Sentential complementation: nominalization and other strategies
M. Rita Manzini and Anna Roussou
University of Florence and University of Patras
mariarita.manzini@unifi.it, aroussou@upatras.gr
Incontro di Grammatica Generativa 46 (IGG46), Siena 23-26/02/2021

Goal
To discuss the strategies of sentential complementation (limited to IE languages) in interaction with finiteness; to consider the implications for the articulation of the left periphery.

- Sentential complementation: embedding of a sentence via a pronoun, or an oblique marker (preposition), or a linker (Balkan subjunctives), or of a predicate via a non-finite verb, or a combination of the above.
- Implications for the left periphery: no C position as such (see also Force and Fin, Rizzi 1997), some subordinators may be outside the left periphery of the clause they embed or part of the left periphery of the embedded clause.

1. Introduction
- Sentential complementation in Indo-European languages comes in two broad types.

(a) *Finite complements introduced by complementizers*: English *that*, Romance *che/que*, etc., which draw on pronouns (Manzini & Savoia 2003, 2011; Baunaz & Ladner 2018, a.o.).

(1)   So *che* fai questo
        'I know *that* you do this'

(b) *Non-finite ones with a specialized inflectional ending*, such as Romance *-re*, German *-en*, or a specialized marker, such as English *to*, Romance *de/di* or *a*, Germanic *zu*, etc., or a combination of both (Romance, German). [Participles are left aside]

(2)   Voglio anda*re*
        'I want *to* leave'
(3a)   Cerco *di* scrive*re*
        'I try to write'
(3b)   Vado *a* studia*re*
        'I'm going *to* study'

(4)
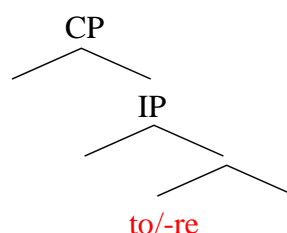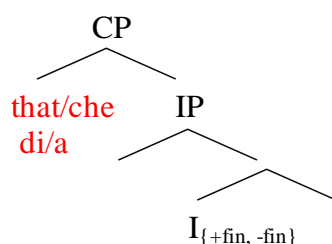
- C is a cover term for a variety of lexical items that fulfill the function of introducing a complement clause: subordinators or prepositions, or null morphemes. If anything, it describes the function of different lexical items in relation to embedding but says very little about their formal features.

A third case:

(c) *Balkan subjunctives*: a cross between finite and infinitival complements. Finite forms introduced by a subjunctive marker with the distribution of infinitives.

(5a) Dua   *të*   pi   (Albanian)
      want-1s   PRT   drink-1s
      'I want to drink'

(5b) ata   prisnin   *që*   Lindita*të* lexonte
      they   waited-3p   that   Lindita LKR read
      'They waited for Lindita to read'

(5c) Thelo   *na*   pjo   (Greek)
   want-1s   PRT   drink-1s
      'I want to drink'

- The basic question: is the subjunctive marker a complementizer or not?

(i) It can be selected by a specialized complementizer, as in Albanian (and Romanian)

(ii) Rivero 1994: subjunctive markers are below C in M (Modal)

(iii) Subjunctive markers occur in matrix (non-declarative) clauses as well (thus not restricted to embedding)

(6)   Alternatives within a split C-system (Rizzi 1997): Force and Fin

                      ForceP
                     /   \
              Force   FinP
                            /   \
                        Fin   IP
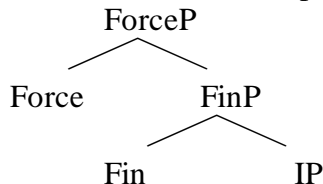
(i) Various options arise: complementizers in Force (or Fin), subjunctive markers in Fin (see Hill 2013) or Force, prepositional complementizers in Fin (Rizzi 1997).

