Backward Control of Adjuncts in Ancient Greek (and Latin?)

Dag Trygve Truslew Haug

Cambridge Linguistic Society
March 1
Outline

1 Intro

2 Backward control?

3 Control and raising across frameworks

4 The case in Greek and Latin

5 Corpus study

6 Conclusions
The analysis (discovery?) of control and raising was a major achievement of early generative grammar.
Control and raising

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- It has shaped linguistic theories since Rosenbaum 1967
Control and raising

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- It has shaped linguistic theories since Rosenbaum 1967
- What is it?
Control and raising

Definition

An obligatory referential dependency between an argument position in a matrix clause and a subject position in a dependent clause
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Definition

An obligatory referential dependency between an argument position in a matrix clause and a subject position in a dependent clause

- We leave aside non-obligatory control here
- Control and raising differ (at least) in whether the higher argument position is thematic or not
- Earlier definitions typically require that the lower position is unpronounced
The typology

**forward**  
Tom; tries $[\Delta; \text{to win}]$  
common
<table>
<thead>
<tr>
<th>forward</th>
<th>Tom; tries $[\Delta_i \text{ to win}]$</th>
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<td>backward</td>
<td>$\Delta_i$ tries $[\text{Tom;} \text{ to win}]$</td>
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<th>Language(s)</th>
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<tr>
<td>Copy</td>
<td>Tom (i) tries ([\text{Tom} \text{ to win}])</td>
<td>Zapotec, Telugu, Assamese</td>
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### The typology

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- We will leave out copy phenomena as related to resumption (Asudeh 2012)
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Tsez

Tsez forward raising

\[
\text{kid; } [ \Delta; \text{ziya b-išr-a } ] \text{ y-oq-si} \\
\text{girl.II_ABS } [ \Delta.II.\text{ERG cow.III_ABS III-feed-INF } ] \text{ II-begin-PAST.EVID}
\]

‘The girl began to feed the cow.’
Tsez

Tsez forward raising

\[
\text{kid;} \quad [ \Delta_i ; \text{ziya} \ b-i\check{s}-r-a ] \ y-oq-si
\]

\[
\text{girl.II.ABS} \quad [ \Delta.\text{II.ERG girl.II.ABS} \text{ cow.II.ABS III-feed-INF } ] \text{ II-begin-PAST.EVID}
\]

‘The girl began to feed the cow.’

Tsez backward control

\[
\Delta_i \quad [ \text{kid-bā;} \ \text{ziya} \ b-i\check{s}-r-a ] \ y-oq-si
\]

\[
\Delta.\text{II.ABS} \quad [ \text{girl.II.ERG cow.II.ABS III-feed-INF } ] \text{ II-begin-PAST.EVID}
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‘The girl began to feed the cow.’

Polinsky and Potsdam (2002)
Malagasy

**Backward**

??naneren’ i Mery $\Delta_i$ [ hofafa- ko$_i$ ] ny trano
force.CT Mary $\Delta_{ACC}$ [ sweep.TT 1SG.NOM ] the house

‘Mary forced me to sweep the house.’
### Malagasy

#### Backward

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‘Mary forced me to sweep the house.’
Modern Greek

Variable subject position

(O Janis) emathe (o Janis) na pezi (o Janis) kithara
John-NOM learned-3SG John-NOM SUBJ play-3SG John-NOM guitar
(O Janis)
John-NOM

‘John learned to play the guitar’
Modern Greek

Variable subject position

(O Janis) emathe (o Janis) na pezi (o Janis) kithara
John-NOM learned-3SG John-NOM SUBJ play-3SG John-NOM guitar

(O Janis)
John-NOM

‘John learned to play the guitar’

Quirky case preserved

O Janis; borese [na min tu; ksefigun Δ; polla lathi]
John-NOM could-3SG SUBJ not CL-GEN escape-3PL many mistakes

‘John managed so that not many mistakes escaped his attention.’

