

Case government vs Case agreement: modelling Modern Greek case attraction phenomena in LFG

Dr. Kikia Chatsiou, University of Essex
achats at essex.ac.uk

1. Case attraction in nominal Modern Greek Free Relative Clauses

In nominal Modern Greek Free Relative Clauses (henceforth FRCs), the free relative pronoun introducing them (e.g. *ópjos*), which is inflected for case, gender and number, agrees in gender and number with the correferent resumptive pronoun in the same clause, as in (1):

- (1) Zilepses [*ópjon* i Maria tu edose ena fili]
 were.jealous._{2SG} whoever.MSG-ACC the.FSG-NOM Mary him.MSG-GEN gave._{3SG} a kiss
 'You were jealous of whoever Mary gave a kiss to.'

The relative pronoun *ópjos* also takes its case from the grammatical function it fulfils within the matrix clause (here an object of *zilepses*, hence in accusative), whereas the resumptive pronoun takes its case from the grammatical function it fulfils in the FRC (here an Indirect Object, hence in genitive):

- (2) a. * Zilepses [*ópju* i Maria tu edose ena fili]
 were.jealous._{2SG} whoever.MSG-GEN the.FSG-NOM Mary him.MSG-GEN gave._{3SG} a kiss
 'You were jealous of whoever Mary gave a kiss to.'
- b. * Zilepses [*ópjon* i Maria ton edose ena fili]
 were.jealous._{2SG} whoever.MSG-ACC the.FSG-NOM Mary him.MSG-ACC gave._{3SG} a kiss
 'You were jealous of whoever Mary gave a kiss to.' (Standard Modern Greek)

However, when a nominal FRC is topicalised/fronted, the presence of the doubling clitic makes the genitive case possible, and the free relative pronoun can alternatively fulfil the case requirements of the matrix clause (accusative) or those of the FRC (genitive), as in (3). The relative pronoun agrees in gender and number with the doubling clitic, too, as expected.

- (3) [*Ópju/Ópjon* i Maria tu edose ena fili], ton zilepses.
 whoever.MSG-GEN/.ACC the.FSG-NOM Mary him.MSG-GEN gave._{3SG} a kiss , him.MSG-ACC were.jealous._{2SG}
 'You were jealous of whoever Mary gave a kiss to.'

The presence of the doubling clitic is of essence, as demonstrated by the unavailability of the genitive case in (4):

- (4) [**Ópju/Ópjon* i Maria tu edose ena fili], ___ zilepses.
 whoever.MSG-GEN/.ACC the.FSG-NOM Mary him.MSG-GEN gave._{3SG} a kiss , were.jealous._{2SG}
 'You were jealous of whoever Mary gave a kiss to.'

This observation has been referred to in the classical literature as *forward attraction of case* (Tzartanos, 1996: 169), and as case attraction or case mismatching in the more recent literature. Case attraction seems quite robust and independent of the thematic role of the free relative pronoun in the matrix and the FRC, as illustrated in (5):

- (5) a. I Maria edose ena fili [*ópju/*ópjos* irthe].
 the.FSG-NOM Mary gave._{3SG} a kiss whoever.MSG-GEN/.NOM came._{3SG}
- b. [*Ópju/Ópjos* irthe], i Maria tu edose ena fili.
 whoever.MSG-GEN/.NOM came._{3SG} , the.FSG-NOM Mary him.MSG-GEN gave._{3SG} a kiss
- c. [**Ópju/Ópjos* irthe], i Maria ___ edose ena fili.
 whoever.MSG-GEN/.NOM came._{3SG} , the.FSG-NOM Mary gave._{3SG} a kiss
 'Mary gave a kiss to whoever came.'

2. Modelling agreement in gender and number

In constraint-based, unification-based frameworks like Lexical Functional Grammar (LFG) (Kaplan and Bresnan, 1982; Bresnan, 2001; Dalrymple, 2001) agreement between the free relative pronoun and its dependents, the within-FRC resumptive pronoun or the matrix clause doubling clitic, can be treated using some of the standard

proposals for agreement. Using a set of f-structure equations, the antecedent's (relative pronoun) and the dependents' number and gender features are constrained to have the same values, ensuring that they all agree in number and gender. The relevant equations for example (3) would look as follows (equations placed on the free relative pronoun c-structure node):

- (6) $(\uparrow\text{GF PRONTYPE}) = (\% \text{ANTECEDENT})$
 $(\% \text{ANTECEDENT}) = {}_c \text{frcrelpro}$
 $(\text{GF CLITIC } (\% \text{ANTECEDENT})) = (\% \text{DOUBLINGCLITIC})$
 $(\% \text{ANTECEDENT ADJ} \in \text{GF}) = (\% \text{RESUMPTIVE})$
- $(\% \text{ANTECEDENT GEND}) = (\% \text{DOUBLINGCLITIC GEND})$
 $(\% \text{ANTECEDENT GEND}) = (\% \text{RESUMPTIVE GEND})$
- $(\% \text{ANTECEDENT NUM}) = (\% \text{DOUBLINGCLITIC NUM})$
 $(\% \text{ANTECEDENT NUM}) = (\% \text{RESUMPTIVE NUM})$

3. Modelling government in case

Similar f-structure equations can be defined to ensure that all elements will get their case depending on the within clause function they fulfil and ensure that the resumptive pronoun and the free relative pronoun will get their case depending on the grammatical function they fulfil in the FRC, whereas the doubling clitic will take its case depending on the grammatical function it fulfils in the matrix clause. One way of handling this in LFG is to include information on the case of the thematic grammatical functions a verb subcategorises for in its lexical entry. Example (7) shows a sample lexical entry for the verb *zilepses* (was.jealous.2SG), where certain thematic grammatical functions (SUBJ, OBJ etc) are assigned a feature CASE with a specific value (*nom* for SUBJ, *acc* for OBJ).

- (7) *zilepses* V $(\uparrow\text{PRED}) = \text{'were.jealous<SUBJ,OBJ>'}$
 $(\uparrow\text{SUBJ CASE}) = \textit{nom}$
 $(\uparrow\text{OBJ CASE}) = \textit{acc}$

4. Modelling case attraction

Cases of attraction of case observed in nominal FRCS, as in (3), however, pose a potential challenge for unification-based frameworks like LFG, as in these environments the value of the CASE feature of a single f-structure can alternatively realise the CASE of the FRC or of the matrix clause grammatical function. Of course the phenomenon is not new and has been observed in other languages. We will outline previous LFG analyses and we will show that the Modern Greek data cannot be accommodated using proposals previously put forward for case mismatching phenomena in other languages, such as indeterminacy (Dalrymple and Kaplan, 2000), underspecification (Dalrymple, King and Sadler, 2009) or lexical sharing (Wescoat, 2005).

In our analysis of case attraction in Modern Greek FRCS, we propose an LFG analysis which treats the free relative pronoun as the head of the FRC's f-structure and the rest of the relative clause as an adjunct to the free relative pronoun, a treatment similar to that of restrictive and non-restrictive relative clauses. Building on Echevarría and Ralli's (2000) observations on the role of the doubling clitic in facilitating case alternation in clitic left dislocated constructions, we propose an alternative solution that uses anaphoric binding and relies on the use of an INDEX feature on the f-structures of the doubling clitic and the free relative pronoun. This feature is used to constrain case alternation on the free relative pronoun introducing a fronted FRC and to either matrix or FRC within-clause case is allowed.

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