

The Case of PRO

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1. On the Case status of PRO: OC and NOC
2. On the formal features of PRO
3. Analysis: ACC and NOM PRO
4. Conclusions

1. On the Case status of PRO

PRO bears Case (as in Bošković 1997, Chomsky and Lasnik 1995, Landau 2004, Martin 2001, Wyngaerd 1994, but contra Bouchard 1984, Chomsky 1982, Koster 1984).

1.1 On the Case status of OBLIGATORY CONTROL PRO

Empirical evidence from Case-agreement in Icelandic control infinitives (Harley 1995, Sigurðsson 1991, 2007:5) supports this theoretical view.

- (1) a. Ólafi finnst gott [að PRO vera rikur]
Olaf.DAT.M.SG finds good to be rich.NOM.M.SG
'Olaf finds it nice to be rich.' (Sigurðsson 2007:5, example (4b))
- b. Bræðurnir æsktu þess [að PRO vera
brothers.the.NOM.M.PL wished (for) it [to be
báðum boðið]
both.DAT.PL invited]
'The brothers wished to be both invited.' (Sigurðsson 2007:9, example (18b))

- if matrix controller bears quirky Case, PRO is NOM (see agreement on embedded predicate)
- if embedded predicate assigns quirky case, PRO bears that Case (see agreement on quantifier)
I'll return later to a more detailed discussion

Beyond Icelandic:

A. Latin (Cecchetto & Oniga 2004:142, 143, Wyngaerd 1994):

- (2) a. Ego sum bonus.
I.NOM am good.NOM
- b. Subject control:
Ego volo [PRO esse bonus]
I.NOM want to-be good.NOM

B. Ancient Greek (henceforth AG: Andrews 1971, Sevdali 2005, Wyngaerd 1994):

- (3) Kyrou_i edeondo [PRO_i o:s prothumotatou genesthai.]
 Kyros-GEN pleaded-they [as most-willing-GEN to-be]
 'They pleaded to Kyros to be at most willing.'
 (AG, Xenophon, *Ellinika*: I.5.2. Adapted from Sevdali 2005: 136)

C. Russian (Bobaljik & Landau 2007:15):

- (4) Ona poprosila ego [PRO ne ezdit' tuda odnomu].
 she.NOM asked him.ACC not to-go there alone-DAT
 'She asked him not to go there alone.'
 etc.

So, with obligatory control (OC)

A. Constructions where PRO bears the Case of its controller (e.g. Latin, AG subject and object control)

- (5) Latin object control (Cecchetto & Oniga 2004:143):
 Ego iubeo te [PRO esse bonum]
 I.NOM order you.ACC to-be good.ACC

(6) AG

a. Subject control:

- Epei de di: ta politika voulei [PRO sofos genesthai].
 because then the politics-ACC wants-he [wise-NOM be.INF-PRES]
 'Because he wants to be wise with respect to political things.'
 (Plato, *Theages*: 128, c, 8. In Sevdali 2005:135)

b. Object control (GEN, DAT, ACC depending on the matrix object):

- Nun soi exestin [PRO andri genesthai].
 now you.DAT is-possible [man.DAT to-become]
 'It is now possible for you to become brave.'
 (Xenophon, *Kyrou Anavasis*: VII.1.21. In Sevdali 2000:136)

B. Constructions where PRO need not / cannot bear the Case of its controller

For example, the accepted generalization for Russian (Bobaljik & Landau 2007:15, following Comrie 1974) is that PRO is assigned Dative but that Case transmission of Nominative is possible:

- only with subject control, &
- only where the CP layer is null (though see Landau 2007 for refinements)

- (7) a. Kostja obeščal [PRO prijti odin].
 Kostja.NOM promised to-come alone.NOM
 'Kostja promised to come alone.'

- b. Ljuda priexala [čtoby PRO pokupat' maslo samoj].
 Ljuda.NOM came in-order to-buy butter herself.DAT
 'Ljuda came to buy butter herself.'

