Contact-induced morphological change: Cappadocian Greek ‘agglutinative’ morphology revisited

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1 INTRODUCTION

Cappadocian Greek

(map from Dawkins 1916)

- **1071**: separated from the rest of the Greek-speaking contingent (Janse 2002).
- **1923**: relocation of the Cappadocian-speaking populations in mainland Greece.
- Isolation and intense language contact with surrounding Turkish led to extensive inter- and intradiatlectal variation and a large number of linguistic innovations in all components of the grammar

- “In [Cappadocian] morphology, we find such developments as an agglutinative pattern of inflection on nouns and verbs – a feature of Turkish, not at all typical of Greek. For example, the Greek genitive suffix -yu (as in spityu “of the house”) was reinterpreted as an agglutinative suffix and extended to all nouns” (Winford 2003: 83; emphasis added).
- Two novel inflectional endings, -ju and -ja, mark genitive case and plural number in the model of the Turkish -In and -IAR.
(1) ‘wolf

<table>
<thead>
<tr>
<th>Nominative</th>
<th>Genitive</th>
<th>Nominative</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Turkish</td>
<td>kurt</td>
<td>kurt-un</td>
</tr>
<tr>
<td>b. Cappadocian</td>
<td>likos</td>
<td>likos-ju</td>
</tr>
<tr>
<td>c. Greek</td>
<td>lik-os</td>
<td>lik-u</td>
</tr>
</tbody>
</table>

Problems:
a) the use of the novel inflectional endings was not ‘extended to all nouns’:

(2) Axó Cappadocian

<table>
<thead>
<tr>
<th>Singular number</th>
<th>Plural number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominative</td>
<td>piₘ=tiko-s</td>
</tr>
<tr>
<td>Genitive</td>
<td>piₘ=tik-u</td>
</tr>
<tr>
<td>Accusative</td>
<td>piₘ=tiko-Ø</td>
</tr>
</tbody>
</table>

b) the noun forms exhibiting the two novel endings are compatible with both a fusional and an agglutinative analysis:

(3) Ulaghátsh Cappadocian

nekaⱱu ‘woman-GEN’:

-ju ⇔ [genitive, singular]

or,

-ju ⇔ [genitive]

c) the two novel morphemes do not co-occur: *likos-ja-ju ‘wolf-PL-GEN’, cf. Turkish kurt-lar-in.


2 Greek Fusion versus Turkish Agglutination

Standard Greek (SG)

- Ralli 2000, 2005
- Noun forms: [lexical root + inflectional ending]
- Eight (8) inflectional classes based on allomorphic variation of the lexical roots and the set of endings that combine with them.
- Noun features: a) Inflectional class: 1-8
  b) Number: singular, plural
  c) Case: nominative, genitive, accusative
  d) Gender: masculine, feminine, neuter
- Lexical roots: gender, inflectional class.
- Inflectional endings: number, case, inflectional class.
- Fusion: one-to-many relation between form and function (Crystal 1991)

(4) SG

anthropos ‘man’ – singular paradigm

Nom anthropos
Gen anthropu
Acc anthropo
| Lexical root: | an\(^\theta\)rop- | $\leftrightarrow$ [masculine, IC1] |
| Inflectional endings: | -os | $\leftrightarrow$ [singular, nominative, IC1] |
|                     | -u  | $\leftrightarrow$ [singular, genitive, IC1] |
|                     | -o  | $\leftrightarrow$ [singular, accusative, IC1] |

**Turkish**

- Göksel & Kerslake 2005
- Noun forms: [base + inflectional ending]
- No inflectional classes: the same inflectional endings combine with all nouns.
- Noun features: a) Number: singular, plural
  b) Case: nominative, accusative, genitive, dative, locative, ablative
- Number and case are expressed by separate inflectional endings.
- Agglutination: one-to-one relation between form and function.

(5) **Turkish**

<table>
<thead>
<tr>
<th>adam</th>
<th>‘man’ – plural paradigm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom</td>
<td>adamlar</td>
</tr>
<tr>
<td>Acc</td>
<td>adamlarî</td>
</tr>
<tr>
<td>Gen</td>
<td>adamlarin</td>
</tr>
<tr>
<td>Dat</td>
<td>adamlara</td>
</tr>
<tr>
<td>Loc</td>
<td>adamlarda</td>
</tr>
<tr>
<td>Abl</td>
<td>adamlardan</td>
</tr>
</tbody>
</table>

Base: *adam*

| Inflectional endings: | -lAr | $\leftrightarrow$ [plural] |
|                      | -Ø   | $\leftrightarrow$ [nominative] |
|                      | -I   | $\leftrightarrow$ [accusative] |
|                      | -(n)In | $\leftrightarrow$ [genitive] |
|                      | -A   | $\leftrightarrow$ [dative] |
|                      | -DA  | $\leftrightarrow$ [locative] |
|                      | -DA n | $\leftrightarrow$ [ablative] |