Alexiadou et al. 2010
Assamese adjunct participles

Forward

\[\Delta_i/\ast^k\text{ lottery jik-i}] \text{ Ram-e notun h\ddot{a}r kinil-e} \\
\Delta.\text{NOM lottery win.PTCP Ram.}\text{NOM new house bought.3} \\

‘Having won the lottery, Ram bought a new house’
Assamese adjunct participles

**Forward**

\[ \Delta_i/_{\ast}k \text{ lottery } jik-i \]  
\( \Delta.\text{NOM} \) lottery win.\( \text{PTCP} \)  
\( \text{Ram.}\text{NOM} \) new house bought.3

‘Having won the lottery, Ram bought a new house’

**Backward**

\[ \text{Proxad-}\text{GEN} \text{ greed feel.}\text{PTCP} \Delta_i/\ast k \text{ cake-to khal-e} \]

‘Proxad got greedy and ate the cake’

- Backward control is licensed when the adjunct requires quirky case
Assamese adjunct participles

Forward

\[ \Delta_i^{/\ast k} \text{ lottery jik-i} \] Ram-e notun h\text{\textordmasculine}r kinil-e
\[ \Delta.\text{NOM} \text{ lottery win.}\text{PTCP} \text{ Ram.}\text{NOM} \text{ new house bought.3} \]

‘Having won the lottery, Ram bought a new house’

Backward

\[ \text{Proxad-}\text{\textordmasculine}r; \text{ lobh\text{-i} lag-i} \] \[ \Delta_i^{/\ast k} \text{ cake-to khal-e} \]
\[ \text{Proxad-GEN greed feel.}\text{PTCP} \Delta.\text{NOM} \text{ cake-CL ate.3} \]

‘Proxad got greedy and ate the cake’

- Backward control is licensed when the adjunct requires quirky case
- Copy control is the most frequent option
Features of backward control

- Not only two thematic roles, but also two cases are assigned
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- In some languages, backward control can be lexically selected
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- In other languages, the seems to be a choice between backward and forward.
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Theoretical desirables

- Handle multiple case assignment
- Be able to (but not have to) force specific directionality
Backward control is a significant challenge to the traditional view of control.
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‘Traditionalists’ have responded with

- the rarity of the phenomenon
Reactions

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- Greek (and Latin?) offers a case which
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- Greek (and Latin?) offers a case which:
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  - has no multiple case assignment
Reactions

- Backward control is a significant challenge to the traditional view of control.
- ‘Traditionalists’ have responded with:
  - the rarity of the phenomenon
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  - skepticism regarding the data
- Greek (and Latin?) offers a case which:
  - is fully general in these languages
  - has no multiple case assignment
  - is exceptionally clear!
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Derivational control and raising

Tom\textsubscript{i} hopes \text{IP} to \text{VP} t v' know the answer

Tom\textsubscript{i} seems \text{IP} to \text{VP} t v' know the answer
Derivational control and raising

- Tom hopes to know the answer.
- Tom seems to know the answer.
Derivational control and raising

Tom hopes to know the answer

Tom seems to know the answer
Non-derivational control and raising

```
[ PRED 'HOPE〈SUBJ, COMP〉' ]
     [ PRED 'Tom' ]
        [ INDEX 1 ]
     [ PRED 'KNOW〈SUBJ, OBJ〉' ]
        [ SUBJ [ PRED 'PRO' ]
                [ INDEX 1 ]
        [ OBJ [ PRED 'ANSWER' ]
                [ DEF + ] )
```

```
[ PRED 'SEEM SUBJ, 〈XCOMP〉' ]
     [ PRED 'Tom' ]
        [ PRED 'KNOW〈SUBJ, OBJ〉' ]
        [ SUBJ [ PRED 'ANSWER' ]
                [ DEF + ] )
```
Coindexation

XML Tree Representation:

```
<IP>
  <vP>
    <t>
      <v'>
        <hopes>
          <IP>
            <Tom>
              <vP>
                <to>
                  <v'>
                    <know the answer>
          </PRO>
        </I'>
      </t>
    </IP>
  </IP>
</vP>
```

```
PRED 'HOPE〈SUBJ, COMP〉'

SUBJ
  PRED 'TOM'
  INDEX 1

COMP
  PRED 'KNOW〈SUBJ, OBJ〉'
  SUBJ
    PRED 'PRO'
    INDEX 1
  OBJ
    PRED 'ANSWER'
    DEF +
```
Identity

```
[IP
  Tom
  VP
    seems
      t
      l'
      to
        vP
          t
          v'
        know the answer]

[PRED 'SEEM SUBJ, ⟨XCOMP⟩'
  SUBJ [PRED 'TOM'
    SUBJ [PRED 'KNOW ⟨SUBJ, OBJ⟩'
      OBJ [PRED 'ANSWER'
        DEF +]]]]
```
The traditional view: control = coindexation and raising = identity
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Raising with coindexation is ruled out as the upper argument would receive no thematic role.
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Control with identity is argued for by Bresnan 1982 and in the Movement Theory of Control

