are (obligatory) control structures, therefore with properties similar to controlled non-inflected infinitives. Both Modesto (2010; 2018) for Brazilian Portuguese and Sheehan (2018) for EP consider inflected infinitives under object control verbs on a par with inflected infinitives under transitive (and ditransitive) subject control verbs. Sheehan (2018: 34) points out that inflected infinitives under object control verbs are widely accepted with an exhaustive reading (the reference of the controlled subject is exhausted by the controller), in contrast with contexts of subject control. Modesto (2010: 85) suggests that in BP the inflected infinitive under object control verbs (as in other contexts in BP) is required to signal a partial control reading – see (2).

- (2) O Pedro₁ convenceu / instruiu / instigou / induziu a Dani₂ a
 the Pedro convinced / instructed / enticed / induced the Dani PREP
 PRO_{1+2/2+/*1+/*3} viajarem amanhã.
 travel.INF.3PL tomorrow
 ‘Pedro convinced / instructed / enticed / induced Dani that they should travel tomorrow.’
 Modesto (2010: 86)

The author shows the effect of the inflected infinitive in sentences that do not have an embedded collective predicate (such as *reunir* ‘meet’) and does not explicitly distinguish partial and split readings: a split reading (1 + 2 in example (2)) corresponds to the case in which the reference of the controlled subject is exhausted by the matrix arguments, but split between them (see Landau 2013: 172); the partial reading (2+ in example (2)) corresponds to a case in which the interpretation is less restricted: the controller is included in the reference of the controlled

² An exception to the restriction of inflected infinitives to embedded clauses are cases of root exclaimatives, as noticed by Madeira (1994):

- (i) Dizeres uma coisa dessas!
 say.INF.2SG a thing of.those
 ‘How can you say something like that!?’

subject but does not exhaust it (Landau 2013: 157). Modesto (2018: 61), who quotes Negrão (1986) on this, suggests that speakers of BP who maintain verbal inflection (it is a well-known fact that verbal inflection is reduced in some varieties of BP), tend to obligatorily use inflected infinitives in object control structures.

This type of context for inflected infinitives deserves further attention. If it is proven that there are indeed controlled inflected infinitives under object control verbs, it would be interesting to understand why agreement would not block obligatory control in this context.

Recently, Barbosa (2021) has argued against the idea that inflected infinitive subjects are controlled in complements of *convencer* ‘convince’ and *persuadir* ‘persuade’, the verbs that Modesto (2010; 2018) and Sheehan (2018) use to generally discuss this type of context. The argumentation of Barbosa is restricted to the complements of attitude verbs (subject and object control verbs) and the object control verbs *convencer* ‘convince’ and *persuadir* ‘persuade’ fall in this class. She explicitly leaves the issue open in what concerns the status of inflected infinitives under non-attitude verbs. In this paper, we only consider object control verbs and it is the aim of the next section to contrast the attitude object control verbs that Barbosa discussed with other verbs, representative of another subclass of object control verbs.

3 Testing control readings

The present section aims at establishing the main properties of inflected infinitives under different object control verbs in EP. To do this, we will test inflected infinitives under the object control verb *obrigar* ‘force’ (as well as a reduced number of other verbs with similar behaviour) and compare it to *convencer* ‘convince’, the verb systematically used by Barbosa (2021).³ We take these verbs to be representative of two types of verbs, an issue to which we will return to.

³ The verb *convencer* ‘convince’ (as well as *persuadir* ‘persuade’) can have an epistemic meaning (associated to Belief) or a non-epistemic meaning (associated to Intent) (see discussion in Jackendoff 1985). The epistemic *convencer* takes a finite indicative complement, introduced by the preposition *de*, as in (i). A sentence such as (i) means that the participant corresponding to the matrix subject makes the participant corresponding to the direct object believe in the truth of the embedded proposition. In contrast, the non-epistemic *convencer* takes either an infinitival complement introduced by the preposition *a* or a finite subjunctive complement introduced by the same preposition. Therefore, the contrast is not merely expressed by the finiteness of the complement, but also by mood and the preposition introducing the embedded sentence: in (ii) *convencer* ‘convince’ maintains a non-epistemic reading. Marques (2009) argues for the relevance of epistemicity in the distribution of the indicative and the subjunctive in European Portuguese. In the present paper, we are focusing cases in which *convencer* ‘convince’ is associated to a non-epistemic meaning (for a recent discussion of the meaning of *persuade*, see Grano 2019).

- (i) O director convenceu o médico de que os enfermeiros foram ao
 the director convinced the doctor PREP COMP the nurses went.IND to.the
 congresso.
 congress
 ‘The director convinced the doctor that the nurses had gone to the congress.’

The starting point to establish the relevant criteria is what Landau (2013) calls the Obligatory Control (OC) signature. To this extent, we should be interested in determining if the antecedent (the controller) of the null subject of an inflected infinitive under the relevant object control verbs must be local and c-command the subject position (long-distance and non-c-commanding antecedents are excluded from OC). These are central criteria which come from the set of initial criteria for OC defined by Williams (1980) – at least the idea that there must be an antecedent and that it must c-command the controlled subject -, and these criteria are accepted independently of the analysis of Control which is assumed, either a non-movement (Landau 2013) or a movement approach (Hornstein 1999) – see Sheehan (2018) for a recent synthesis of diagnostic criteria taken from different trends in the literature.

We start here by testing the possibility of a long-distance controller. The example in (3) shows a contrast between an inflected and a non-inflected infinitive under *convencer* ‘convince’ (in accordance with Barbosa’s 2021 description). The subject of the inflected infinitive under *convencer* in (3b) does not behave as obligatorily controlled: it allows for a long-distance antecedent (the subject of the matrix clause *as crianças* ‘the children’).

- (3) a. *As crianças_i disseram que o Pedro_w convenceu a Maria_k /as primas_k*
 the children said that the Pedro convinced the Maria the cousins
*a _{-k/*i/*w} ir para a cama cedo.*
 PREP go.INF to the bed early
 ‘Children said that Pedro convinced Maria to go to bed early.’
- b. *As crianças_i disseram que o Pedro_w convenceu a Maria_k*
 the children said that the Pedro convinced the Maria
a _{-i/k+i/k+w} irem para a cama cedo.
 PREP go.INF.3PL to the bed early
 ‘Children said that Pedro convinced Maria to bring it about that they go to bed early / to go to bed early with someone else.’

However, this contrasts with what is found in (4), under the object control verbs *obrigar* ‘force’ and *ajudar* ‘help’ – in this case, a non-local antecedent is precluded, with both inflected and non-inflected infinitives (4a, b). In (4b), with an inflected infinitive, and since there is no 3rd plural DP in a local position available as a controller, the use of the 3rd plural form of the inflected infinitive can only be interpreted with a split control reading, a case in which its reference is

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- (ii) *O director convenceu o médico a que os enfermeiros fossem ao*
 the director convinced the doctor PREP COMP the nurses went.SBJV to.the
 congresso.
 congress
 ‘The director convinced the doctor to bring it about that the nurses go to the congress.’

exhausted by the arguments of the control verb in the superordinate clause; in the same case, a partial control reading (for instance a case in which one could understand that Maria and the children go to bed early) does not seem to be equally available (in the absence of a collective predicate). The object control verb *impedir* ‘prevent’, which selects for an infinitive complement introduced by the preposition *de* behaves as *obrigar* ‘force’ (5); the verb *forçar* ‘force’ also behaves in the same way. If a 3rd plural controller is available, the sentence with the inflected infinitive is possible with an exhaustive control reading, as shown in (6); in this case, the split control reading seems to be available but not preferred (or equally salient).

