Overt and zero marking of spatial relations in Cappadocian Greek: synchrony, diachrony, typology

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Our talk

1 Marking of Source, Place and Goal in the Modern Greek dialects of inner Asia Minor
   – Synchrony
   – Diachrony

2 Case-in-point: the loss of se (Place = Goal)

3 Typological repercussions
Inner Asia Minor Greek
Inner Asia Minor Greek

Map of Inner Asia Minor Greek locations, including:
- Arabisón
- Nevşehir
- Zaléla
- Sínasós
- Anakú
- Sílata
- Phloítá
- Díla
- Potámia
- Malakopí
- Trokhó
- Axó
- Mistí
- Tsharaklý
- Jeklék
- Semenderé
- Ulaghátsh
- Delmesó
- Ferték
- Ghúrzoño
- Araván
- Niğde
- Pharása
Source, Place and Goal

• Three basic spatial relations (Crystal 2008):
  – **Source**: the entity or place from which something moves
  – **Place**: the entity or place at which something is located
  – **Goal**: the entity or place towards which something moves
Source, Place and Goal

- Polyseme patterns:
  1. Source $\neq$ Place $\neq$ Goal
  2. Source $=$ Place $=$ Goal
  3. Source $\neq$ Place $=$ Goal
  4. Source $=$ Place $\neq$ Goal
  5. Source $=$ Goal $\neq$ Place

- Both overt and zero markers.
Source, Place and Goal in AMGr

I. Conservative varieties

II. Intermediate varieties

III. Innovative variety
Source, Place and Goal in AMGr

I. Conservative varieties
   – All Cappadocian varieties (except Phloïtá and Ulaghátsh) and Pharasiot
   – Overt marking for all three relations:
     • Source is marked by *apo/as*
     • Place and Goal are marked by *se*
   – Both markers occur in
     • PrepPs \[ \text{[PREP + NP}_{\text{ACC}}]_{\text{PrepP}} \]
     • CircumPs \[ \text{[PREP + NP}_{\text{ACC}} + \text{POSTP}]_{\text{CircumP}} \]
   – POSTPs in CircumPs encode Region
Source, Place and Goal in AMGr

I. Conservative varieties

<table>
<thead>
<tr>
<th>Preposition</th>
<th>Meanings</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>se</td>
<td>ALLATIVE, LOCATIVE</td>
<td>‘to, at’</td>
</tr>
<tr>
<td>apo</td>
<td>ABLATIVE</td>
<td>‘from’</td>
</tr>
<tr>
<td>ja</td>
<td>PURPOSESIVE</td>
<td>‘for’</td>
</tr>
<tr>
<td>me(ta)</td>
<td>COMITATIVE, INSTRUMENTIVE</td>
<td>‘with’</td>
</tr>
<tr>
<td>xoris</td>
<td>EXCLUSIVE</td>
<td>‘without’</td>
</tr>
<tr>
<td>os</td>
<td>TERMINATIVE</td>
<td>‘up to, until’</td>
</tr>
</tbody>
</table>
## Source, Place and Goal in AMGr

### I. Conservative varieties

<table>
<thead>
<tr>
<th>Postposition</th>
<th>Meanings</th>
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</tr>
</thead>
<tbody>
<tr>
<td>(a/e)pano</td>
<td>SUPERIOR</td>
<td>‘on top of, above’</td>
</tr>
<tr>
<td>(apo)kato</td>
<td>INFERIOR</td>
<td>‘under’</td>
</tr>
<tr>
<td>(e/o)mbros</td>
<td>ANTERIOR</td>
<td>‘in front of’</td>
</tr>
<tr>
<td>(o)piso</td>
<td>POSTERIOR</td>
<td>‘behind’</td>
</tr>
<tr>
<td>apeso, mesa</td>
<td>INTERIOR</td>
<td>‘inside’</td>
</tr>
<tr>
<td>okso</td>
<td>EXTERIOR</td>
<td>‘outside’</td>
</tr>
<tr>
<td>konda</td>
<td>PROXIMATE</td>
<td>‘near’</td>
</tr>
<tr>
<td>anamesa</td>
<td>MEDIAL</td>
<td>‘between’</td>
</tr>
</tbody>
</table>
I. Conservative varieties

(1) Source

\textit{katévasen to mílo [áso raf]}

took down the apple from the shelf

‘[the woman] took down the apple from the shelf’