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Control with identity

\[
\text{PRED} \quad \langle \text{SEEM}, \text{SUBJ, XCOMP} \rangle
\]

\[
\text{SUBJ} \quad \langle \text{TO}, \text{PRED}, \text{OBJ} \rangle
\]

\[
\text{XCOMP} \quad \langle \text{KNOW}, \text{SUBJ, OBJ} \rangle
\]

\[
\text{DEF} \quad +
\]

Dag Haug

Backward Control

CLS, 01/03/2011
Control and raising unified

- Taking this further, one could argue that control is *always* identity

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This has the desirable consequence of unifying control and raising.

Two problems remain:
- Adjunct control (in identity through movement)
- Multiple case
Adjunct control as movement

Haddad (2011)
Sideways (aka ‘inter-arboreal’) movement

Nunes(2004), Haddad (2011)
Adjunction

Haddad (2011)
Multiple case

- Case is not part of the syntactic object (Sells 06)
Multiple case

- Case is not part of the syntactic object (Sells 06)
  - Looks ad hoc
Multiple case

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- Cyclic spell out + case overwriting
Multiple case

- Case is not part of the syntactic object (Sells 06)
  - Looks ad hoc
- Cyclic spell out + case overwriting
  - directionality selection by matrix is problematic
  - unusual non-monotonicity
Case in Icelandic

**Raising**  \( DP_j,\text{DAT} \ldots V \ldots [\Delta_i \ldots V \ldots FQ,\text{DAT}] \)

**Control**  \( DP_j,\text{NOM} \ldots V \ldots [\Delta_i \ldots V \ldots FQ,\text{DAT}] \)
Case in Icelandic

Raising \[ DP_j.DAT \ldots V \ldots [\Delta_i \ldots V \ldots FQ.DAT] \]

Control \[ DP_j.NOM \ldots V \ldots [\Delta_i \ldots V \ldots FQ.DAT] \]

- Andrews argues that control must be coindexation (in Icelandic)
- Landau argues from this that control and raising must be kept apart
Taking stock

- Identity-based theories of case have problems with multiple case
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- But they are well equipped to deal with backward phenomena through phonology/word order
Taking stock

- Identity-based theories of case have problems with multiple case
- But they are well equipped to deal with backward phenomena through phonology/word order
- It is now time to look at a ‘perfect’ example for control as identity, the Greek and Latin participial adjuncts
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Basic facts about the corpus

- The data comes from Herodotus (Greek, 5th c. BC), Caesar (Latin, 1st c. BC), the Gospels (Greek, 1st c. AD)
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- Classical symptoms of non-configurational languages:
  - no (surface) evidence for a VP
  - free constituent order
  - discontinuous phrases
  - null anaphora/prodrop
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- Dependent-marking
The corpus

- The texts
  - Herodotus 12421 words (of 185097)
  - Caesar 22414 words (of 52207)
  - Gospels 64519 words (complete)
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Verbal morphology

- Finite verbs inflect for tense, aspect, mood, person, number and voice.
Verbal morphology

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- All nominals inflect for case and number, adjectives for gender too.
Verbal morphology

- Finite verbs inflect for tense, aspect, mood, person, number and voice.
- All nominals inflect for case and number, adjectives for gender too.
- Participles have the verbal categories of aspect and voice and the nominal categories of case, gender and number.
Participles

- Participles are frequent! 3041 examples in the Gospels (4.7% of all words), so well suited to statistical analysis.
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  **Attributes**  the running boy