- (4) a. As crianças_i disseram que o Pedro_w obrigou / ajudou a Maria_k
 the children said that the Pedro forced / helped the Maria
 a $_{-k/*i/*w}$ ir para a cama cedo.
 PREP go.INF to the bed early
 ‘The children said that Pedro forced / helped Maria to go to bed early.’
- b. As crianças_i disseram que o Pedro_w obrigou / ajudou a Maria_k
 the children said that the Pedro forced / helped the Maria
 a $_{-i/*k/*k+i/k+w}$ irem para a cama cedo.
 PREP go.INF.3PL to the bed early
 ‘The children said that Pedro forced / helped Maria to go to bed early with him.’
- (5) a. As crianças_i disseram que o Pedro_w impediu a Maria_k de $_{-k/*i/*w}$
 the children said that the Pedro prevented the Maria PREP
 ir para a cama cedo.
 go.INF to the bed early
 ‘The children said that Pedro prevented Maria from going to bed early.’
- b. As crianças_i disseram que o Pedro_w impediu a Maria_k de
 the children said that the Pedro prevented the Maria PREP
 $_{-i/*k/*k+i/k+w}$ irem para a cama cedo.
 go.INF.3PL to the bed early
 ‘The children said that Pedro prevented Maria from going to bed early with him.’
- (6) a. As crianças_i disseram que o Pedro_w obrigou / ajudou as sobrinhas_k
 the children said that the Pedro forced / helped the nieces
 a $_{-k/*i/*w}$ ir para a cama cedo.
 PREP go.INF to the bed early
- b. As crianças_i disseram que o Pedro_w obrigou / ajudou as sobrinhas_k
 the children said that the Pedro forced / helped the nieces
 a $_{-k/k+w/*i/*w}$ irem para a cama cedo.
 PREP go.INF.3PL to the bed early
 ‘The children said that Pedro forced / helped his nieces to go to bed early.’

The next set of sentences tests for the possibility of identifying a non-c-commanding antecedent of subjects of inflected infinitives under the same group of object control verbs. In the following sentences, the DP [a ama das crianças] c-commands the embedded subject; in contrast, the embedded DP [as crianças] does not c-command the embedded subject. Moreover, our knowledge of the world and the natural authority relations established between the different entities mentioned in the sentences may favour a reading in which children are going to bed early. We therefore test the extent to which syntax (the syntax of control) can block that reading. The sentences in (7) test this reading under *convencer* ‘convince’ with inflected and non-inflected infinitives. Whereas the subject of the non-inflected infinitive is controlled as expected – the controller is necessarily identified as the c-commanding DP [a ama das crianças] -, we confirm Barbosa’s (2001) insight in the interpretation of the subject of an inflected infinitive: in this case, the non c-commanding DP [as crianças] can get interpreted as the antecedent of the embedded subject; as an alternative, and given the 3rd plural features of the inflected infinitive, we can get a partial control interpretation, a case in which the nanny and someone else (the children or other entity) will go to bed early.

- (7) a. O médico_w convenceu [a ama d[as crianças]_i]_k a _{—k/*i} ir
 the doctor convinced the nanny of.the children PREP go.INF
 para a cama cedo.
 to the bed early
 ‘The doctor convinced the children’s nanny to go to bed early.’
- b. O médico_w convenceu [a ama d[as crianças]_i]_k a _{—i/k+...}
 the doctor convinced the nanny of.the children PREP
 irem para a cama cedo.
 go.INF.3PL to the bed early
 ‘The doctor convinced the children’s nanny to go to bed early with someone else /
 convinced the nanny to bring it about that the children go to bed early.’

However, an interesting contrast is obtained when we compare (7b) with (8b), with the matrix verb *obrigar* ‘force’ or the matrix verb *ajudar* ‘help’ and (9b), with the matrix object control verb *impedir* ‘prevent’.

- (8) a. O médico_w obrigou / ajudou [a ama d[as crianças]_i]_k a _{—*i/k}
 the doctor forced / helped the nanny of.the children PREP
 ir para a cama cedo.
 go.INF to the bed early
 ‘The doctor forced / helped the children’s nanny to go to bed early.’

- b. O médico_w obrigou / ajudou [a ama d[as crianças]_i]_k a _{—*i/k+w} ir
 the doctor forced / helped the nanny of.the children PREP
 irem para a cama cedo.
 go.INF.3PL to the bed early
 ‘The doctor forced / helped the children’s nanny to go to bed early with him.’
- (9) a. O médico_w impediu [a ama d[as crianças]_i]_k de _{—*i/k} ir
 the doctor prevented the nanny of.the children PREP go.INF
 para a cama cedo.
 to the bed early
 ‘The doctor prevented the children’s nanny from going to bed early.’
- b. O médico_w impediu [a ama d[as crianças]_i]_k de _{—*i/k+w} ir
 the doctor prevented the nanny of.the children PREP
 irem para a cama cedo.
 go.INF.3PL to the bed early
 ‘The doctor prevented the children’s nanny from going to bed early with him.’

The interpretation of (8b) and (9b) is more restricted and the subject of the inflected infinitive patterns with the subject of the non-inflected infinitive (8a, 9a) to the extent that, in both cases, taking the non-c-commanding DP [as crianças] as an antecedent of the embedded subject is not an option; the embedded subject must be controlled and the controller must be, as expected, local and in a c-commanding position. Since *obrigar* ‘force’ and *ajudar* ‘help’, as well as *impedir* ‘prevent’ are object control verbs, only the object [a ama das crianças] qualifies as a possible controller. The difference in the reading of the non-inflected vs. inflected infinitive only concerns the interpretation of the plural feature of the 3rd plural inflected infinitive: in the latter case, the interpretation of the embedded subject is compatible with split control, being exhausted by the two matrix arguments (the nanny and the doctor), even though pragmatics does not favour this interpretation. In a more neutral context, the interpretation is easier to obtain (see 10); a true partial control interpretation seems more difficult to obtain (a similar example could be built with *impedir* ‘prevent’ or of course with *forçar* ‘force’).

- (10) A Sofia_w obrigou / ajudou [o primo d[o Pedro]_i]_k a _{—k+w/*k+i/*k+...} ir
 the Sofia forced helped the cousin of.the Pedro PREP
 irem para a cama cedo.
 go.INF.3PL to the bed early
 ‘Sofia forced Pedro’s cousin to go to bed early with her.’

As (11) also shows, if the controller is plural ([as primas das amigas]), the interpretation of the inflected and the non-inflected infinitive can be the same and the direct object controller exhausts the reference of the controlled subject – in this case, a split control reading is not excluded but also not made necessary. The sentence in (11), which presents a plural controller, also allows to confirm the interpretation of the subject of a non-inflected infinitive, since contrary to what happens in (8a), the form *ir* in this case could not be ambiguous between a non-inflected infinitive and a 3rd singular inflected infinitive (a 3rd singular inflected infinitive does not bear an overt morpheme).

- (11) O Pedro_w obrigou / ajudou [as primas d[as amigas]_i]_k a _{—*i/k} ir
 the Pedro forced helped the cousins of.the friends PREP go.INF
 / _{—*i/k/k+w} irem para a cama cedo.
 go.INF.3PL to the bed early

As a last type of test, let us consider sloppy readings under ellipsis. Assuming that the controller must be local, we derive the obligatoriness of sloppy readings under ellipsis when a control structure gets elided (Landau 2013: 30). An obligatory sloppy reading under ellipsis has been accepted as a mark of obligatory control and Pires (2006) has used this criterion to show that inflected infinitives under subject control verbs do not maintain an obligatory control reading, i.e. they block control. The following examples are taken from Pires (2006: 94), who builds this test using a pseudo-stripping structure (I use here the term as defined by Depiante 2000):