In Latin and Italian, Dative DPs control ACC PRO only:

- (8) Civi Romani licet [PRO esse Gaditanum]
 citizen Roman.DAT it-is-permitted be Gadian.ACC
 'A Roman citizen is allowed to be a citizen of Gades.'
 (Latin, Pepicello 1977:476 in Wyngaerd 1994:125)

- (9) (Io) gli_i ordinai [di PRO_i essere me nel film]
 I him.DAT ordered [COMP to-be me.ACC in-the film]
 'I asked him to play me in that movie.' (Italian, Cechetto&Oniga 2004:145)

Following (Sigurðsson 2007), in Icelandic, Genitive DPs cannot transmit Case, Datives do so marginally, Accusative and Nominative controllers can override Case of PRO (except when this Case is quirky). In the absence of Case transmission and embedded quirky Case, PRO is NOM.

- (10) a. Hún bað Ólaf [að PRO fara bara einn
 she.NOM asked Olaf.ACC [to go just alone.NOM
 í veisluna]
 to party.the
 b. Hún bað Ólaf [að PRO fara bara einan
 she.NOM asked Olaf.ACC [to go just alone.ACC
 í veisluna]
 to party.the
 'She asked Olaf to just go alone to the party.' (Sigurðsson 2007: 13)

This **NOM**inative is **structural** and NOT DEFAULT (contra Boeckx and Hornstein 2006):

- (11) Þessi saga var skrifuð til [að PRO vera lesin/*lesið].
 this story.NOM.F.SG was written for to be read.NOM.F.SG/*DFT
 (Sigurðsson 2007: 8)

Note that DEFAULT agreement ensues only with DEFAULT NOM - with dislocated & vocative DPs

- (12) Strákurinn, við hann var ekki dansað/*dansaður
 the.boy.NOM with him.ACC was not danced.DFLT/*NOM.SG.M
 'The boy, nobody danced with him.' (Sigurðsson 1991: 338)

So, several things emerge:

- PRO bears Case
- Case is not 'null Case'
- While in some constructions, Case matches that of the controller, in others it does not

Summing up Case of PRO:

- PRO shows Case agreement with non-verbal predicates, past participles, quantifiers, a.o.
- PRO can bear both structural and lexical/quirky Case
- Case on OC PRO may match that of the controller
- Case on OC PRO does not match that of the controller (clearly CP internal Case):
 - (DATIVE in Russian)
 - ACCUSATIVE in AG, Latin, Italian, English
 - NOMINATIVE in Icelandic (unless quirky)
- Case on NOC PRO (again, assigned CP-internally):
 - ACCUSATIVE in AG, (English pending evidence to the contrary)
 - NOMINATIVE in Icelandic

For instances of Case identity, we could argue along the lines of Hornstein (1999) or even Landau (1999, 2007) if we allow for some sort of Case transmission mechanism.

For PRO Case-marked independently of a controller (everything here except AG pending evidence to the contrary) we MUST assume Case is a property of the embedded CP domain.

So, the really interesting question then is:

→ How does PRO get structural Case CP-internally?

2. On the formal features of PRO

Can we or can we not eliminate PRO from UG?

→ clear that PRO bears Case and it is not of the null type

So, either (i) PRO = [D, uCase, iφ]
or (ii) PRO = [D, uCase, uφ]

(i) is sufficient to account for the obligatory *de se* readings in OC (Chierchia 1989, Hornstein 1999) under a movement account of control.

In the absence of a phasal domain

=> [uCase] will ensure an active DP and chain formation with a matrix theta-probe

In the presence of a phasal domain,

=> [uCase] will ensure dislocation to phase-edge

→ so Case checking guaranteed either way

However, what we cannot account for under this view is why sentences like (18) can only get a generic, arbitrary reading

(18) [*PRO to work on control*] is fascinating.
cannot be interpreted as having specific phi-features, say 3SGM, or 'John'

(ii) this view of PRO (i.e. [D, uCase, u ϕ]) lends itself best to a non-movement analysis of control (in the spirit of Borer 1989, Landau 1999 style).

Problem here is that nothing would distinguish PRO from a null expletive

This then would amount to saying: a. that all languages have null expletives, &
b. that null expletives can occupy thematic positions.

where both (a) and (b) are counter to standard generative assumptions.

At least two reasons to assume that the standard account should be maintained:

1. if all languages had null expletives then why would some languages also have overt expletives; and when would we use PRO as opposed to 'there' in English or 'það' in Icelandic?

2. if null expletives (i.e., [D, uCase, u ϕ]) could occupy theta-positions, then why can we only interpret (19a) referentially? Note that for the arbitrary reading a SE-construction is required (19b). Note further that Romanian is a null-expletive language.