  **Heads**  the running (ones)

  **Complements**  stop running

  **Free adjuncts**  he arrived running

  **Absolutes**  his English deserting him
Participles

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- In all these functions, the participle always agrees with its subject rather than assigning a specific case
Case agreement

exelthonti de autôi epi tên gên
walk out-PP.DAT.SG but him-DAT.SG on DEF.ACC.SG earth-ACC.SG
upêntêsen anêr tis
meet-PST.PFV.3S man-NOM.SG some-NOM.SG

‘As he stepped ashore, a man met him’ (Luke 8:27)
Long distance agreement

epitrepson moi
permit.IMP.AOR.ACT me.DAT
apelthonti
go.PTCP.AOR.DAT.SG
thapsai ton patera mou
bury.INF.AOR my father.ACC.SG

‘Let me first go and bury my father’
(Luke 9:59)
**Long distance agreement**

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Conjunct and absolute participles

Absolute participle

hautê apographê egeneto prôtê
this.NOM.SG.F taxing.NOM.SG.F happened first.NOM.SG.F
hêgemoneuontos tês Surias Kurêniou.
govern.PTCP.PRS.GEN.SG.M Syria.FEM.SG Cyrenius.GEN.SG.M

‘This taxing was first made when Cyrenius was governing Syria.’ (Luke 2.2)
Conjunct and absolute participles

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- **Conjunct participles** have subjects that are matrix arguments (not necessarily subjects).
Conjunct and absolute participles

- Absolute participles have subjects that are not part of the matrix
- Conjunct participles have subjects that are matrix arguments (not necessarily subjects)
- I’ll argue that both types can have internal subjects, i.e. both project S/IP rather than just a VP
Some examples

Caes. Gal. 3.17.4

Quos impeditos integris who.ACC.PL.M hinder.PTCP.PRF.PASS.ACC.PL.M whole.ABL.PL.F.
viribus milites nostri vigor.ABL.PL.F miles.NOM.PL.M noster.NOM.PL.M consecuti magnus
consequor.PTCP.PRF.PASS.NOM.PL.M magnus.ACC.SG.M./N numerum eorum occiderunt
numerus.ACC.SG.M he.GEN.PL.M kill.PRF.3.PL

‘Our men pursued them while disordered with full vigor and killed a large number of them’
Some examples

Caes. Gal. 3.4.3

quod diuturnitate pugnae hostes
defessi proelio
grow tired go out

because long duration battle enemy
defend battle

exceed

‘because the enemies, when tired from the long duration of the battle, went out of action’
Some examples

Hdt. 1.1.2

apikomenous de tous
come.PTCP.PFV.PST.MID.ACC.PL.M but the.ACC.PL.M
Phoinikas es dê to Argos
Phoenician.ACC.PL.M to PTC the.ACC.SG.N Argos.ACC.SG.M
touto diatithesthai ton phorton
this.ACC.SG.N arrange.INF.PRES.MID the.ACC.SG.M cargo.ACC.SG.N

‘(They say that) the Phoenicians arrived in this Argos and arranged their cargo’
Some examples

Hdt. 1.78.2

apikomenoi de toisi come.PTCP.PFV.PST.MID.DAT.PL.M but the.DAT.PL.M./N
theopropoi kai mathousi ... ouk
messenger.DAT.PL.M and learn.PTCP.PFV.PST.DAT.PL.M not
eksegeneto Kroisôi apaggeilai
allow.PFV.PST.MID.3.SG Croesus.DAT.SG.M announce.INF.PFV.PST

‘Although the messengers arrived and learned ... they could not tell this to Croesus’
Some examples

**Matt. 9.4**

kai idôn  
and see.PTCP.PVF.PST.NOM.SG.M  
ho lêsous  
the.NOM.SG.M Jesus.NOM.SG.M  
tas enthumêseis autôn eipen  
the.ACC.PL.F thought.ACC.PL.F them.GEN.PL.M say.PVF.PST.3.SG  

‘And when Jesus saw their thoughts, he said’
Backward control in NT Greek?

egertheis de lôsêph apo tou upnou epoîesen
wake up.AP.NOM PTC Joseph.NOM from the dream.GEN did.AOR.3S

‘When he woke up from the dream, Joseph did . . . ’
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Diagram:

```
( S
  ( V egertheis )
  ( np Joseph )
  ( pp apo tou hupnou )
  ( epoiêsen )
```