- (12) O Paulo_j lamenta PRO_{j/*k} ter perdido e a Sílvia também.
 the Paulo_j regrets PRO_{j/*k} have.INF lost and the Sílvia too.
 ‘Paulo_j regrets PRO_{j/*k} to have.INF lost and Sílvia does too.’
 (= Sílvia_i lamenta _{—i} ter perdido)
 (= Sílvia_i regrets _{—i} having lost)
- (13) O Paulo_j lamenta *pro*_k termos perdido e a Sílvia também.
 the Paulo_j regrets *pro*_k have.INF.1PL lost and the Sílvia too
 ‘Paulo regrets our losing and Sílvia does too.’
 (= Sílvia lamenta nós termos perdido)
 (= Sílvia regrets our losing)

Sheehan (2018) equally uses ellipsis, in this case VP ellipsis, to test the possibility of maintaining an obligatory control reading with an inflected infinitive. Barbosa (2021: 50) uses an example in which only an internal argument is omitted, whose ellipsis status is unclear and which involves a passive (example 43 in Barbosa 2021: 50) to argue that the subject of an inflected infinitive under *convencer* ‘convince’ gets a strict interpretation and therefore is not controlled. In what

follows, I use pseudo-stripping, whose elliptical status is arguably clearer, to show that Barbosa's intuition concerning the interpretation of the complement of *convencer* 'convince' is correct. Pseudo-stripping, which was already used by Pires (2006) in simpler contexts, is interesting for the present purposes since in this case the remnant is not necessarily a subject (see Depiante 2000; also Matos 1992 for EP), it can also be an object – something which is useful when we want to test the interpretation of the clausal embedded argument of *convencer*, which contains the infinitive, but we want to contrast the controller, which is another internal argument, an object DP. Also, according to Depiante (2000: 61), pseudo-stripping behaves as surface anaphora, i.e. a case which corresponds to syntactic structure projected but not pronounced (in the perspective of Merchant, 2001). In the case of pseudo-stripping, the remnant is interpreted contrastively and is possibly extracted to the left periphery. Therefore, the following example updates Barbosa (2021)'s example, now using pseudo-stripping. As we can see, taking [a mãe delas], the remnant of ellipsis, to be an object, the interpretation of the sentence is ambiguous, as it includes the possibility of a sloppy reading (paraphrase in a), as well as a strict reading (paraphrase in b).⁴

- (14) O médico convenceu as crianças a tomarem três colheres de
 the doctor convinced the children PREP take.INF.3PL three spoons of
 xarope, mas a mãe delas não.
 medicine but the mother of.them not
 'The doctor convinced the children to take three spoons of medicine, but he did not
 convince their mother.'
- a. = but he did not convince their mother to take three spoons of medicine
 herself (sloppy)
- b. = but he did not convince their mother to bring it about that they (the children)
 take three spoons of medicine (strict)

The same readings are maintained with stripping (Depiante 2000; see Matos 1992 for Portuguese) – in this case, the linear order of the DP and the negation is inverted (see 15).

- (15) O médico convenceu as crianças a tomarem três colheres de
 the doctor convinced the children PREP take.INF.3PL three spoons of
 xarope, mas não a mãe delas.
 medicine but not the mother of.them
 'The doctor convinced the children to take three spoons of medicine, but he did not
 convince their mother.'

⁴ Another interpretation is possible for this sentence, an interpretation in which [a mãe delas] is a matrix subject and, in this case, we take the sentence to mean that the mother did not convince the children to take the medicine. This reading is not relevant in the present context.

- a. = but he did not convince their mother to take three spoons of medicine herself (sloppy)
- b. = but he did not convince their mother to bring it about that they (the children) take three spoons of medicine (strict)

In contrast, as expected, the counterpart with a non-inflected infinitive only allows the sloppy reading:

- (16) O médico convenceu as crianças a tomar três colheres de xarope,
 the doctor convinced the children PREP take.INF three spoons of medicine
 mas a mãe delas não / mas não a mãe delas.
 but the mother of.them not / but not the mother of.them
 ‘The doctor convinced the children to take three spoons of medicine, but he did not convince their mother.’
 = but he did not convince their mother to take three spoons of medicine herself

However, again the interesting contrast is the contrast with what happens when the matrix verb is an object control verb such as *obrigar* ‘force’ (see 17). In the case of pseudo-stripping, we should maintain the interpretation of [a mãe delas] as an object. In agreement with our previous observations, the strict reading is not available independently of the type of embedded infinitive, which means that the subject of the inflected infinitive must maintain a sloppy reading, i.e. it must have a local controller. The same pattern is found with *ajudar* ‘help’ (in 18) or with *impedir* ‘prevent’ (19).

- (17) O médico obrigou as crianças a tomarem / tomar três colheres
 the doctor forced the children PREP take.INF.3PL / take.INF three spoons
 de xarope, mas a mãe delas não / mas não a mãe delas.
 of medicine but the mother of.them not / but not the mother of.them
 a. = but he did not force their mother to take three spoons of medicine herself (sloppy)
 b. = *but he did not force their mother to bring it about that they (the children) take three spoons of medicine (strict)
- (18) O médico ajudou as crianças a tomarem / tomar três colheres
 the doctor helped the children PREP take.INF.3PL / take.INF three spoons
 de xarope, mas a mãe delas não / mas não a mãe delas.
 of medicine but the mother of.them not / but not the mother of.them
 a. = but he did not help their mother taking three spoons of medicine herself (sloppy)
 b. = * but he did not help their mother to bring it about that they (the children) take three spoons of medicine (strict)

- (19) O médico impediu as crianças de tomarem / tomar três
 the doctor prevented the children PREP take.INF.3PL / take.INF three
 colheres de xarope, mas a mãe delas não / mas não a
 spoons of medicine but the mother of.them not / but not the
 mãe delas.
 mother of.them
- a. = but he did not prevent their mother from taking three spoons of medicine
 herself (sloppy)
- b. = * but he did not prevent their mother to bring it about that they (the children)
 take three spoons of medicine (strict)

This indeed confirms that the subject of an inflected infinitive under *convencer* ‘convince’ does not behave as controlled, as shown by Barbosa (2001). However, it also shows that there are subjects of inflected infinitives under object control verbs which behave as obligatorily controlled (when under *obrigar* ‘force’, *ajudar* ‘help’ or *impedir* ‘prevent’). Accordingly, and as a simple extension of what was already shown, we can observe that the subject of an inflected infinitive under *convencer* ‘convince’ can be disjoint in reference from any DP in the clause, contrary to what happens when the matrix verb is *obrigar* ‘force’ or *ajudar* ‘help’. This explains the possibility of the sentence in (20), with an inflected infinitive marked as 1st plural, as well as the rejection of the correspondent case in (21), either with the matrix verb *obrigar* ‘force’ or the matrix verb *ajudar* ‘help’ (*impedir* ‘prevent’ patterns with the latter verbs).

- (20) O diretor_i convenceu o professor_j a _{-k} entregarmos os projetos
 the director convinced the teacher PREP 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.’
- (21) ??/* O diretor_i obrigou / ajudou o professor_j a _{-k} entregarmos
 the director forced / helped the teacher PREP deliver.INF.1PL
 os projetos finais só no fim do período.
 the projects final only at.the end of.the term

The behaviour of the subject of the inflected infinitive in (20), under *convencer* ‘convince’, is suggestive of its pronominal nature. We should therefore test the possibility of alternation with an overt pronoun or a DP. As shown in (22), it is indeed possible to have the clausal complement position of *convencer* filled by an inflected infinitive clause with an overt pronoun or a full DP as subject. On the contrary, the same is not possible under *obrigar* or *ajudar*, as shown in (23) or under *impedir* ‘prevent’. The fact that the embedded subject is (and must be)

postverbal in (22) is common to other classes of verbs selecting inflected infinitival clauses as complements (Raposo 1987).