(ii) Still, one label (C) is replaced by other labels (Force, Fin) without considering the properties of the lexical items that introduce complement clauses

- **A different perspective** – focusing on the lexical items as such may turn out to be more revealing regarding the strategies of sentential complementation and the architecture of grammar.
- **New questions**

(i) What do declarative complementizers have in common and how do they differ from prepositions?

(ii) How do subjunctive markers differ from either of these two?

This perspective has implications about the strategies of complementation cross-linguistically.

2. Complementizers = pronouns

- Identity of (declarative) complementizers and interrogative/relative/demonstrative pronouns in IE languages

(7a) So   che   fai   questo
      know-1s   that   do-2s   this
      'I know that you do this'

(7b) Il   lavoro che   fai   è   noto
      The   work   that   do-2s   is   known
      'The work you do is well-known'

(7c)   Che   fai?
           What do-1s?
           'What are you doing?'

(8a)   Nomizo   oti   eghrapse   ena   vivlio
           think-1s   that   wrote-3s   a   book
           'I think that she wrote a book'
(8b)   Aghorasa   oti   eghrapse
           bought-1s   what   wrote-3s
           'I bought what she wrote'

|	Comp	Relative	Interrogative	Demonstrative
che	✓	✓	✓	✗
that	✓	✓	✗	✓
oti	✓	✓ (free)	✗	✗

- Complementation as an instance of relativization: modification of a null head (Arsenijevic 2009, Kayne 2010) or a 'content argument' (Kratzer 2006, Moulton 2015), OR a headless relative (Manzini 2010).
- The complement clause gives rise to a nominal structure either via an implicit/null head or directly via the pronoun ('complementizer') (as in free relatives in argument position).
- Sentential complementation of this type is an instance of nominalization.

- Manzini & Savoia (2018): *The Agree Resistance Principle* (adapted)
Clauses cannot enter into Agree relations with v- or I-probes because of their lack of φ-features, unless they are embedded under a head that bears φ-features.
[cf. Stowell's (1981) Case Resistance Principle]

(9)

```
              ╱╲
          V        DP/QP
                  ╱╲
         that/che    ……
                    ╱╲
                        IP
```
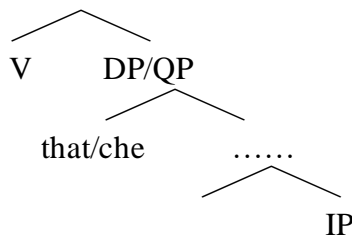
The label of the *that/che/oti*-complement is determined on the basis of their features (after Chomsky 2013, 2015), in any case drawn from the nominal set (see Manzini & Rousseau 2020).

3. Prepositional complementizers = prepositions
3.1 Italian di/a
- *Di* and *a* in Italian (2a-b) are prepositional complementizers (Kayne 1984, 2000, 2005).
- Kayne (2000, 2005): prepositional complementizers merge as prepositions above the selecting vP (so not in C) as below:

(8)   (i) [v [V [IP   (merge matrix V with the IP infinitive complement, then merge v)
         (ii) [$_{PP}$ IP *di* [vP [$_{VP}$ [~~IP~~ (merge *di* with the v/VP, then attract the IP to Spec,*di*)
         (iii) [$_{WP}$ VP *di* [$_{PP}$ IP ~~di~~ [(vP) [~~VP~~ (move *di* to W and attract the VP to Spec,*di*+W)
(for an extension of this idea to finite complementation see Angelopoulos 2019)

- Kayne (2000): the infinitival IP is nominal, i.e. there is an abstract nominal feature in I, which is missing in finite IPs. This allows an infinitival IP to be attracted to spec, *di* – but blocks this configuration for a finite IP. So, *di* licenses the infinitival IP. But what allows merge of the IP with the matrix predicate in the first place?

- Take the simplest view: a) prepositional complementizers are just prepositions, b) P merges with the selecting predicate and takes the clause (XP) as its complement.

- Oblique arguments with a locative/dative preposition

(11a) Diedi   il   libro   a   Gianni   [indirect object]
       gave-1s   the   book   to   John
       'I gave the book to John'.