When he woke up from the dream, Joseph did.
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Two possibilities and a study

1. Greek matrix verbs and adjunct participles form flat S domains
2. Greek adjunct participles allow backward control
Two possibilities and a study

1. Greek matrix verbs and adjunct participles form flat S domains
2. Greek adjunct participles allow backward control

- To decide between these hypotheses we performed a corpus study
  - On the flat S analysis, we don’t predict constraints on discontinuities
Two possibilities and a study

1. Greek matrix verbs and adjunct participles form flat S domains
2. Greek adjunct participles allow backward control

To decide between these hypotheses we performed a corpus study

- On the flat S analysis, we don’t predict constraints on discontinuities
- On the subject internal analysis, we predict there are no discontinuities (except as may arise from other processes such as long distance dependencies)
How free is the word order?

- We assume that there are two different types of displacement
  - Long distance dependencies (aka wh-movement, A’ movement)
  - Scrambling (aka hyperbaton)
How free is the word order?

- We assume that there are two different types of displacement
  - Long distance dependencies (aka wh-movement, A’ movement)
  - Scrambling (aka hyperbaton)
- For our purposes, LDD is any discontinuity where the displaced element is on the left periphery of a finite clause
LDDs in Greek and Latin

Relative clauses

Quaerit ex solo ea quae in conventu dixerat.

ask.PRES.3.SG from alone.ABL.SG.M he.ACC.PL.N who.ACC.PL.N in meeting.ABL.SG.M speak.PPF.3.SG

‘He inquires from him when alone about those things which he had said in the meeting’ (Caes. Gal. 1.18.2)
LDDs in Greek and Latin

Topicalization across clauses

heauton ou dunatai sousai
himself. ACC.SG.M not be able. PRES.MID.3.SG save. INF.PFV.PST

‘Himself he cannot save’ (Matt. 27.42)
LDDs in Greek and Latin

Non-Phrasal LDD

tina thelete apo tôn duo
who.ACC.SG.M desire.PRES.2.PL from the.GEN.PL.M two
apolusô humin
set free.SBJV.PFV.PST.1.SG you.DAT.PL.

‘Which of the two do you desire that I set free for you?’ (Matt. 27.21)
LDDs in Greek and Latin

Subextraction from subject

Haeduos quorum antiquitus erat in Aedui.ACC.PL.M who.GEN.PL.M from old times be.IPfv.PST.3.SG in fide civitas faith.ABL.SG.F city.NOM.SG.F

‘the Aedui, whose state is from old times under Rome’s protection’ (Caes. Gal. 6.4.2)
LDDs in Greek and Latin

- Greek and Latin LDDs are not well studied
LDDs in Greek and Latin

- Greek and Latin LDDs are not well studied
- But they can obviously cross clause-boundaries, both finite and non-finite
Greek and Latin LDDs are not well studied.

But they can obviously cross clause-boundaries, both finite and non-finite.

What about hyperbaton/scrambling?
The corpus study

- The corpus is annotated with dependencies, not phrases
The corpus is annotated with dependencies, not phrases

The annotation is conservative, so shared arguments are consistently made dependents of the matrix, not the adjunct
The corpus study

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- We convert the dependency structures into phrasal structure trees
The corpus study

- The corpus is annotated with dependencies, not phrases
- The annotation is conservative, so shared arguments are consistently made dependents of the matrix, not the adjunct
- We convert the dependency structures into phrasal structure trees
- We then count the number of discontinuities and divide them into two groups, the ones where the discontinuous material appears in the specifier of some other phrase (LDD) and the others (scrambling).
Conversion

```
Root
  PRED
  epoiēsen

SUBJ
Iōsēph

XADJ
egertheis

OBL
apo

OBL
hupnou

AUX
tou

⇒

IP

Vptcp

NP

VptcpP

I'

egertheis

N

Iōsēph

P'

P

apo

D

tou

N

hupnou
```
Continuity data

- We count the projectivity of all phrasal nodes that are branching (not counting Ds) and have a head:
  - 1 continuous IP
  - 1 continuous PP
  - 1 scrambled VptcpP
Projectivity of non-clausal categories