- (22) O diretor_i convenceu o médico_j a irem eles_k / os enfermeiros
 the director convinced the doctor PREP go.INF.3PL them / the nurses
 ao congresso.
 to.the congress
 ‘The director convinced the doctor to bring it about that they / the nurses go to the congress (and not anyone else).’
- (23) *O diretor_i obrigou / ajudou o médico_j a irem eles_k / os
 the director forced / helped the doctor PREP go.INF.3PL them / the
 enfermeiros ao congresso.
 nurses to.the congress

The impossibility of alternation with an overt DP has been seen as a diagnostic criterion for OC (Williams 1980), and was equally explored by Modesto (2010) and Sheehan (2018), when discussing the status of the subjects of inflected infinitives in different varieties of Portuguese. The different behaviour of the inflected infinitives in (22) and (23) suggests that under *convencer* ‘convince’ we have a non-controlled inflected infinitive (with all the expected properties, including the ability to license a subject) but that under *obrigar* ‘force’ and *ajudar* ‘help’, we have a controlled inflected infinitive. Notice that the only possibility of having an overt pronoun in the subject position of the inflected infinitive under *obrigar* or *ajudar* is a case in which it is interpreted as a bound variable, as shown in (24). This is a possibility in OC structures in Portuguese, as shown by Barbosa (2009). As noticed by Barbosa (2018: 134, footnote 4), a paper centred on this type of subjects, the inflected infinitive is highly preferred in sentences such as (24) – in my judgement, in (24) it is obligatory.

- (24) O diretor_i obrigou / ajudou os médicos_j a irem eles_{j/*k} ao
 the director forced / helped the doctors PREP go.INF.3PL them to.the
 congresso.
 congresso.
 ‘The director forced the doctors to go to the congress themselves.’

The evidence presented until this point suggests that *obrigar/forçar* ‘force’ and *ajudar* ‘help’, as well as *impedir* ‘prevent’ are what we can call consistent (resilient) object control verbs, which maintain an OC interpretation of their infinitival complements, either non-inflected or inflected, whereas *convencer* does not show the same consistency. Along the same lines, it can be shown

that a null subject of an inflected infinitive under *convencer* can be interpreted as having a discourse antecedent:

- (25) Speaker A: E os enfermeiros_k?
 and the nurses
 ‘What about the nurses?’
- Speaker B: O diretor_i convenceu o médico_j a _{-k} irem ao
 the director convinced the doctor PREP go.INF.3PL to.the
 congresso.
 congress
 ‘The director convinced the doctor to bring it about that they (the nurses) go to the congress.’

The same happens with a very common object control verb, the directive verb *dizer* (*dizer para* ‘tell to’), a case of indirect object control. As shown in (26), when occurring with an unambiguous form of non-inflected infinitive (as it is the case in (26a), given the absence of morphology in the verb and the 3rd plural features of the controller), this verb behaves as an object control verb. A similar interpretation seems to be obtained when an inflected infinitive is used (see (26b)). However, given the right context, a non-controlled interpretation of the null subject of the inflected infinitive under this verb can be obtained (27). As shown in (28), an overt subject of the inflected infinitive is also possible under the directive *dizer* ‘tell’.

- (26) a. A Ana_i disse aos amigos_j para _{-j/*i/*k} correr.
 the Ana told to.the friends COMP⁵ run.INF
 ‘Ana told her friends to run.’
- b. A Ana_i disse aos amigos_j para _{-j} correrem.
 the Ana told to.the friends COMP run.INF.3PL
 ‘Ana told her friends to run.’

⁵ There are reasons to believe that *para* is a complementizer, contrary to what happens with *a* introducing the infinitival complement of other object control verbs and which was glossed as a preposition. Assuming a close relation between prepositions and complementizers, Magro (2005) argues that true prepositions favor enclisis (it is the case of *a*, also in the context of object control verbs), whereas complementizers induce proclisis. This is the case of *para*, which induces proclisis, also when introducing the complement of a control verb. Duarte & Gonçalves & Miguel (2005) equally treat *para* as C (more precisely, the spell-out of T-to-C) in object control structures. This variation within object control verbs is certainly relevant to the analysis of these structures and may contribute to explain the post-verbal position of the subject in the infinitival complement of *convencer* (namely, if the embedded infinitive raises to C) vs. the pre-verbal position of the subject in the complement of the directive *dizer*, but this is not directly related to the main issue discussed in the present paper and it will be left for future research.

(27) Speaker A: E as crianças_k?
and the children
'What about the children?'

Speaker B: O médico_i disse à mãe_j para _{-k} levarem a vacina.
the doctor told to.the mother COMP take.INF.3PL the vaccine
'The doctor told the mother to bring it about that the children take
the vaccine.'

(28) O médico disse à mãe para as crianças / elas levarem a
the doctor told to.the mother COMP the children they take.INF.3PL the
vacina.
vaccine
'The doctor told the mother to bring it about that they / the children take the vaccine.'

It seems that *dizer para* (the directive *dizer*) is not a consistent object control verb, similarly to *convencer* 'convince'. In this case, OC is not maintained with inflected infinitives.

Returning now to *convencer* 'convince', there is another dimension in which *convencer* does not show a consistent behaviour as an object control verb: given a relevant context, its interpretation can be coerced into a subject control interpretation, i.e. it allows control shift. The sentences in (29) and (30) exemplify this possibility – (30) was extracted from the public database CETEMPúblico⁶ and seems to favour a control shift reading:

(29) Os meninos_i convenceram a mãe_k a _{-i} ir para cama tarde.
the children convinced the mother PREP go.INF to bed late
'The children convinced their mother to bring it about that they go to bed late.'

(30) Mas infantes, que acharam isso mais próprio de novos-ricos do
but infants who found that more likely of 'nouveau-riche' PREP.the
que de si, convenceram o pai a realizar a expedição
that PREP them convinced the father PREP undertake the expedition
ao exterior.
to.the exterior
'But the infants, who found it more fitting of nouveau riche people than of themselves,
convinced their father to (bring it about that they) undertake the expedition abroad.'
(CETEMPúblico, *par = ext1471434-pol-94a-1*)

⁶ <https://www.linguateca.pt/CETEMPUBLICO/>.

In addition, another ditransitive verb which is recognized as easily allowing control shift, *pedir* ‘ask’, is also a verb which does not consistently behave as an object control verb in the relevant contexts. Control shift with *pedir* is exemplified in (31), a case in which both object and subject control interpretations are available. In (32), the preference for what looks like an object control reading is explained by the 3rd plural morphology of the infinitive, only compatible with the features of the indirect object. The sentences in (33) and (34) show that the inflected infinitive under *pedir* is not obligatorily controlled.

- (31) A Ana_j pediu aos irmãos_i para _{-i/j} correr.
 the Ana asked to.the brothers COMP run.INF
 ‘Ana asked her brothers to run.’
- (32) A Ana_j pediu aos irmãos_i para _{-i} correrem.
 the Ana asked to.the brothers COMP run.INF.3PL
 ‘Ana asked her brothers to run.’
- (33) Speaker A: E as crianças_k?
 and the children
 ‘What about the children?’
- Speaker B: O médico_i pediu à mãe_j para _{-k} levarem a vacina.
 the doctor asked to.the mother COMP take.INF.3PL the vaccine
 ‘The doctor asked their mother that they take the vaccine.’
- (34) O médico pediu à mãe para as crianças / elas levarem a
 the doctor asked to.the mother COMP the children they take.INF.3PL the
 vacina.
 vaccine
 ‘The doctor asked the mother to vaccinate the children / that they take the vaccine.’

In sum, it seems that looking at object control verbs in the light of their behaviour when taking inflected infinitive complements allows to identify two subclasses: verbs that generate a “resilient” object control environment and verbs which create less resilient contexts. The first group (the “resilient” class) seems to be a small group including *obrigar* ‘force’, *forçar* ‘force’, *ajudar* ‘help’ and *impedir* ‘prevent’, with the latter predicate selecting the preposition *de* instead of *a*. The second group (the “non-resilient” class) includes *convencer* ‘convince’, *persuadir* ‘persuade’, as well as *dizer (para)* ‘tell to’ and *pedir (para)* ‘ask’ and is probably less homogeneous, an issue we will return to. At least a subset of the non-resilient object control verbs allows control shift; the resilient control verbs do not. We will try to suggest an explanation for these facts in the following section.