(Delmesó; Dawkins 1916: 306)
Source, Place and Goal in AMGr

I. Conservative varieties

(2) Place

\[ \text{[so spitf] \ indent \ dd\dd\eka \ pe\dj\d}\]

at the house are twelve young men

‘in the house there are twelve young men’

(Delmesó; Dawkins 1916: 306)
Source, Place and Goal in AMGr

I. Conservative varieties

(3) Goal

\[ \text{píjen} \quad [sa \quad \text{vuná}] \]

he went to the mountains

‘he went to the mountains’

(Delmesó; Dawkins 1916: 304)
II. Intermediate varieties
   – Phloïtá Cappadocian and Sílliot
   – Overt marking for Source
   – Variation between overt marking (se) and zero for Place and Goal.
     • \([se + NP_{ACC}]_{PrepP} \sim [NP_{ACC}]_{NP}\)
     • \([se + NP_{ACC} + POSTP]_{CircumP} \sim [NP_{ACC} + POSTP]_{PostP}\)
II. Intermediate varieties

(4) Source

\[ ta \quad ff\acute{a}xa \quad \acute{\textit{irtane}} \quad [\acute{\textit{aso}} \quad sk\acute{o}lo] \]

the children came from the school

‘the children returned from school’

(Phloïtá; Dawkins 1916: 410)
II. Intermediate varieties

(5) Place

a. overt

cimíθane  [so skóλo]
they slept  at the  school
‘they slept at the school’
(Phloïtá; Dawkins 1916: 306)
II. Intermediate varieties

(5) Place

b. zero

[ecí to xorjo] íxan tría θírja
that the village had three gates
‘in that village there were three gates’
(Phloïtá; Dawkins 1916: 434)
II. Intermediate varieties

(6) Goal

a. overt

\[ p\text{"iane} \quad [s\text{"o} \quad s\text{"k\text{"o}l\text{"o}}] \]

they went to the school

‘they went to the school’

(Phloïtá; Dawkins 1916: 410)
II. Intermediate varieties

(6) Goal
  b. zero
  
  \textit{ben} \ [\textit{devreyú} \ \textit{to} \ \textit{spit}]
  enters \ dervish.\textit{GEN} \ the \ house

  ‘he goes into the dervish’s house’

(Phloïtá; Dawkins 1916: 416)
II. Intermediate varieties

  • In Phloïtá Cappadocian, zero is preferred in utterances in which the head noun of the Ground-encoding NP is modified by an adnominal genitive
  • In Sílliot, zero is preferred in utterances in which Region is encoded by a POSTP
  • se is omitted in cases where the Ground-encoding expressions display high degrees of informativity and redundancy.
II. Intermediate varieties


‘in(to) the house’

<table>
<thead>
<tr>
<th>AMGr</th>
<th>s(e)</th>
<th>to spit</th>
<th>mísa</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREP</td>
<td>NP</td>
<td>POSTP</td>
<td></td>
</tr>
</tbody>
</table>

Turkish

<table>
<thead>
<tr>
<th>évín</th>
<th>iç-in-{e/de}</th>
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AMGr

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III. Innovative variety

– Ulaghátsh Cappadocian

– Overt marking only for Source (*apo*)

– Zero marking for Place and Goal

  • NPs  \([NP_{ACC}]_{NP}\)
  • PostPs \([NP_{ACC} + POSTP]_{PostP}\)
III. Innovative variety

(7) Source

to peįį ĭrte [ap d’ iskóλon]
the boy came from the school
‘the boy returned from school’
(Ulaghátsh; Dawkins 1916: 356)
III. Innovative variety

(8) Place

\[
\text{tránse } \quad \text{ci} \quad \text{[to } \quad \text{meidán}] \quad \text{en} \quad \text{ávja} \\
\text{saw} \quad \text{that} \quad \text{the} \quad \text{yard} \quad \text{is} \quad \text{game} \\
\text{‘she saw that in the yard there is some game’} \\
\text{(Ulaghátsh; Dawkins 1916: 348)}
\]
III. Innovative variety

(9) Goal

\textit{píje} [éna xorjó]

went a village

‘he went to a village’

