Partial Control, inflected infinitives and defective intervention

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Abstract

Contrary to what has often been claimed in the literature, European Portuguese (EP) inflected infinitives can participate in Obligatory Control, both Partial and Exhaustive, as data from three online surveys show. This supports the hypothesis that there are two distinct ways to establish a Control relation: via movement or PRO, with some languages making use of both strategies (Cinque 2006, van Urk 2010, Grano 2012, building on Landau 2000). A unified analysis is proposed based on (i) Hornstein's (1999) claim that a single DP can bear multiple θ-roles and (ii) Chomsky's (2000, 2001) view of movement as Agree+EPP. A θ-head bears the feature [D:], forcing it to probe its visible complement domain for a potential argument. Caseless DPs Agree and then raise to acquire a second θ-role. PRO_i, however, acts as a defective thematic intervener because it Agrees with θ-head, valuing [D:i] but has Case (Landau 2006 $i.a.$). As a result, a distinct DP must be externally merged with the θ-head to satisfy its EPP feature and absorb its θ-role. Because [D:i] is already valued, however, this externally merged DP must be non-distinct from PRO_i, yielding either Partial or Exhaustive Control.

The problem

Pires (2001, 2006: ch4) claims that:

uninflected infinitives participate in **obligatory control** (OC)
inflected infinitives participate in **non-obligatory control** (NOC)

But, in some contexts, the subject of an inflected infinitive must be Controlled (Raposo 1989, cf. Rabelo 2004, 2010, Modesto 2007, 2010 on Brazilian Portuguese):

(1) O professor obrigou *=me/ os alunos   a lerem   o livro.
the teacher obliged =me/ the students to read.INF.3PL   the book

Moreover, inflected infinitives also appear to permit Partial Control (PC) (for around half those surveyed), which Landau (2000) shows to be a form of OC:

(2)%O Pedro pensa   reunirem=se   amanhã.
the Pedro   thinks.3SG meet.INF.3PL=SE.3   tomorrow
Lit. 'Pedro thinks to meet tomorrow.'

How can we account for these patterns in a principled manner?

Tensed/untensed Infinitives

Landau (2000: 5-6) – infinitivals can be +/-T

(10) a. *The chair$_1$ managed/began $[_{[-T]}$ PRO_{1+} to gather early].
b. *Yesterday John managed/began $[_{[-T]}$ PRO to solve the problem tomorrow].

(11) a. The chair proposed/preferred $[_{[+T]}$ to gather early].
b. Yesterday John proposed/preferred $[_{[+T]}$to solve the problem tomorrow].

Verbs selecting [+T] infinitives: *factive, propositional, desiderative, interrogative*
Verbs selecting [-T] infinitives: *implicative, aspectual, modal.*

[+T] ➔ Partial/Exhaustive Control   [-T] ➔ Exhaustive Control only

Matrix predicate	Inflected INF (PRO-control)	Uninflected INF (Control as movement)
(i) Object Control (oblige, persuade) [+T]	$S O_i [PRO_{i(+)} T_\Phi ...]$	$S O_i [t_{i*(+)} T...]$
(ii) Non-local subject Control (promise) [+T]	$S_i O [PRO_{i(+)} T_\Phi ...]$	$S_i O [t_{i*(+)} T...]$
(iii) Local subject Control [+T] (prefer, think)	$S_i [PRO_{i+} T_\Phi ...]$	$S_i [t_{i*(+)} T...]$
(iv) Local subject Control [-T] (manage, begin)	*	$S_i [t_{i*(+)} T...]$
(v) Restructuring predicates (want)	*	$S_i [t_{i*(+)} T...]$

Generalisations

- Control as movement is available in all contexts.
- PRO-Control is available only in [+T] non-restructuring contexts.
- PRO-Control can be interpreted as EC or PC except with '(iii) local subject control' where it must be interpreted as PC (see **First problem** box on this)
- Controlling for null comitatives (cf. Sheehan 2012), PC always requires an inflected infinitive.
- Around half the speakers surveyed consistently accept PC with an inflected infinitive in EP (in two surveys of 15-30 speakers), the rest consistently rejected it.