4. Inflected infinitives under object control verbs and the theory of Control

The first relevant observation concerning the split in inflected infinitives under object control verbs identified in the preceding section relates this split with two different types of control defined in Landau (2015). The two verbs identified as paradigmatic in the preceding section (*obligar* ‘force’ and *convencer* ‘convince’) are included by Landau (2015) in two different classes of verbs, associated to two different types of control: *force* is treated by Landau (2015) as part of a small set of object control verbs giving rise to predicative object control – this is a small subclass of verbs described as implicative and causative and also as non-attitude predicates (other elements identified as belonging to the class are *compel*, *coerce* and *impose*); in contrast, *convince* is classified by Landau (2015) as an attitude predicate giving rise to logophoric control – other object control verbs which Landau includes in the subgroup of attitude predicates, which occur in logophoric control structures, are *persuade* or *dissuade* (also psychological verbs) and communicative verbs, including *tell* and *ask*. It is not the aim of the present paper to fully discuss the attitude/non-attitude status of the different predicates placed by Landau (2015) in two different groups. Instead, I highlight the fact that Landau argues that there is a contrast in the effects of inflection on the two types of control, associated to the two different subgroups of predicates: predicative control holds in the presence of inflection, whereas logophoric control only holds when [+Agr] is absent (Landau’s *OC-NC Generalization*).

To this extent, the split found in EP data concerning the interpretation of inflected infinitives under *obligar* ‘force’ and *convencer* ‘convince’ (which Landau associates to predicative control – the former – and to logophoric control – the latter) matches well with the predictions of Landau (2015). According to the author, the *OC-NC generalization* mentioned above is a formal constraint of grammar and there is no deep semantic reason that justifies the selective effect of agreement; the source of the explanation for the different effects of agreement in the different subsets of verbs is syntactic and comes from the different derivations of predicative vs. logophoric control. Landau’s assertions concern the full set of control verbs, namely, subject and object control verbs, and here we are zooming in on the restricted set of object control verbs. In what follows, I will try to establish a relation between the two subsets of object control verbs, their semantics and the availability of non-controlled inflected infinitives under these verbs. In doing this, the focus will be on the set of “resilient” object control verbs, i.e. those that maintain an obligatory control interpretation of their inflected infinitival complements.⁷

⁷ Stiebels (2007) presents a typology of control and it may be also relevant to briefly consider whether the subclasses of control verbs considered in the present paper match those defined by the author. Importantly, Stiebels (2007) distinguishes ‘inherent’ and ‘structural’ control, associating inherent control with “predicates that require control readings independent of the instantiated structure of sentential complementation (e.g. a directive predicate such as *zwingen* ‘force’)” (p. 2). Even though *force* is given here as a case of inherent control, directive predicates (this

Landau (2015) classifies *force* as a non-attitude predicate, but causative and implicative – this verb corresponds to *forçar* or *obrigar* in EP. Even though we cannot deny that the interpretation of the sentence in (35a) might imply considering the mental state of the participant corresponding to the matrix subject, in (35b) no mental state is involved and it would be impossible to assume that this is an attitude context.⁸

- (35) a. O Rui forçou / obrigou a Ana a comer a feijoada.
 the Rui forced / forced the Ana PREP eat.INF the bean stew
 ‘Rui forced Ana to eat the bean stew.’
- b. O carro forçou / obrigou a bicicleta a encostar.
 the car forced / forced the bike PREP pull.INF over
 ‘The car forced the bike to pull over.’

However, the interpretation of *obrigar* or *forçar* ‘force’ is causative in both contexts and I will concentrate here on the causative interpretation. Discussing the expression of causation, Shibatani & Pardeshi (2002) argue for a causative continuum, from direct causation to indirect causation. Citing preceding work by Shibatani, the authors assume that indirect causation is associated to directive situations, namely situations in which the causer gives an instruction/direction to the causee. In general terms, the authors define “direct causation as a situation involving an agentive causer and a patientive causee” and “indirect causation as one involving two agentive

would include *ask* or *tell to* (p. 33) as well as *persuade* (p. 41) are also defined as associated with inherent control. This categorization would be at odds with the behaviour of *convencer* ‘convince’, *persuadir* ‘persuade’, *pedir* ‘ask’, as well as the directive *dizer* ‘tell to’, to the extent that they are compatible with non-controlled inflected infinitive complements (as well as finite complements, as we will later explore). Therefore, even though the concept might be close, the “resilient control” verb class does not match the class of verbs associated to “inherent control” by Stiebels. Nevertheless, a further subcategorization in Stiebels’ proposal should be considered: the split between weak and strong inherent control verbs. Implicative verbs, such as *dare*, as well as modals, are classified as ‘strong inherent control verbs’, verbs which do not accept control-neutral structures, such as finite clauses or nominalizations, as complements. These contrast with ‘weak inherent control verbs’, which accept complements which are control-neutral structures, but instantiate a control reading of these structures. Therefore, the question is whether our “resilient control” class matches the “strong inherent control” properties. This does not seem to be the case: predicates such as *obrigar* ‘force’, *ajudar* ‘help’, *impedir* ‘prevent’ allow nominalized complements (e.g. *O ataque obrigou à capitulação.*, ‘The attack forced the capitulation’), as well as finite complements, as it will be shown at the end of this paper.

⁸ Importantly, there is an interpretation of (35a) which shows that *obrigar/force*, even if used with a [+human] subject, does not imply considering his mental state. As Alice Jesus (p.c.) pointed out, the sentence could have a continuation such as the following:

- (i) O Rui forçou /obrigou a Ana a comer a feijoada,
 the Rui forced / forced the Ana PREP eat.INF the bean stew
 ao trocar, por lapso, as marmitas.
 PREP.the switch.INF by mistake the lunch boxes
 ‘Rui forced Ana to eat the bean stew, when by mistake he switched the lunch boxes.’

participants, one an agentive causer and the other an agentive causee” (Shibatani & Pardeshi 2002: 140). Considering the verb *deixar* ‘let’ in EP, which is traditionally considered a syntactic causative, we could suggest that it can work both as a direct causative (36a) and as an indirect causative (36b) (in (36b), *deixar* ‘let’ also exemplifies what Shibatani & Pardeshi 2002 call permissive causation).

- (36) a. O Jorge deixou a porta bater.
 the Jorge let the door slam
 ‘Jorge let the door slam.’
- b. O Jorge deixou o Pedro sair.
 the Jorge let the Pedro go out
 ‘Jorge let Pedro go out.’

Given this type of definition, it is natural to include *obrigar* ‘force’, as well as *convencer* ‘convince’ or *persuadir* ‘persuade’, in the set of causative verbs – in fact, Shibatani & Pardeshi (2002) treat *cause*, *persuade* and *force* as causatives, but causatives which retain their literal meaning, in contrast with the semantically bleached *get*, *make* or *have*. The idea of a causative continuum is akin to the position maintained by Nadathur & Lauer (2020) that different causatives express different causal relations and therefore that no unitary view of causation is desirable: “causation, at least as it is encoded in language, cannot be captured by a single type of dependency relationship, but instead reflects an umbrella notion, comprising a set of contrasting ‘bringing-about’ relations” (Nadathur & Lauer, 2020: 30).