(Ulaghátsh; Dawkins 1916: 352)
III. Innovative variety

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Impact of the loss of se

• The expression of Goal becomes morphologically less complex (zero marking) than the expression of Source (overt marking, *apo/as*)
  – Goal is considered to be the unmarked member of the contrasting pair Source–Goal (Dixon 1980; Ikegami 1987; Fillmore 1997; Stolz 1992; Stolz et al. 2014)

• The case of Ulaghátsh Cappadocian shows:
  – Directionality of change can have a clear vector, which is determined by the markedness hierarchy Goal < Source.
Impact of the loss of se

• The diachrony of markedness relations in inner Asia Minor Greek (notation follows Stolz et al. 2014):

I. Conservative  
II. Intermediate  
III. Innovative
Impact of the loss of se

• The reorganisation of the system has a local effect:
  
  – the loss of se and its replacement by zero

• The original global picture remains intact:
  
  – Source ≠ Place = Goal
Impact of the loss of *se*

<table>
<thead>
<tr>
<th></th>
<th>Object</th>
<th>Dative</th>
<th>Allative</th>
<th>Locative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservative</td>
<td>ACC</td>
<td>ACC</td>
<td><em>se + ACC</em></td>
<td><em>se + ACC</em></td>
</tr>
<tr>
<td>Intermediate</td>
<td>ACC</td>
<td>ACC</td>
<td><em>se + ACC</em></td>
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<td>Innovative</td>
<td>ACC</td>
<td>ACC</td>
<td>ACC</td>
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</table>
Impact of the loss of *se*

- Blansitt (1988): object = dative = allative = locative
  is a typological rarum
  - Guaraní *pe*
    (Guash 1956, Gregores & Suárez 1967, Shain & Tonhauser 2011)
  - Tahitian *’i/’ia*
## Impact of the loss of se

- **Ulaghátsh Cappadocian**: ACC=NOM

<table>
<thead>
<tr>
<th></th>
<th>IC1</th>
<th>IC2</th>
<th>IC3</th>
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<tbody>
<tr>
<td><strong>SG</strong></td>
<td>NOM/ACC</td>
<td>çeríf-os</td>
<td>papá-s</td>
</tr>
<tr>
<td>GEN</td>
<td>çerif-ǰú</td>
<td>papa-ǰú</td>
<td>néka-ǰu</td>
</tr>
<tr>
<td><strong>PL</strong></td>
<td>NOM/ACC</td>
<td>çeríf-ja</td>
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<td>papa-ǰú</td>
<td>néc-es-ǰu</td>
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Impact of the loss of *se*

- Ulaghátsh Cappadocian: ACC=NOM

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<tr>
<th></th>
<th>IC4</th>
<th>IC5</th>
<th>IC6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SG</strong></td>
<td><strong>NOM/ACC</strong></td>
<td>'water'</td>
<td>'shirt'</td>
</tr>
<tr>
<td>NOM</td>
<td>leró</td>
<td>met</td>
<td>púma</td>
</tr>
<tr>
<td>GEN</td>
<td>lero-į́ú</td>
<td>met-į́ú</td>
<td>púma-į́ju</td>
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<td>'shirt'</td>
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<tr>
<td>NOM</td>
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<td>mét-į́a</td>
<td>púmat-į́a</td>
</tr>
<tr>
<td>GEN</td>
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<td>met-į́ú</td>
<td>púma-į́ju</td>
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# Impact of the loss of se

<table>
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<th>Subject</th>
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<th>Allative</th>
<th>Locative</th>
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<td>ACC</td>
<td>$se + ACC$</td>
<td>$se + ACC$</td>
</tr>
<tr>
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<td>NOM</td>
<td>ACC</td>
<td>ACC</td>
<td>$se + ACC$</td>
<td>ACC</td>
</tr>
<tr>
<td><strong>Innovative</strong></td>
<td>NOM/ACC</td>
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## Conclusions

<table>
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<tr>
<th>Conservative varieties</th>
<th>Source</th>
<th>Source = Goal</th>
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</tr>
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<tbody>
<tr>
<td>Source</td>
<td>$\Leftrightarrow$</td>
<td>$apo$</td>
<td></td>
</tr>
<tr>
<td>Place = Goal</td>
<td>$\Rightarrow$</td>
<td>$se$</td>
<td></td>
</tr>
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<td>Place = Goal</td>
<td>$\Rightarrow$</td>
<td>$se \sim \emptyset$</td>
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</table>
Conclusions

• The expression of Source remains equally complex diachronically.