- (19) a. Vine mîine.
 come.3SG tomorrow
 'S/he is coming tomorrow.' / '*People are coming tomorrow.'
- b. Se vine mîine.
 SE come.3SG tomorrow
 '*S/he is coming tomorrow.' / 'People are coming tomorrow.'

So, something else is required. Suppose that for a D to be licit in an argument position, a referential index is required.

Okay, I take this term loosely, as clearly in sentences like:

Every woman sat on the chair in front of her, under the anaphoric reading *her* is a bound variable without reference to any specific individual. But the idea is that some sort of indexing to yield semantic saliency is required and that this property has a morpho-syntactic correlate, say [uR]

→ PRO = [D, uCase, u ϕ , uR]

That [uR] (i.e., Referential indexing) and [u ϕ] are distinct properties is clear given sentences like, *Todd_i saw him_{j/*i} in the car.*, where *Todd* and *him* display identical ϕ -features.

A note on reflexives:

either (i) DP trace (as in Kayne 2002, Hornstein 2001, etc)
or (ii) same features as PRO

if (ii), then pronunciation of both copies is due to distinct phasal domains

[but note that under this view we would be forced to assume that clausal complements to control verbs obviate their phasal status]

3. Analysis

Recall that the focus is on

CP-internal ACC and NOM in non-finite (infinitive, gerund, etc) contexts

Following Chomsky (2006, to appear):

- T inherits both A-related features (EPP/uD and $u\phi$) and Tense from C
- T operates as a Probe derivatively, by virtue of its relation to C (i.e., the Phase head)

Chomsky's assumptions:

- $u\phi$ acts as a Case Probe (i.e., no uCase)
- phi-features (agreement) are compulsory for structural Case valuation

However, there is various cross-linguistic evidence that ϕ -features only play a role in NOM Case assignment (Alboiu 2006, 2007, Szabolcsi 2007).

Working assumptions:

- Spell-Out checks off all uninterpretable features (à la Branigan 2005)
- Phasal domain hosts A-features (à la Chomsky)
- Phasal domain guarantees Case-licensing, either:
 - as a result of A-chain formation, hence Case-checking and valuation
 - as a result of Spell-Out => default Case

More specifically, following Alboiu (2006, 2007):

- if a DP enters a syntactic relationship with a domain hosting A-features, it receives structural Case, as follows:
 - NOMINATIVE, if head contains a ϕ -specification (i.e., Probe is [$uD, u\phi$])
 - ACCUSATIVE, if it does not (i.e., Probe is [uD])
- if a DP is inert, default Case ensues

Implication here is that Case-licensing is dissociated from Case-valuation (as in Marantz 2000, Schütze 1997)

3.1 Acc PRO

CP-internal Case-marked PRO is constrained to an ACC value in (at least): Latin, AG, Italian, English. Why?

Following Alboiu (2006, 2007): because

- phi-features, [$u\phi$], are only available to finite C

Note that traditionally, the distinction between finiteness and non-finiteness is correlated to presence versus absence of *inflectional* morphology on T (Ledgeway 1998, a.o.)

=>

EPP ([uD]) and Tense ([iT]) are unaffected by finiteness but agreement ([$u\phi$]) is --

Empirical support? Subject clitics:

In Friulian these are required in finite clauses but are illicit in gerunds, even if Nominative subjects are okay:

- (20) (*E) Vint Marie / je ciacaraat cun ti, e ha
 SCL having Mary / she spoken with you, SCL have
 dicideut di cumprà el livri.
 decided of buy.INF the book
 ‘Having spoken with you, Mary decided to buy the book.’ (Paoli, p.c.)

- if SCL are agreement markers (Rizzi 1986), specifically $u\phi$ (Roberts 2006), (20) shows $u\phi$ is absent on *uninflected* T heads

[- linearization of object clitics in Romanian also shows absence of ϕ -features in non-finite CPs]

➤ So, gerund and infinitive C will only transfer a $[uD]$ feature to its proxy head, say T

▪ Ancient Greek (AG)

- (21) a. [PRO philanthropon einai] dei
 PRO.ACC friendly-ACC-3SG to-be must-3SG
 ‘One needs to love people.’ (Isokrates, II:15. AG, Sevdali 2005: 137)

b. infinitives with PRO

[_{CP} C	PRO	T	<PRO>	v	AP]
	[D, u Case: ACC, $u\phi$, uR]	[INF, v, u D]			[ACC]

▪ English

- (22) a. [_{CP} For her to give up now] was unthinkable.
 b. [_{CP} (*For) PRO_{arb} / * her to give up now] was unthinkable.