Let us now consider in more detail the case of *obrigar* ‘force’. At a certain degree, we can identify similarities between the interpretation of *obrigar* and certain properties of the English causative *make*, as defined by Nadathur & Lauer (2020). First, there is a coercive implication associated with the meaning of *obrigar*: the causee did not make a free decision when bringing about the event in the embedded clause. Second, as the same authors suggest, there is a direct relation between the coercive implication and an interpretation of causal sufficiency: sentences with *obrigar*, such as (37) denote a causal dependence which can be defined as causal sufficiency, i.e. given the occurrence of the cause, the occurrence of the effect was guaranteed. Karttunen (1971: 340) states that “an implicative main verb carries a presupposition of necessary and sufficient condition which alone determines whether the event described in the complement took place”. In the case of *obrigar* ‘force’, only a sufficient condition is presupposed, as noticed by Karttunen (1971: 357). According to Karttunen’s (1971) definition, this interpretation of sentences with *obrigar* explains the fact that *obrigar* entails the truth of its complement under positive polarity, as shown in (37a) – since Rui forcing Ana to eat the bean stew is a sufficient condition for Ana to eat the bean stew, the truth of the embedded proposition is entailed under

positive polarity. However, Rui forcing Ana to eat the bean stew is not a *necessary* condition for Ana to eat the bean stew, explaining that *obrigar* does not entail the falsity of the embedded proposition under negative polarity, as shown in (37b) (but see Nadathur 2016 for a more complex discussion of causal sufficiency and implicativity).

- (37) a. O Rui forçou / obrigou a Ana a comer a feijoada
 the Rui forced / forced the Ana PREP eat.INF the bean stew
 (*mas ela não comeu, porque desmaiou antes).
 but she NEG eat because fainted before
 ‘Rui forced Ana to eat the bean stew (*but she did not eat it, because she fainted before that).’
- b. O Rui não forçou / obrigou a Ana a comer a feijoada
 the Rui NEG forced / forced the Ana PREP eat.INF the bean stew
 (mas ela comeu, porque adora).
 but she ate because loves
 ‘Rui didn’t force Ana to eat the bean stew (but she ate it, because she loves it).’

This means that *obrigar* ‘force’ cannot be defined as an implicative in the stricter sense of Karttunen (1971), since under negative polarity, *obrigar* ‘force’ does not entail that the embedded proposition is false (37b). This places *obrigar* in the class of *one-way implicatives*, which are defined by Karttunen (2012) as yielding an entailment only under one polarity.⁹ *Force* is given by the author as an example of a one-way implicative, of a subtype corresponding to a causative, namely an implicative which yields an entailment under one polarity.¹⁰

⁹ *One-way implicatives* contrast with *two-way implicatives*, such as *manage to*, which yield an entailment both in positive and negative contexts. The causative *deixar* ‘let’, in contexts such as (36a), behaves as a two-way implicative:

- (i) O Jorge deixou a porta bater (*mas ela não bateu).
 the Jorge let the door slam but it NEG slammed
- (ii) O Jorge não deixou a porta bater (*mas ela bateu).
 the Jorge NEG let the door slam but it slammed

The permissive causative *deixar* ‘let’ in (36b) does not behave in the same way, something that we cannot develop here.

¹⁰ Some speakers accept the continuation of the sentence in (37a), but reject it in a sentence such as (i), in which *obrigar* ‘force’ cannot have an attitude interpretation and only a purely causative interpretation is available:

- (i) O carro obrigou a bicicleta a encostar,
 the car forced the bike PREP pull.INF over
 (*mas ela não encostou porque parou antes.)
 but it NEG pul over because stopped before

Both *ajudar* ‘help’ and *impedir* ‘prevent’ can also be understood as part of a large set of verbs expressing cause and cause-like concepts, according to different models of causation (see Wolff & Song & Driscoll 2002). Specifically, in a “Force dynamics” framework, “causing” is analyzed into primitives which include both “helping” or “hindering” (Talmy 1988). For what is relevant for the present paper, it is also possible to show that *ajudar* ‘help’ and *impedir* ‘prevent’ behave as (one-way) implicatives, as it happens with *obrigar* ‘force’. This is shown in (38) for *ajudar* and in (39) for *impedir*, in the latter case with the relevant modification for a negative implicative (Karttunen 1971; 2012).¹¹

- (38) A Ana ajudou a Teresa a subir as escadas
 the Ana helped the Teresa PREP climb the stairs
 (*mas ela não subiu porque se recusou)
 but she NEG climb because CL refused
 ‘Ana helped Teresa climbing the stairs (*but she did not climb it, because she refused to do it.)’
- (39) A Ana impediu a Teresa de subir as escadas
 the Ana helped the Teresa PREP climb the stairs
 (*mas ela subiu)
 but she climb
 ‘Ana prevented Teresa from climbing the stairs (*but she climbed it).’

Now let us look at the case of *convencer* ‘convince’ and *persuadir* ‘persuade’. In the case of these predicates, a notion of causal influence is maintained, but the causal link between Rui’s action in (40) and the event of Ana eating the bean stew is more indirect: no causal sufficiency relation is expressed in sentences with *convencer* or *persuade*. The sentence in (40a) must mean that 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. In any case, and contrary to what happens under *obrigar* ‘force’, the causee, even if under the influence of the causer, makes a free decision when initiating the event described in the embedded clause. If nothing else is said, and if Ana made this decision, we can infer that she did eat the stew, but it might be that something else happened or that she changed her mind before completing the event and the stew was not eaten. In the case of *convencer* ‘convince’ or *persuadir* ‘persuade’, and again contrary to what happens with *obrigar* ‘force’, there is no coercive implication and there is not an interpretation of causal sufficiency, to

The same speakers seem to recruit for *obrigar* ‘force’ with a [+human] subject an interpretation close to *mandar* ‘tell to’ or closer to the interpretation of *convencer* ‘convince’ that we will be discussing in the next paragraph. These speakers present less clear contrasts between *obrigar* and *convencer* in what concerns obligatory control tests.

¹¹ *Impedir* ‘prevent’ contrasts with *proibir* ‘forbid’, which is not an implicative verb and behaves as *convencer* ‘convince’ with respect to licensing non-controlled inflected infinite complements.

the extent that given the occurrence of the cause, the occurrence of the effect is not guaranteed. As a result, the inference that the embedded proposition is true under positive polarity seems to be a Gricean implicature, which can be cancelled (see 40a); no entailment is found also under negative polarity (see 40b).

- (40) a. 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 eat because fainted before
 ‘Rui convinced / persuaded Ana to eat the bean stew (but she did not eat it, because she fainted before that).’
- b. O Rui não convenceu / persuadiu a Ana a comer a feijoada
 the Rui NEG convinced / persuaded the Ana PREP eat.INF the bean stew
 (mas ela acabou por comê-la, porque teve fome antes de ir
 but she ended PREP eat it because was hungry before PREP go
 para a cama).
 to the bed
 ‘Rui did not convince / persuade Ana to eat the bean stew, but she ended up eating eat, because she was hungry before going to bed.’

The difference between *obrigar* ‘force’ and *convencer* ‘convince’/*persuadir* ‘persuade’ is also in line with the analysis of Jackendoff & Culicover (2003), which is followed by Barbosa (2021) when discussing the behaviour of *persuadir* ‘persuade’. According to Jackendoff & Culicover (2003: 537), a verb such as *persuade* contains the predicate *INTEND* as part of its meaning and corresponds to ‘cause to come to intend’. This can be seen in (41). This contrasts with *force*, which would correspond to ‘cause to act’ (42).

(41) X CS [Y^α INTEND [α ACT]]

(42) X CS Y^α [α ACT]

According to Jackendoff & Culicover (2003), the predicate *INTEND* is a two-place function whose arguments are the intender and an action and, according to the representation in (41), a verb of intending should not allow a reading in which the intender is not the subject of the embedded action. However, Jackendoff & Culicover (2003:544), following and adapting Sag & Pollard (1991), suggest a mechanism of coercion which allows to reinterpret the complement as the action ‘bring about situation’. In this case, the possibility of a sentence such as (43) would be explained by the mechanism of coercion represented in (44).

meaning itself correlates with the impossibility of the semantic operation that would justify the occurrence of a non-controlled inflected infinitive. As it will be shown at the end of this section, the facts described in the present paper are not totally predicted by Landau’s analysis of predicative control.