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- Relatively high degree of non-projectivity
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- Relatively high degree of non-projectivity
- P is the exception, although even here discontinuities are allowed in certain circumstances
### Projectivity of clausal categories

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- Finite clauses do not allow scrambling
Projectivity of clausal categories

Finite clauses do not allow scrambling

Exceptions involve coordination: *ob eam rem aut ... V₁ aut ... V₂*
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- Exceptions involve coordination: *ob eam rem aut ... V₁ aut ... V₂*
- Infinitive clauses do allow interruptions (mostly by their matrix verb)
- Complement participles behave like infinitives
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- Finite clauses do not allow scrambling
- Exceptions involve coordination: ob eam rem aut ... V₁ aut ... V₂
- Infinitive clauses do allow interruptions (mostly by their matrix verb)
- Complement participles behave like infinitives
- Absolutes are like finite clauses
## Projectivity of clausal categories

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- Exceptions involve coordination: *ob eam rem aut* ... *V₁ aut* ... *V₂*
- Infinitive clauses do allow interruptions (mostly by their matrix verb)
- Complement participles behave like infinitives
- Absolutes are like finite clauses
- Conjunct participles seem to work like complements
Conversion 2

Root

epoiēsen

SUBJ
Iôsêph

XADJ
egeretheis

OBL
apo

hupnou

AUX
tou

⇒

IP

VptcpP

Vptcp

egereis

NP

N

Iôsêph

PP

P'

apo

D

tou

N

hupnou
Continuity data 2

- We count the projectivity of all phrasal nodes that are branching (not counting Ds) and have a head
  - 1 continuous IP
  - 1 continuous PP
  - 1 continuous VptcpP
A second look at conjunct participles

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Dag Haug

Backward Control

CLS, 01/03/2011
Heavy NP dislocation

Hdt. 1.90.2

ô despota e asas me
o lord.VOC.SG.M permit.PTCP.PFV.PST.NOM.SG.M I.ACC.SG.M
khariei malista ton theon
please.FUT.MID.2.SG most.SUPL the.ACC.SG.M god.ACC.SG.M
tôn Hellênôn ... epeiresthai
the.GEN.PL.M Greeks.GEN.PL.M ask.INF.PFV.PST.MID

‘Lord, you will please the most by allowing me to ask the god of the Greeks...’
Heavy NP dislocation

Hdt. 1.57.1

ei de khreon esti
if but necessary.NOM.SG.N be.PRES.3.SG
tekmairomenon legein toisi nun
judge.PTCP.PRES.MID.ACC.SG.M say.INF.PRES who.DAT.PL.M./N now
eti eousi Pelasgôn ... hoi
still be.PTCP.PRES.DAT.PL.M Pelasgi.GEN.PL.M ... who.NOM.PL.M

‘If it is necessary to pronounce on this matter judging by the still remaining Pelasigans ... who ...’
Heavy NP dislocation

BG 4.12.2

reliquos in fugam coniecerunt atque ita
reliquus.ACC.PL.M in fuga.ACC.SG.F conicio.PRF.3.PL atque ita
perterritos egerunt ut non prius
perterreo.PTCP.PRF.PASS.ACC.PL.M ago.PRF.3.PL ut non prius.COMP
fuga desisterent quam . . .
fuga.ABL.SG.F desisto.SBJV.PFV.PST.3.PL than

‘They put the rest to flight, and drove them forward so frightened that did not stop before...’
Summing up on conjunct participles

- With one well-defined exception, it seems that only the participle’s subject may intervene and create a discontinuity
Summing up on conjunct participles

- With one well-defined exception, it seems that only the participle’s subject may intervene and create a discontinuity.
- On the free word order hypothesis, that is left unexplained.
  - Of the 248/1315/538 participle clauses, why are none interrupted by functionally external elements?
  - In the 11/49/17 discontinuous participle clauses, why is the intervenor always the participle’s subject?
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  - In the 11/49/17 discontinuous participle clauses, why is the intervenor always the participle’s subject?
- Unfortunately, it is difficult to test these questions statistically without making assumptions about ‘normal’ word order.
- Still, we seem to have robust negative evidence here (at least for GNT!)
Corroboration from absolutes