(11b) Vado a   Siena   [locative]
       go-1s to   Siena
       'I go to Siena'

(12)   Il   libro di   mio   padre   [genitive, linker]
       the   book   of   my   father
       'the book of my father'

Di and *a* are selected by different predicates, so they are subject to selectional restrictions

(13)   Spero   di   vederla
       hope-1s   di   see-inf-her
       'I hope to see her'

(14)   The label of the new syntactic object is predicted to be that of the head (P)

```
            ╱‾‾‾‾╲
     cerco        diP (PP)
                 ╱‾‾‾╲
               di      XP        (where XP is at least IP)
```
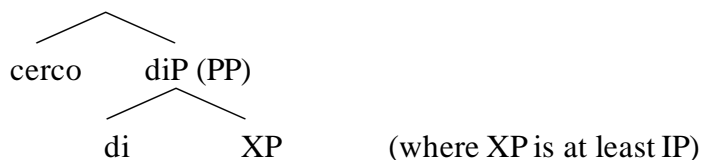
- The verb embedded under *di* must occupy a high position in the clause structure, above IP, given the position of the clitic in (13), i.e., enclisis.
- This is a different strategy: the clause turns into an argument via embedding under a P-predicate, as is the case with oblique arguments (see (11) and (12)); the ARP is not relevant.

-- We come back to the infinitival affix *-re* in 3.4

3.2 The paskajore in Geg Albanian

(15a) filluën   me   lëvisë
       began-3PL   with   stir
       'They began to stir'

(15b) dëshiroj   me   të   pa
       wish-1SG   with   you   see
       'I wish to see you'

- Observations:
(a) There is no infinitival morphology but just the bare stem, cf. English
(b) The verbal form is introduced by the preposition *me* 'with'; also, with other prepositions

(data from Manzini & Savoia 2007, 2018).

(16a) kɑ   fi'ɫu   mɛ   hã̃ŋəɾ
       has-3sg   finished   with   eat
       'He finished eating'
(16b) dola   pɑ   u   lɑ:
       went.out-sg without   MP   wash
       'I went out without washing myself'
(16c) jam   tu   ɛ   lɑ/tʃu/mlu/ve:ʃ
       am   at   him/her   wash/wake.up/cover/dress
       'I am washing/waking up/covering/dressing him/her'
(16d) t   kam   pɑ   tui   ka'lu
       you   have-1sg   seen   at   pass.by
       'I saw you passing by'   Geg Albanian, Shkodër

- As in Italian, these are instances of PPs. The structure embedded under the preposition is at least IP, given the position of clitics, i.e., proclisis (unlike enclisis in Italian -*re* infinitives).

(17)

```
            filluën    meP (PP)

                   me       XP        (where XP is at least IP)
```
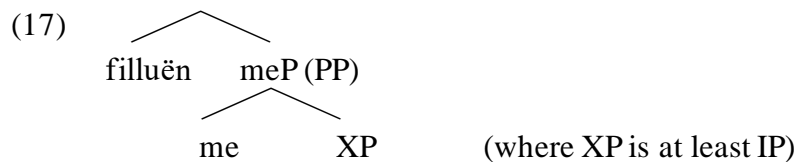
- The bare form distributes like participles in perfect tenses (active and medio-passive)
(18a) Active perfect tense
       ɛ   kan   mlu
       him/her   have-3pl   covered
       'They have covered him/her'
(18b) Middle-passive perfect tense
       jan   mlu   (pɾɛi s ɑms)
       are-3pl   covered by the mother
       'They have covered up/been covered (by mother)'   Geg Albanian, Shkodër

- Further embedding under another P (cf. English 'I arranged *for* you *to* see him'):
(19)   kam   i:k   *pər*   mas   *mɛ*   ɛ   pɑ
       have-1sg   left   for   not   with   him/her   see
       'I left not to see him/her'   Geg Albanian (Manzini & Savoia 2007)
       [P *pər* [(mas) [P *mɛ* [Cl ɛ [I pɑ

2.3 English infinitival marker 'to'
- The Romance examples translate as *to*-infinitives
- English *to* is also a preposition (closer to *a*)

(20a) I gave the book to John   [indirect object]
(20b) I'm going to Siena   [locative]

- *to* introduces an oblique argument. For Kayne (2000) the same derivation applies as for *di*.
- Does it have the same distribution as *di/a*?