3 **Cappadocian Nominal Morphology: Fusion or Agglutination?**

- Axó and Ulaghátsh varieties.
- Axó Cappadocian: Dawkins 1916, Mavrochalyvidis & Kesisoglou 1960
- Ulaghátsh Cappadocian: Dawkins 1916, Kesisoglou 1951
- Noun forms: [lexical root + inflectional ending]
- Noun features: a) Number: singular, plural
  b) Case: nominative, genitive, accusative
- No gender distinctions: invariable article, adjectives

(6) **Axó Cappadocian**

a. *to kalo* arxopos ‘the good man’ cf. SG *an\(^\theta\)ropos\(^\text{MASC}\)*

b. *to kalo* neka ‘the good woman’ cf. SG *jineka\(^\text{FEM}\)*

c. *to kalo* pei ‘the good child’ cf. SG *pe\(^\delta\)i\(^\text{NEUT}\)***
(7) **Cappadocian; Axó variety**  

<table>
<thead>
<tr>
<th>wolf</th>
<th>shepherd</th>
<th>sleep</th>
<th>person</th>
<th>door</th>
</tr>
</thead>
<tbody>
<tr>
<td>SINGULAR NUMBER</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominative</td>
<td>liko-Ø</td>
<td>pi~tiko-Ø</td>
<td>jipnos-Ø</td>
<td>numati-Ø</td>
</tr>
<tr>
<td>Genitive</td>
<td>lik-ju</td>
<td>pi~tik-u</td>
<td>jipnos-ju</td>
<td>numat-(u)</td>
</tr>
<tr>
<td>Accusative</td>
<td>liko-Ø</td>
<td>pi~tiko-Ø</td>
<td>jipnos-Ø</td>
<td>numat(i)-Ø</td>
</tr>
</tbody>
</table>

| PLURAL NUMBER |
| Nominative | lik-(i) | pi\~tik-i | jipnos-ja | numat-e(s) | tir-es |
| Genitive | lik-ju | pi\~tik-u | jipnos-ju | numat-es-ju | tir-es-ju |
| Accusative | lik-jus | pi\~tik-jus | jipnos-ja | numat-jus | tir-es |

(8) **Cappadocian; Ulaghältsh variety**  

<table>
<thead>
<tr>
<th>devil</th>
<th>sleep</th>
<th>woman</th>
<th>water</th>
<th>cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>SINGULAR NUMBER</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominative</td>
<td>javolo-s</td>
<td>jipnos-Ø</td>
<td>neka-Ø</td>
<td>lero-Ø</td>
</tr>
<tr>
<td>Accusative</td>
<td>javol-ju</td>
<td>jipnos-ju</td>
<td>neka-ju</td>
<td>lero-ju</td>
</tr>
</tbody>
</table>

| PLURAL NUMBER |
| Nominative | javol-ja | jipnos-ja | nek-es | ler-a | pumat-a |
| Accusative | --- | --- | --- | --- | --- |
| Genitive | --- | --- | nek-es-ju | --- | --- |

- Inflectional classes: \(pi \sim tiko\) - \(pi \sim tiki\) versus \(jipnos\) – \(jipnosja\).
- Lexical root allomorphy: \(liko\sim lik\), \(pi \sim tiko\sim pi \sim tiki\), \(numati\sim numat\), \(tira\sim tir\); \(javolo\sim javol\), \(neka\sim nek\), \(lero\sim ler\), \(puma\sim pumat\).
- Number and case can be expressed either by a single (‘portmanteau’) inflectional ending or by two distinct inflectional endings.

‘Portmanteau’ inflectional endings

<table>
<thead>
<tr>
<th></th>
<th>[singular, nominative]</th>
<th>liko-s, pi~tiko-s; javolo-s</th>
</tr>
</thead>
<tbody>
<tr>
<td>-s</td>
<td>↔</td>
<td></td>
</tr>
<tr>
<td>-i</td>
<td>↔</td>
<td>lik-(i), pi~tik-i</td>
</tr>
<tr>
<td>-jus</td>
<td>↔</td>
<td>lik-jus, pi~tik-jus, numat-jus</td>
</tr>
<tr>
<td>-s</td>
<td>↔</td>
<td>tira-s</td>
</tr>
</tbody>
</table>

Inflectional endings bearing one feature only

- \(numat-es-ju\), \(tir-es-ju\), \(nek-es-ju\): separate marking for number and case.
- \(es\) ↔ [plural]
- \(ju\) ↔ [genitive]