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- In cases where we know the participle takes an internal subject, we have the same continuity effect – in Greek
Corroborations from absolutes

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In cases where we know the participle takes an internal subject, we have the same continuity effect — in Greek

Latin admits a number of exceptions
Absolute exceptions 1

BG 1.44.10

Debere se suspicari
debeo.INF.PRES se.ACC.SG.M suspicor.INF.PRES.PASS

[simulata Caesarem amicitia]
simulo.PTCP.PRF.PASS.ABL.SG.F Caesar.ACC.SG.M amicitia.ABL.SG.F

‘that he must be suspicious that Caesar, though feigning friendship’
Absolute exceptions 2

BG 6.9.8

[Cognita Caesar causa]
cognosco.PTCP.PRF.PASS.ABL.SG.F Caesar.NOM.SG.M causa.ABL.SG.F
reperit ab Suebis auxilia
reperio.PRES.3.SG ab Suebi.ABL.PL.M auxilium.ACC.PL.N
missa esse
mitto.PTCP.PRF.PASS.ACC.PL.N sum.INF.PRES

‘When Caesar discovered this . . . ’
Absolute exceptions 3

BG 2.11.2

[Hac re statim Caesar per
hic.ABL.SG.F res.ABL.SG.F statim Caesar.NOM.SG.M per
speculator.ACC.PL.M cognosco.PTCP.PRF.PASS.ABL.SG.F

‘When Caesar discovered this through his scouts ...’
Absolute exceptions 4

**BG 1.49.2**

multis **et** inlatis **et** multus.ABL.PL.M./F./N **and** infero.PTCP.PRF.PASS.ABL.PL.N **and** acceptis **vulneribus**

accipio.PTCP.PRF.PASS.ABL.PL.N vulnus.ABL.PL.N

‘with many wounds given and taken’

- Could be just V-coordination + a discontinuous (though fully S-internal) subject
Absolute exceptions 4

BG 1.49.2

multis \text{ et inlatis} \\
\text{multus.ABL.PL.M./F./N and infero.PTCP.PRF.PASS.ABL.PL.N and acceptis} \\
\text{vulneribus} \\
\text{accipio.PTCP.PRF.PASS.ABL.PL.N vulnus.ABL.PL.N}

‘with many wounds given and taken’

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- But Latin absolutes could also be different from Greek ones in being NPs rather than Ss
Absolute exceptions 4

BG 1.49.2

multis et inlatis et multus.ABL.PL.M./F./N and infero.PTCP.PRF PASS.ABL.PL.N and acceptis vulneribus accipio.PTCP.PRF PASS.ABL.PL.N vulnus.ABL.PL.N

‘with many wounds given and taken’

- Could be just V-coordination + a discontinuous (though fully S-internal) subject
- But Latin absolutes could also be different from Greek ones in being NPs rather than Ss
- Would be the ablative of the *ab urbe condita* construction
Conclusions

- In Greek a unified analysis is possible where participles, both absolute and conjunct, can always host a subject
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- Latin absolutes may have a different syntax altogether.
- All in all, we conclude that backward control is a reality in Greek and possibility in Latin.
- Relatively common in corpora.
- The next question is *when* will a conjunct participle host a subject?
Types of participles in Greek

Elaboration

sôson  seauton  katabas  apo  tou staurou
save.PFV.IMP.2SG  yourself.ACC  going-down.AP.NOM  from the cross.GEN

Save yourself (by) going down from the cross. (Mk. 15:30)
Types of participles in Greek

Frame

egertheis de lôsêph apo tou upnou epoiēsen
wake up. AP. NOM PTC Joseph. NOM from the dream. GEN did. AOR. 3S

‘When he woke up from the dream, Joseph did . . .’
Types of participles in Greek

Independent rheme

egertheis paralabe to paidion
waking-up.AP take.PFV.IMP.2SG the.ACC child.ACC

Wake up and take the child with you (Mt. 2:13)
And their c-structural realization

- Participles
  - in Spec,IP are frames (temporal anchors)
And their c-structural realization

- **Participles**
  - in Spec,IP are frames (temporal anchors)
  - left-adjoined to the matrix S are independent rhemes (typically narrative)
And their c-structural realization