(i) The verbal form is just the bare stem (cf. Geg Albanian)
(ii) Modal auxiliaries are excluded
(iii) Negation can precede or follow *to*

(21a)   I tried [not to leave early]
(21b)   I tried [to not leave early]
One possible answer: *to* embeds a constituent smaller than IP:

(22)   toP (PP)

        to   XP   (where XP is at least vP)
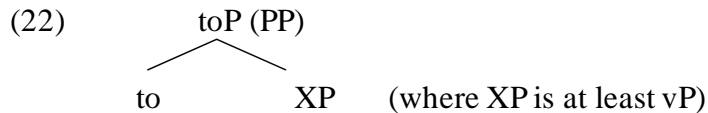
Pesetsky (2021): *to* merges above v/VP, and is not a T element (the shaded part exfoliates)

(23)   [$_{CP}$ C [$_{TP}$ T [$_{toP}$ *to* [$_{vP}$

(i) English *to*-clauses and the Albanian *paskajore*: a bare stem.
(ii) English and Italian (Romance): Italian has an infinitival affix *-re*, English has no inflection; [Kayne (2000) considers both nominal since they are attracted by prepositions].

- Ambiguity may arise:
(25)   I'm going *to* work
        (i) 'I'm about to start working'   [a complement clause]
        (ii) 'I'm on the process of going to my working place'   [a PP]

- Further embedding under another prepositions; instances of one PP embedding another:
(26)   arranged [$_P$ for [you [$_P$ to see him]]]

In fact (26) is like the Geg Albanian (18).

3.4 The infinitival affix
- Direct embedding of the infinitive:
(27)   Voglio andare
        'I want *to* leave'

- Kayne 2000: the Romance infinitive has an abstract nominal/Agr feature.

- <u>The present proposal</u>: what is nominal is the inflectional affix *-re* that satisfies the EPP; it is a D element (pronoun) whose reference is not specified, unlike finite inflection which is specified for phi-features (Italian).
(28)   I

        anda-   -re$_D$
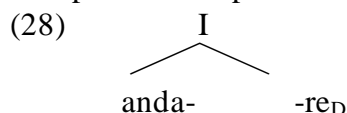
- The reference of *-re* is fixed syntactically under embedding; the most obvious case is that of control.
- In other words, it can be understood as the inflectional equivalent of the 'minimal pronoun' of Landau (2015) – which for him is PRO. Finite inflection, on the other hand, is a full pronoun.
- English lacks both: no inflectional equivalent of a full pronoun; the latter is obligatory in

6

finite contexts. No inflectional equivalent of a minimal pronoun – i.e. the unsaturated theta-role is bound by an argument of the matrix clause or generically closed.

- (Geg) Albanian has finite inflection as the equivalent of a full pronoun (see Italian), and no inflection (see English.

- The ARP is once again circumvented by the fact that control requires the infinitival complement to be a predicate.
- Direct embedding does not require infinitival morphology (but in any case, it is subject to selection):

(29a) I dare leave

(29b) ε   kan   mlu   (Geg Albanian (17a))
       him/her   have-3pl   covered
       'They have covered him/her'

Interim summary
Sentential complementation is mediated:
(i) via a pronoun, satisfying the ARP (propositional attitude verbs)
(ii) via a P (an oblique marker), the ARP irrelevant
(iii) via direct embedding of a predicative clause (infinitives, bare stems), the ARP irrelevant

4. Subjunctive (Balkan) complements

- Balkan subjunctives: finite complements introduced by specialized 'subjunctive' markers. The real question concerns the nature (syntactic category) of these elements.