Empirical observation: while lexical subjects require *for*, overt C is unavailable with PRO

(23) a. for-to CP infinitives

[_{CP} C	DP _i	T	<DP _i >	v]
<i>for</i>	[u Case: ACC, $i\phi$]	[iT , INF, u D] <i>to</i>		V	

b. Prepositionless CP infinitives

[_{CP}	PRO	C/T	<PRO>	v]
	[D, u Case: ACC, $u\phi$, uR]	[iT , INF] <i>to</i>		V	

Now, in the absence of overt C, assume either:

- A. same analysis as for (23a), except with a null C (hmm)
 or
 B. that C is not distinct from T (shown in 23b)

=> merged C/T projection; see Culicover (1999), Giorgi & Pianesi (1997), Haider (1988)
 Crucial to merged heads: i. feature sharing & ii. absence of an intervening specifier
 => C has no uninterpretable features to transfer to T, so nothing in the T domain probes for the DP subject (potentially better given *her).
 → [uCase] is satisfied at Spell-Out and default ACC (à la Schütze 1997) ensues

However, PRO dislocates to the left edge to try and satisfy its other deficiencies, as follows:

Re: [uφ, uR] features on PRO

Note that these features cannot be satisfied clause-internally

=> **PRO will ALWAYS dislocate to Spec,CP** (i.e., the left edge of the phase), on a par with wh-phrases, to become accessible to Probes in higher domains. So, OC readings are then unproblematic and for NOC readings we can assume a generic operator approach as in Manzini & Roussou (2000). Alternatively, arbitrariness and logophoricity are default readings ensured at Spell-Out and satisfied at the semantic-pragmatic interface. The details are not relevant.

Empirical evidence for PRO raising? Note that both A. & B. accounts can capture (24):

- (24) John promised his psychologist [PRO to seem to himself/*herself [t to be competent] before leaving therapy]. (example offered by LI reviewer)

Consider next:

- (25) a. They_i decided [PRO_i to be the best].

[_{CP} PRO	C/T	<PRO>	v ...]
[D, uCase : ACC, uφ, uR]	[iT, INF] to		

- (26) a. **Who(m)** did they decide to be the best?

b. [_{CP} <who(m)>	C <who(m)>	T	<who(m)>	v ...]
[D, uCase : ACC, iφ, iwh, uOP]		[iT, INF, uD] to		

3.2 NOM PRO

Sigurðsson (1991, 2007), Bobaljik & Landau (2007) argue convincingly that NOM on Icelandic PRO is assigned as in finite clauses and is not default (contra Boeckx & Hornstein 2006).

Given that PRO is valued NOM (unless quirky or unless it copies Case of its controller), we must assume that non-finite C maintains its [uφ] specification (i.e., has all its A-features available).

Any empirical evidence for a unique (non)-finite C in Icelandic?

Well, at least shared morphology: complementizer *að* is used in BOTH finite & non-finite CPs

- (27) a. Ég harma að þegar hafi María lesið þessa bok.
 I regret that alreadyhas María read this book
 'I regret that Mary has already read this book.' (Roberts 1993)

- b. Jón segir að Mariu hefur Helgi aldri kysst.
 John says that Mary has Helgi never kissed
 'John says that Helgi has never kissed Mary.' (Thráinsson 1986)

Consequently,

- (28) a. [að PRO vera ríkur] er ágætt.
 to be rich.NOM is nice
- b. [_{CP} PRO C <PRO> T <PRO> v ...]
 [D, ~~u~~Case: NOM, uφ, uR] að [iT, INF, ~~u~~D, uφ] NOM

4. Conclusions

- PRO = [D, uCase, uφ, uR]
 - needs to be maintained as a UG primitive
- PRO bears both structural and quirky/lexical Case
- PRO receives structural Case CP-internally in NOC constructions, as well as some OC constructions
 - structural ACCUSATIVE iff Probe is [uD] (e.g., AG, English)
 - structural NOMINATIVE iff Probe is [uD, uφ] (e.g., Icelandic)
 - default otherwise (e.g., English ?)

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