A related issue is control shift, which we have shown to be available with *convencer* ‘convince’, but not with *obrigar* ‘force’. The sentence in (48), which repeats (29), exemplifies a case of control shift with *convencer* ‘convince’ (an equivalent sentence could be obtained with *persuadir* ‘persuade’). For control shift to obtain with these verbs and without an embedded passive, there must be some authority relation between the participant corresponding to the direct object (the mother) and the participant corresponding to the matrix subject (the children).

- (48) Os meninos_i convenceram a mãe_k a _{-i} ir para cama tarde.
 the children convinced the mother PREP go.INF to bed late
 ‘The children convinced their mother to let them go to bed late.’

Farkas (1988: 49) signals the acceptance of control shift with *persuade* and *convince* in English when the infinitival complement is passive and presents sentences in which permission is explicitly involved:¹⁴

- (49) John persuaded / convinced Bill to be allowed to leave.

The same type of interpretation seems to be associated to control shift with *pedir* (ask) – see subject control in (50b), in contrast with (indirect) object control in (50a).¹⁵

- (50) a. O professor_i pediu ao aluno_k para _{-k} sair.
 the teacher asked to.the student COMP leave.INF
 ‘The teacher asked the student to leave.’
 b. O aluno_i pediu ao professor_k para _{-i} sair.
 the student asked to.the teacher COMP leave.INF
 ‘The student asked the teacher to leave.’

Along the lines of Sag & Pollard (1991) and Jackendoff & Culicover (2003), the control shift interpretation can also result from semantic coercion – and Barbosa (2021: 65) observes that “the contexts that license an inflected infinitive with independent reference are strongly reminiscent of the contexts that license control shift”. Sag & Pollard treat the case of control shift with *ask*

¹⁴ The observation that *persuade* and *convince* allow control shift in English is also found in Landau (2015), who presents an example with an embedded passive.

¹⁵ The same type of notion of permission seems to be involved in control shift with *promise*.

as a case of *bring about* coercion, whereas Jackendoff & Culicover (2003) argue that another type of coercion (a *someone allow*, ‘allow/enable X to’) is involved in the interpretation of these sentences. It is beyond the goals of the present paper to discuss the type of coercion involved in control shift with different types of predicates. The point here would rather be to signal that the same type of mechanism would be able to derive the control shift interpretations and the non-controlled interpretations of *convencer* ‘convince’ and *persuadir* ‘persuade’. In that case, the fact that implicative object control verbs such as *obrigar* ‘force’ do not allow control shift would be a consequence of the unavailability of the same type of coercion mechanism in the case of these verbs.

Another relevant result of the preceding section was the contrast between *convencer* ‘convince’ and *obrigar* ‘force’ with respect to the availability of partial and split control readings: whereas partial control, defined as a case in which the controller is included in the reference of the controlled subject but does not exhaust it (Landau 2013: 157), is available under non-implicative control verbs, the verbs in the subclass of *obrigar* ‘force’ only allow for split control, i.e. a more restrictive reading, in which the reference of the controlled subject is exhausted by (and split between) the matrix arguments, which c-command the embedded subject.

The possibility of partial control readings in the complement of non-implicative object control verbs is expected, under the hypothesis put forward by Landau (2015): predicates licensing logophoric control complements allow for partial control readings. In addition, in the case of the inflected infinitive complements of *convencer* ‘convince’ and *persuadir* ‘persuade’, if we accept that these are not instances of control, we can assume that what looks like partial control in these contexts is not a real case of partial control, if this is a case of an inflected infinitive which licenses a *pro* subject – this is the line of argumentation of Barbosa (2021), who suggests that semantic coercion, which explains the availability of non-controlled inflected infinitives under *convencer* ‘convince’, is also able to explain readings of the subject of embedded inflected infinitives which are apparent cases of partial control.

Implicative control verbs do not allow a partial control reading, but they induce split readings of a plural inflected infinitive, when the controller is singular. The fact that these are true split readings is shown by the fact that they license a reciprocal coindexed with the matrix arguments (see Jackendoff & Culicover 2003: 548): the following examples illustrate these facts with both *obrigar* ‘force’ and *impedir* ‘prevent’.

- (51) a. O pai_k obrigou o Rui_i a _{—i+k} pintarem-se_{i+k} um ao outro_{i+k}.
 the father forced the Rui PREP _ paint CL each to.the other.MASC
 ‘The father brought it about that he and Rui painted each other.’

- b. O pai_k impediu o Rui_i de _{-i+k} se_{i+k} empurrarem um ao
 the father prevented the Rui PREP ₋ CL push.INF.3PL each to.the
 outro_{i+k}.
 other.MASC
 ‘The father prevented a situation in which he and Rui would push each other.’

Although we have argued that inflected infinitives under the small class of implicative object control verbs do not block control, which is predicted by the hypothesis developed in Landau (2015), the fact that we find split control in this context is unexpected under Landau’s (2015) analysis of control: according to the author, control under these verbs is predicative control, it is derived as predication, and predicative control excludes split readings, since predication also does not allow split readings (as shown in 52).

- (52) *O João_i encontrou o Pedro_k irritados _{-i+k} um com o outro_{i+k}.
 the João met the Pedro irritated.MASC.PL at each other

We must finally consider another aspect in which we find a clear split between implicative object control verbs and other object control verbs: the behaviour of these verbs when combined with a finite complement. *Convencer* ‘convince’ occurs with a subjunctive finite complement which may take a null subject or an overt subject (53 a,b). In addition, the null subject has a free interpretation, as shown in (53c). Notice that we are still dealing here with the reading of *convencer* associated to Intent; the epistemic *convencer* takes indicative.

- (53) a. O Jorge_i convenceu a mãe_k a que _{-k} vendesse os quadros
 the Jorge convinced the mother PREP COMP sell.SBJV.3SG the paintings
 ao museu.
 to.the museum
 ‘Jorge convinced his mother to sell the paintings to the museum.’
- b. O Jorge convenceu a mãe a que os avós
 the Jorge convinced the mother PREP COMP the grandparents
 vendessem os quadros ao museu.
 sell.SBJV.3PL the paintings to.the museum
 ‘Jorge convinced his mother to bring it about that the grandparents sell the
 paintings to the museum.’
- c. E os avôs_w? O Jorge_i convenceu a mãe_k a que
 and the grandparents the Jorge convinced the mother PREP COMP
_{-w} vendessem os quadros ao museu.
 sell.SBJV.3PL the paintings to.the museum
 ‘What about grandparents? Jorge convinced his mother to bring it about that his
 grandparents sell the paintings to the museum.’

The sentences in (53) contrast with those presented in (54). First, with the matrix verb *obrigar* ‘force’, subjunctive complements with null subjects in (54a) and (54b), parallel to (53a), are felt as not natural. Another interesting contrast is found between (54c) and (54d): even though a lexical DP is possible in the subjunctive complement of *obrigar* (54d), this is only possible if the verb does not occur in a ditransitive structure (see the contrast between (54d) and (54c)). An example of the same type found in the press is presented in (54e).

- (54) a. ??O diretor_i obrigou o funcionário_k a que _{—k/*w} declarasse
 the director forced the worker PREP COMP declare.SUBJ.PST.3SG
 os rendimentos.
 the income
 ‘The director forced the worker to declare his income.’
- b. ??A lei obriga os cidadãos_k a que _{—k/*w} declarem
 the law forces the citizens PREP COMP declare.SUBJ.PRS.3PL
 os rendimentos.
 the income
 ‘The law compels the citizens to declare their income.’
- c. *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
- d. 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.’
- e. Novo Banco obriga a que todas as propostas de
 Novo Banco [a bank] forces PREP COMP all the proposals of
 compra da Comporta sejam votadas.
 acquisition of.the Comporta be.SUBJ.3SG voted
 ‘Novo Banco requires all the proposals concerning the acquisition of Comporta to be voted.’