Evidence that this is Partial Control, a kind of Obligatory Control

It is only permitted with [+T] infinitivals (see **Tensed/untensed Infinitives** box, Modesto 2010):
(3) *O Pedro   conseguiu   reunirem=se   mais   tarde.
the Pedro   managed.3SG meet.INF.3PL=SE.3   more   late

It is incompatible with restructuring predicates (with or without clitic climbing):
(4) *O Pedro   queria   reunirem=se   mais   tarde.
the Pedro   wanted   meet.INF.3PL=SE.3   more   late

The null subject must be locally bound by a semantically compatible DP:
(5) %O João/*eu preferia   reunirem=se   mais cedo.
the João/I   preferred.1SG/3SG   meet.INF.3PL=SE.3   more early
'João would prefer to meet earlier.'

This Controller must be local (in the next clause up):
(6) *O Pedro acha   que eu   preferia   reunirem=se   mais cedo.
The Pedro believes that I   preferred.3SG meet.INF.3PL=SE.3   more early

A pronominal co-referent with the Controller triggers a principle B violation:
(7) *O João$_i$ preferia   reunirem=se   sem   ele$_i$.
the João   preferred.3SG   meet.INF.3PL=SE.3   without him

Only 5/28 speakers accept VP-ellipsis with inflected infinitives. 4/5 get only a sloppy reading:
(8) %O João   preferia   reunirem=se   de manhã, e
the João   preferred.3SG   meet.INF.3PL=self.3,   of morning and
a Maria   também   preferia   (*mas sem ela).
the Maria   also   preferred.3SG   but without her

The subject gets a bound variable reading:
(9) Só   o director   preferia   reunirem=se   fora   no caso de um incêndio.
only   the headteacher preferred.3SG   meet.INF.3PL=SE.3 outside in.the case of a fire
MEANS 'Many other teachers would also prefer for the head master and his class to gather outside but they would each prefer for their own classes to gather inside in the warm.'
NOT 'The headmaster is the only person who wants him and his class to gather outside.'

Control as movement

A thematic head (θ-head) always bears [D:] forcing it to probe its visible complement domain for a potential DP argument.

$$V_{[D:i]EPP} [_{CP} C DP_{[-Case]i} T ...]$$

If the goal lacks Case then it raises to spec VP to satisfy the associated EPP feature:

$$[_{VP} DP_i V_{[D:i]} [_{CP} C t_i T ...]$$

At the semantic interface DP_i receives two θ-roles as it occupies two thematic positions.

Preminger (2011) – Agree is fallible so the probing can fail if there is no visible goal.

First problem: Local subject control

Why can't PRO Control get an Exhaustive reading in context (iii)?
(cf. examples (1), (13) from Sitaridou 2007: 195):

(12) Preferias   chegar(*es)   a tempo.
preferred.2SG   arrive.INF.(2SG)   on time
'You would prefer to arrive on time.'

(13) Prometemos à   Ana comprar(mos)=lhe   um livro
promise.1PL to.the Ana buy.INF.1PL=her   a book
'We promised Ana to buy her a book.'

This remains unclear, but the pattern is identical to that seen with Russian case transmission (cf. Landau 2008 for a potential analysis).

PRO Control

The θ-head probes its visible complement domain for a potential DP argument.

$$V_{[D:i]EPP} [_{CP} C DP_{[+Case]i} T_\Phi ...]$$

If the goal has Case it is defective and cannot raise to spec VP. A different DP is externally merged in spec VP to satisfy the EPP feature:

$$[_{VP} DP_j V_{[D:i]} [_{CP} C DP_{[+Case]i} T_\Phi ...]$$

At the semantic interface DP_j receives V's θ-role, but V is also thematically linked to DP_i via Agree ([D:i]), so DP_j must be non-distinct from DP_i.

Either j = i (Exhaustive Control)
Or j ⊂ i (Partial Control)

This is what is observed in other cases of defective intervention, where a head Agrees cyclically with two XPs. The features of the second XP must be a subset of the features of the first (Adger & Harbour 2007, Anagnostopoulou 2008 on the Person Case Constraint).

Final problem: Why is PRO null?

Why can only null subjects be controlled? Lack of Case is not the explanation as PRO has Case (cf. Landau 2006, 2008, Sigurðsson 2008, Bobaljik and Landau 2009) and inflected non-finite T assigns NOM in EP (Raposo 1987, Madeira 1994, Quicoli 1996)

Condition B/C: a pronoun/referring expression cannot be locally bound

If all thematic heads bear a [D:] feature, then all DPs in non-phasal complements will be defective thematic interveners. Conditions B/C rule this out – overt subjects are simply banned in such positions. In other cases, phases bypass the problem (cf. Sheehan 2012).