- \(jipnos-ja\), \(javol-ja\), \(ler-a\), \(pumat-a\): nominative/accusative merger → neutralization of case contrast; number contrast only.
-ja $\Leftrightarrow$ [plural]

-\text{-a} $\Leftrightarrow$ [plural]

-\text{u} $\Leftrightarrow$ [genitive]

\text{Two types of inflectional endings:}
\begin{enumerate}
  \item a) endings expressing the feature bundle \([\text{number}, \text{case}]\) \((-s, -i, -\text{jus}, -s),\) and
  \item b) endings expressing only one feature, either number \((-\text{es}, -\text{ja}, -\text{a})\) or case \((-\text{ju}, -\text{u})\).
\end{enumerate}

\text{The change in Cappadocian did not involve the complete adoption of an agglutinative inflectional pattern from Turkish but, rather, the expression of number and case by separate inflectional endings.}

\textbf{The genitive plural question}
\begin{itemize}
  \item *\text{jipnos-ja-ju}, *\text{javol-ja-ju}
  \item Axó and Ulaghátsh Cappadocian
    \begin{enumerate}
      \item no ‘inherited’ \(-\text{on} \) inflectional ending (cf. SG \textit{anthropon} ‘man-PL-GEN’)
      \item genitive singular/plural merger
      \item separate marking for number and case \((-\text{esju})\)
      \item lexical gap
    \end{enumerate}
  \item SG: genitive plural forms and, to a lesser extent, genitive singular forms are unproductive in some nouns, e.g. diminutives in -\text{aki}, -\text{itsa}.
\end{itemize}

(9) \textbf{SG}
\begin{enumerate}
  \item a. Genitive plural of \textit{kareklaki}, \textit{kareklitsa} \(< \textit{karekla} ‘chair’
  \item ?\textit{kareklakion}
  \item ?\textit{kareklitson}
  \item b. Genitive plural of \textit{papça} ‘duck’
  \item ?\textit{papçon}
\end{enumerate}

\text{Cypriot Greek: genitive plural has merged with the accusative plural, under the influence of French (Terkourafi 2005)}

(10) \textbf{Cypriot Greek}
\begin{enumerate}
  \item \textit{o misf\~{o}s tus ipallilus} “the salary the employee-PL-ACC”
\end{enumerate}

\(\text{vs.}\)

(11) \textbf{SG}
\begin{enumerate}
  \item \textit{o misf\~{o}s ton ipallilon} “the salary the pipes-PL-GEN”
\end{enumerate}

\text{Separate marking of number and case in \textit{numat-es-ju}, \textit{tir-es-ju}, \textit{nek-es-ju}.}
\text{Other possible combinations (plural number + accusative case) do not occur due to a) the merger of nominative and accusative cases in the nouns which have one of the inflectional endings that express plural only (e.g. tires, nekes, jipnosja,}
 jovila), or b) the expression of the [plural, accusative] feature bundle by the innovative inflectional ending -jus (e.g. likjus, pi^2itkju̱s, numajus).

The role of Turkish as a contact language

- Bilingual speakers as agents of contact-induced language change:
  - able to draw freely upon the resources of their languages and to use their elements, structures and processes
  - resort to language ‘mixing’ in order to reduce the processing overload caused by the availability of two linguistic systems, which can differ in various aspects
  - eliminate the linguistic elements or features which cause cognitive inconvenience, in the sense of making it hard for them to differentiate between their respective linguistic systems.

- The underlying representations of Greek, Cappadocian and Turkish nouns:

  Greek: [number, case, gender, inflectional class] ⇔ fusional
  Cappadocian: [number, case, gender, inflectional class] ⇔ fusional
  Turkish: [number, case, inflectional class] ⇔ ‘mixed’

- The underlying representations of inflectional endings in Greek, Cappadocian and Turkish

  Greek: [number, case, inflectional class] ⇔ fusional
  Cappadocian: [number, case, inflectional class] ⇔ fusional
  Turkish: [number], [case] ⇔ agglutinative

4 SUMMARY

- The nominal inflection of Axó and Ulaghátsh Cappadocian was neither fusional nor agglutinative in the traditional sense of each term but, rather, a mixed system with both fusional and agglutinative characteristics.

- Inflectional endings which express the feature bundle [number, case] indicate fusion.

- Inflectional endings which express either [number] or [case] only point towards a certain degree of agglutination.
All inflectional endings are Greek. There are no morphological borrowings from Turkish. What seems to have been borrowed from the Turkish agglutinative inflectional system is the separate marking for number and case.

The motivation for the change can be searched for in the attempt of Cappadocian-Turkish bilingual speakers to reduce the processing overload caused by the differences in the underlying representations of nouns and the associated morphological patterns of word formation in the two languages.

REFERENCES