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Let us consider the contrast between (53a) and (54a,b). One could consider to justify the rejection of these sentences as an effect of obviation, understood as competition between infinitive and subjunctive, in the sense of Farkas (1992) (or, only to some extent, also Hornstein & San Martin 2001): the interpretation of the null subject in the subjunctive complement of *obrigar* is not distinct from a controlled subject in an infinitival complement of the same verb; this is not exactly the case of the subjunctive complement of *convencer* ‘convince’, given the right context, as shown

in (53c) above.¹⁶ However, an explanation centered on the contrast between subjunctive and infinitive would not explain the following contrast:

- (55) a. ??A lei obriga os cidadãos a que _ declarem os rendimentos.
 the law forces the citizens PREP COMP declare.SUBJ.3PL the income
 ‘The law compels the citizens to declare their income.’
- b. 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.’
- c. A lei obriga a que _ declarem os rendimentos.
 the law forces PREP COMP declare.SUBJ.3PL the income
 ‘The law compels people to declare their income.’

(55a) repeats (54b) and suggests the rejection of the subjunctive complement with a null subject; (55b) repeats (54d) and shows acceptance of the subjunctive complement with an overt subject but in a structure which is not ditransitive, i.e. there is no direct object (there is even no space for an implicit argument in the interpretation of 55b). The paradigm is completed with (55 c): in this case, we show that the subjunctive complement with a null subject is accepted in the transitive structure (i.e. when no direct object is projected, in a structure parallel to 55b). This contrast is explained again if we resort to the semantics of the verb. If we adopt the view of Jackendoff & Culicover (2003), the same type of coercion mechanism allowing the occurrence of non-controlled inflected infinitives under *convencer* ‘convince’ would explain the availability of the finite complement. The fact that the semantics of *obrigar* ‘force’, linked to its interpretation as an (one-way) implicative, precludes the possibility of the same type of coercion explains the unavailability of (54a, c) or (55a).

As for the possibility of a finite complement to *obrigar* ‘force’ in a transitive structure, it is possible that it corresponds to a different configuration, which Jackendoff & Culicover (2003: 539) argue that some force-dynamic predicates can display: X CS [EVENT]. In this case, according to the authors, these verbs would look like raising-to-object/ECM verbs. Given the current discussion concerning the nature of Control and the suggestion that Control might result of movement (Hornstein, 1999), therefore not distinct from raising, it could be tempting to

¹⁶ Farkas (1992), notes some mild difficulty in accepting coreference with the direct object in the case of overt pronominal subjects of subjunctive complements to *convaincre* ‘convince’ in French (i) and attributes it to obviation, even though suggesting that obviation effects are stronger with subject control verbs and this would be an indication that obviation is subject oriented (following a remark by Picallo 1985, *apud* Farkas 1992).

(i) ?Marie a convaincu Paul_i qu’ il_i s’en aille.
 M. has convinced P. that he leave.SBJV

see here an argument for the analysis of control under implicative verbs as derived by raising. However, the availability of split control readings for obligatorily controlled inflected infinitives under these verbs precludes that line of argumentation. A movement analysis of control makes it difficult to explain the availability of split readings.¹⁷

A final consequence of what has been observed is that the behaviour of non-implicative object control verbs might be less homogeneous, if their acceptance of non-controlled inflected infinitives depends on (different types of) semantic coercion, as well as other conditions yet to be investigated. This is beyond the scope of the present paper, which focuses on the particular behaviour of the smaller group of implicative object control verbs.

In the present paper, we developed a view of a set of object control verbs as verbs occupying different places in a causative continuum and we linked this to different semantic properties of these verbs and to their behaviour in control structures. The idea that semantics is involved in controller choice is a relevant trend in the literature (see Farkas 1988; Stiebels 2007 for a review). According to the view of object control verbs sketched here, the lexical semantics of the verb must be involved in controller choice: if the object control verb is seen as a causative of the types described here, this must result in a control reading described as object control. This by itself would be a view deviating from the association of controller choice to strict syntactic locality, in the terms defined by the Movement Theory of Control (Hornstein 1999). However, if lexical semantics is also linked to the availability of controlled inflected infinitives, this is also an argument for a larger weight of semantics than the Movement Theory of Control allows. The interpretation of these structures must be explained by a model with a strong syntax-semantics interface, where coercion mechanisms can also be explained, as a result of different conditions, in certain cases also pragmatic conditions.

Finally, a note should be added concerning learnability. How can the fine-grained contrasts defined here between object control verbs be acquired? I would like to suggest that the mapping established between the number of lexically overt arguments which occur in a sentence and the semantic interpretation of the verb might be at the core of (or at least contribute to) an explanation for the acquisition of the semantic structure of these verbs (and consequently for the acquisition of the fine-grained semantic and syntactic restrictions that we have discussed). An important assumption of the syntactic bootstrapping hypothesis is that children are biased to link nouns in sentences to participant-roles in events (Gleitman 1990; see also a recent synthesis in

¹⁷ The discussion of the syntactic nature of *obligar* 'force' gains from comparing it with syntactic causatives, which can be analysed as cases of Raising-to-Object, such as *deixar* 'let'. A relevant difference between the two types of verbs is indeed the availability of an embedded infinitive mismatching in number features the causee / controller, i.e. the availability of split readings. However, this does not preclude that *obligar* 'force' may have a counterpart corresponding to a transitive verb, which indeed occurs with raising. This will be developed in separate work dedicated to discussing the syntactic analysis of these and related structures (in progress).

Fisher & Jin & Scott 2020). It is possible that by hearing direct object control verbs such as *obligar* ‘force’ and *convencer* ‘convince’ in different subcategorization frames (specifically in ditransitive vs. transitive frames with finite embedded complements), children can be guided towards having access to the subtle meaning differences between these verbs. A prediction might also follow: since children can only rely on positive evidence, it is possible that the default interpretation of an object control verb falls into the *obligar* ‘force’ category and only upon accessing positive evidence (namely, sentences which describe situations with three participants) children assume that a particular verb may fall into the *convencer* ‘convince’ type.

5. Conclusion

This paper argues that not all object control verbs behave similarly with respect to the interpretation of inflected infinitives. In particular, we have shown that implicative object control verbs create resilient obligatory control contexts. In the resilient class, obligatory control is maintained even in the case of inflected infinitives and a plural inflected infinitive with a singular controller can be interpreted with a split control reading, but not a partial control reading. As for the non-implicative verbs analysed in the present paper, they belong to the non-resilient class, to the extent that inflected infinitives block obligatory control in their complements and both non-controlled and partial control readings are available; however, more research is probably needed to determine the behaviour of different non-implicative control verbs. To the extent of the argument developed here, the entailment works in one direction: if an object control verb is an implicative, its inflected infinitival complement resists non-controlled readings.

In general, a correlation was found between the semantics of implicative object control verbs and their behaviour with respect to the interpretation of inflected infinitive complements. The two types of verbs compared in this paper also fall in the two different classes defined by Landau (2015) for control verbs, corresponding to different types of control: according to Landau, the implicative *obligar* ‘force’ induces predicative control and the non-implicative *convencer* ‘convince’ logophoric control. However, we have shown, contrary to Landau (2015), who suggests that split control is not possible with predicative control, but who does not discuss inflected infinitives, that split control is available as the interpretation of a plural inflected infinitive under an implicative object control verb in EP, which means that the analysis of predicative control and the hypothesis that the implicative meaning is correlated with control as direct predication cannot be accepted without further discussion. A more detailed discussion of this issue is left for future research.

Abbreviations

1 – 1st person

2 – 2nd person

3 – 3rd person

CL – clitic

COMP – complementizer

INF – infinitive

M – masculine

NEG – negation

PL – plural

PREP – preposition

SBJV – subjunctive

SG – singular

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Competing interest

The author has no competing interests to declare.

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