- Consider Albanian subjunctive *të* (the context is equivalent to Romance infinitives)

(30) Dua   *të*   pi
      want-1SG   PRT/LKR   drink-1SG
      'I want to drink'

- *të* is also a D/agreement element establishing a relation with the noun (cf. Greek polydefinites, see Lekakou & Szendrői 2012), i.e. it introduces a 'minimal pronoun' bound by the higher D:

(31a) disa djem   *të*   bukur
       some boys   LKR   nice
       'some nice boys'
(31b) disa mure   *të*   shtëpisë
       some walls   LKR   house-GEN.DEF
       'some walls of the house'

- The presence of *të* in these two contexts is not accidental but reduces to its status as a linker (also Sonnenhauser & Widmer 2019).

(32)   V(P)
           ╱   ╲
       dua   *të*P (D = Lkr)
                    ╱   ╲
                të   XP   (where XP is at least IP)
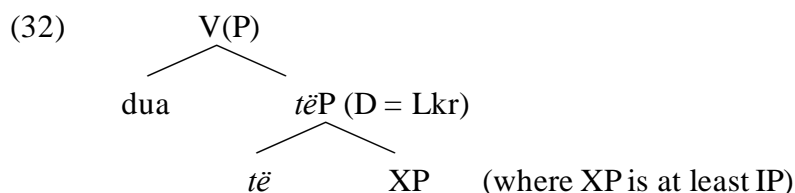
- A similar account extends to the Greek 'subjunctive' *na* – also a presentational element: Christidis 1985, Roussou 2009. [see Zanuttini (2017) on presentative *ecco* in Italian as an indexical]

(33a) Thelo   na   pjo
     want-1SG   PRT/LKR   drink-1SG
     'I want to drink'

(33b) Na   o   Janis!
     there the   John-nom
     'There is John!'

- If 'subjunctive' particles are analyzed as *linkers*, they qualify as the 'minimal pronoun' that converts the EPP argument to a variable to be bound by a higher argument, as is the case in (predication theories of) control.
- The notion of the 'minimal pronoun' is what makes subjunctive complements potentially similar to infinitives.
- The crucial difference though is that the EPP variable is already satisfied by finite inflection; *the linker is then a function that takes the specified EPP pronoun and converts it to a variable*.
- Obligatory control is dictated by the selecting predicate. Non-control occurrences of subjunctive particles/linkers are like Romance subjunctives.

5. Concluding remarks: what is left in the left periphery?
- The picture so far:
  (a) Complementizers = pronouns
  (b) Prepositional complementizers = prepositions
  (c) Subjunctive particles = linkers (D elements)
  (d) Infinitival affix = D pronoun

- There is no *a priori* restriction in the way they may combine:
Complementizer – subjunctive particle (Albanian, Romanian, Medieval Greek)

(27)   ata   prisnin   *që*   Lindita*të* lexonte
      They   waited-3p   that   Lindita LKR read
      'They waited for Lindita to read'

të-clauses in Albanian can be embedded under the (*that*-type) complementizer *që* (25) or under the preposition *për* (Italo-Albanian, Manzini and Savoia 2007) (similar examples in Romanian).

- The real question: is there is a C projection?
(i)   For Kayne (2000, 2005): complementizers and prepositional complementizers are part of the matrix clause and merge above the selecting predicate. Kayne seems to dismiss the C-periphery at least for these elements.
(ii)   For Rizzi (1997): two basic positions, Force and Fin. These can be construed as extended projections of the verb; the interpolation of nominal ones, hosting topics, foci, wh-elements (A' elements) is an option.

- Category C: the end.

References

Angelopoulos, Nikolaos. 2019. *Complementizers and Prepositions as Probes: Insights from Greek*. PhD dissertation, UCLA.