• The expression of Place and Goal becomes less complex:
  – $se > se \sim \emptyset > \emptyset$

• Despite the loss of $se$, the inherited polysemic pattern remains intact ($Source \neq Place = Goal$).
Conclusions

• The loss of *se* had important typological ramifications:
  
  – Intermediate varieties:
    object = dative = allative = locative
  
  – Innovative variety:
    subject = object = dative = allative = locative
Thank you for your attention!
References (selection)


Method: how to find zeroes

• When the semantic role of the Ground is not assigned by the verb ⇒ ∅

(10) Ulaghátsh Cappadocian

a. to  pejí  írten  ap  d’  iskőilon
the  boy  came  from  the  school
‘the boy returned from school’

b. írte  ∅  do  spít=it
came  the  house=his
‘he came to his house’
The variable use of *se* and Ø

- Sources of data: three corpora

<table>
<thead>
<tr>
<th>Corpus</th>
<th>Size (words)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Phloïtá</td>
<td>5,300</td>
</tr>
<tr>
<td>(8 stories, Dawkins 1916: 410–441)</td>
<td></td>
</tr>
<tr>
<td>2. Sílli (D)</td>
<td>2,850</td>
</tr>
<tr>
<td>(7 stories, Dawkins 1916: 284–304)</td>
<td></td>
</tr>
<tr>
<td>3. Sílli (K)</td>
<td>2,310</td>
</tr>
<tr>
<td>(9 stories, Kostakis 1968: 116–130)</td>
<td></td>
</tr>
</tbody>
</table>
The variable use of *se* and *∅*

- Phloïtá Cappadocian:

<table>
<thead>
<tr>
<th></th>
<th>‾ adnominal genitive</th>
<th>+ adnominal genitive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td><em>se</em></td>
<td>188</td>
<td>97.4</td>
</tr>
<tr>
<td><em>∅</em></td>
<td>5</td>
<td>2.6</td>
</tr>
<tr>
<td>Total</td>
<td>193</td>
<td>100</td>
</tr>
</tbody>
</table>

χ²(1) = 91.3, *p* < .001

The odds of dropping *se* are 76.92 times higher in the presence of an adnominal genitive.
The variable use of *se* and *∅*

- Phloïtá Cappadocian:

\[(11)\]  
\[ce \quad ben \quad [\textit{devrefú \ to \ spit}],\]  
and enters dervish.\textsc{gen} the house  
[\textit{so \ tecé}]  
to the convent  
‘And he goes into the dervish’s house, into the convent.’  
(Dawkins 1916: 416)
The variable use of *se* and $\emptyset$

- Silliot:

<table>
<thead>
<tr>
<th></th>
<th>– postposition</th>
<th>+ postposition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td><em>se</em></td>
<td>16</td>
<td>39.0</td>
</tr>
<tr>
<td>$\emptyset$</td>
<td>25</td>
<td>61.0</td>
</tr>
<tr>
<td>Total</td>
<td>41</td>
<td>100</td>
</tr>
</tbody>
</table>

$\chi^2 (1) = 6.37, p < .05$

The odds of dropping *se* are 10.25 times higher in the presence of a postposition.
The variable use of *se* and ∅

- Silliot:

  (12) a. *vémbi*=*ta*  [*st’ ambéλa*]
  
  sends=them to the vineyards
  ‘She sends them to the vineyards.’
  (Dawkins 1916: 286)

  b. *kónis*=*ta*  [*tʃin kúpa apésu*]
  
  pour=OBJ the cup inside
  ‘Pour it into the cup.’
  (Dawkins 1916: 300)
The variable use of *se* and *∅*

<table>
<thead>
<tr>
<th>Pseudo-incorporation</th>
<th>Omission of <em>se</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Only locations, not parts of locations</td>
<td>Both locations and parts of locations</td>
</tr>
<tr>
<td>2. Only prepositional complements</td>
<td>Both complements and adjuncts</td>
</tr>
<tr>
<td>3. Does not introduce discourse referents</td>
<td>Introduces discourse referents</td>
</tr>
<tr>
<td>4. No regular modifiers</td>
<td>Regular modifiers are fine</td>
</tr>
</tbody>
</table>

(Ioannidou & den Dikken 2009; Terzi 2010; Gehrke & Lekakou 2013)