- Participles
  - in Spec, IP are frames (temporal anchors)
  - left-adjointed to the matrix S are independent rhemes (typically narrative)
  - inside the matrix S (VP-adverbials) are elaborations (typically co-eventive)
And their c-structural realization

- **Particples**
  - in Spec, IP are frames (temporal anchors)
  - left-adjoined to the matrix S are independent rhemes (typically narrative)
  - inside the matrix S (VP-adverbials) are elaborations (typically co-eventive)
  - right-adjoined to the matrix S are independent rhemes (typically causal)
Ambiguities

apokritheis de eipen autēi ho kurios
answer.AP.NOM PTC said.AOR.3S her.DAT the lord.NOM

⇒ ‘When the Lord answered, he said to her:’
Ambiguities

`apokritheis` de eipen autêi `ho kurios`

`answer.AP.NOM` `PTC` `said.AOR.3S` `her.DAT` `the lord.NOM`

⇒ ‘The Lord answered and said to her’
Ambiguities

apokritheis de eipen autêi ho kurios
answer.AP.NOM PTC said.AOR.3S her.DAT the lord.NOM

⇒ ‘The Lord said in answer’
The distribution of control

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We have assigned participles to the highest possible position, so could be lower
The distribution of control

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- Forward control is rare in specifier and left-adjoined position
- Could in fact have a lower position
- The grammar must be able to restrict control directionality
Outline

1. Intro
2. Backward control?
3. Control and raising across frameworks
4. The case in Greek and Latin
5. Corpus study
6. Conclusions
PRO theory of control

PRO: epoiĕsen

S

VP

Vptcp egertheis

NP Iôsêph;

P' apo tou hupnou

PP

P N

PRO; epoiĕsen

S

NP
danëins Fko (132) vêkprob das
Absterben A. k 4,10; év ıvav-
geplecy; N.P. oder M 9,38.
daum FS oqo, Gvako, his
wepj eusa J.Ürner (2115:
E 5,2; N. K. 2,17 k 2,15,60; k
2,14; 0, 1,116, V. Babuin)
PRO theory of control

- No reasonable constellation between PRO and governor
PRO theory of control

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- How to account for case transmission?
Movement theory of control

- Requires sideward movement
Movement theory of control

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- However, since sideward movement takes place prior to adjunction, it is hard to constrain the positioning
Movement theory of control

- Requires sideward movement
- However, since sideward movement takes place prior to adjunction, it is hard to constrain the positioning
- Just a particular case of sideward movement being hard to constrain?
Non-derivational identity

```
[ | PRED   | 'DO ⟨SUBJ, OBJ⟩' |
 | SUBJ   | [ | PRED    | 'JOSEPH' |
 | CASE   | NOM     |
 | OBJ    | [ . . ] |
 | XADJ   | [ | PRED    | 'WAKE FROM ⟨SUBJ, OBL⟩' |
 | SUBJ   | [ | PRED    | 'DREAM' |
 | OBL    | [ | DEF     | +    ] |
```

- Structure sharing through equality is ignorant about overt realization
Non-derivational identity

- Structure sharing through equality is ignorant about overt realization
- Easily combined with constraints on overt realization as LFG’s description logic has a way of referring to all structures containing the shared element
Greek and Latin adjunct control

- Bears out the predictions of identity-based theories of control (though there are issues with a movement implementation)
Greek and Latin adjunct control

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- Yet we have seen that cross-linguistically, there are good examples of backward control which does not fit identity because of multiple case assignment
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- Parametric variation?

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  Spell-out domains  Cannot deal with positioning constraints?

- It seems we are led to conclude that control has a double nature, sometimes involving identity and sometimes coindexation
Control theory

- What about theoretical parsimoniousness?
Control theory

- What about theoretical parsimoniousness?
- But why should identity/coindexation correlate with thematicity?

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- Conflicts with one, independently motivated part of the $\Theta$-criterion
- Control with identity gives an argument two thematic roles
- Barred by a much less motivated part of the $\Theta$-criterion
- So control as both identity and coindexation does not introduce new primitives
Slides and corpus (including raw data) available from

http://www.hf.uio.no/ifikk/proiel/