Arsenijević, Boban. 2009. Clausal complementation as relativization. *Lingua* 119: 39-50. DOI: https://doi.org/10.1016/j.lingua.2008.08.003

Baunaz, Lena and Eric Ladner. 2018. Deconstructing categories syncretic with the nominal complementizer. *Glossa: A Journal of General Linguistics* 3(1), 31. DOI: http://doi.org/10.5334/gjgl.349

Christidis, Anastasios Ph. 1985. Το δεικτικό 'να' [Deictic 'na']. *Studies in Greek Linguistics* 6: 221–241.

Hill, Virginia. 2013. The emergence of the Romanian subjunctive. *The Linguistic Review* 30 (4): 1-37.

Kayne, Richard. 1984. *Connectedness and Binary Branching*. Foris: Dordrecht.

Kayne, Richard. 2000. *Parameters and Universals*.b [Chapter 14]. Oxford: Oxford University Press.

Kayne, Richard. 2005. *Movement and Silence*. [Chapter 5]. Oxford: Oxford University Press.

Kratzer, Angelika. 2006. Decomposing attitude verbs. Available at https://semanticsarchive.net/Archive/DcwY2JkM/

Landau, Idan. 2016. A two-tiered theory of control. Cambridge, MA: MIT Press.

Lekakou, Marika and Krista Szendrői. 2012. Polydefinites in Greek: ellipsis, close apposition and expletive determimers. *Journal of Linguistics* 48: 107-149.

Manzini, M. Rita. 2010. The structure and interpretation of (Romance) complementizers. In Phoevos Panagiotidis (ed.), *The Complementizer Phase*, 167-199. Oxford: Oxford University Press.

Manzini, M. Rita. 2014. The Romance k- complementizers. In Peter Svenonius (ed.), *Functional Structure from Top to Toe. The Cartography of Syntactic Structures*, Volume 9, 148-187. New York: Oxford University Press.

Manzini, M. Rita and Anna Roussou. 2020. Recategorizing C.

Manzini, M. Rita and Leonardo M. Savoia. 2003. The nature of complementizers. *Rivista di Grammatica Generativa* 28. 87–110.

Manzini, M. Rita and Leonardo M. Savoia. 2007. *A unification of morphology and syntax. Investigations into Romance and Albanian dialects*. London: Routledge.

Manzini, M. Rita and Leonardo M. Savoia. 2011. *Grammatical Categories*. Cambridge: Cambridge University Press.

Manzini, M. Rita and Leonardo M. Savoia. 2018. *The Morphosyntax of Albanian and Aromanian Varieties*. Berlin/Boston: Mouton de Gruyter.

Moulton, Keir. 2015. CPs: copies and compositionality. *Linguistic Inquiry* 46: 305-342. https://doi.org/10.1162/LING_a_00183

Pesetsky, David. 2021. Exfoliation: Towards a derivational theory of clause size (v. 3).

Rivero, María Luisa. 1994. Clause structure and V-movement in the languages of the Balkans. *Natural Language and Linguistic Theory* 12: 63 - 120.

Rizzi, Luigi. 1997. The fine structure of the left periphery. In Liliane Haegeman (ed.), *Elements of Grammar*, 281-337. Dordrecht: Kluwer.

Roussou, Anna. 2009. In the mood for control. *Lingua* 119 (12): 1811-1836. DOI: https://doi.org/10.1016/j.lingua.2008.11.010

Stowell, Timothy. 1981. *Origins of phrase structure*. Cambridge, MA: MIT dissertation.

Sonnenhauser, Barbara and Paul Widmer. 2019. Prefixal articles across domains: Syntactic licensing in Albanian. *Folia Linguistica* 53: 25-49. DOI: https://doi.org/10.1515/flin-2019-2003

Zanuttini, Rafaella. 2017. Presentatives and the syntactic encoding of contextual information. In Enoch O. Aboh, Eric Habaerli, Genoveva Puskás, Manuela Schönenberger (eds), *Elements of Comparative Syntax. Theory and Description*, 221-255. Berlin/Boston: Mouton de Gruyter.