SLE 2012 Workshop 9: Parallels between the clausal and nominal domain

# "Imperfect" Parallels between Nominal Expressions and Clauses 

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Structure of the talk:

1. Imperfect parallels
2. Motivating the tripartition
3. Agree and $\varphi$
4. Concord is not Agreement
5. Deriving the imperfect parallels

Terminological caveat: Nominal Expression (NE) to refer to the complete nominal constituent, cf Bošković 2008 TNP, traditional noun phrase)

## 1. Imperfect parallels

A. Both Ns and Vs project an argument structure (1) BUT in NEs argument structure appears to be "less" obligatory, or optional (2)-4) (Grimshaw 1990, a. o.), or even impossible (5)-8] (Haegeman and Guéron (1999)).
(1) a. [The frequent expression *(of one's feelings)] is desirable.
complex event Ns
b. [The constant assignment *(of unsolvable problems)] is to be avoided.
c. [The instructor's examination *(of the papers)] took a long time.
(2) a. [That the doctor frequently examines *(the patient)] is advisable. transitive V/N b. [the doctor's frequent examination *(of the patient)] is advisable.
(3) a. [That John fears *(the earthquake)] proves that he is sensible. psychological V/N
b. [John's fear (of the earthquake) ] proves that he is sensible.
(4) a. [That Bill donated *(his paintings) (to the museum)] is well-known
ditransitive V/N
b. [Bill's donation (of his paintings) (to the museum)] is well-known.
(5) a. John considers Mary (to be) the best candidate.
raising
b. *John's consideration of Mary (to be) the best cadidate.
(6) a. John appears (to Mary) to be eating too much.
b. *John's appearance (to Mary) to be eating too much
(7) a. John believes Mary to be leaving soon.

ECM
b. *John's belief of Mary to be leaving soon.
(8) a. *Mary's consideration (by John) to be the best candidate.
b. *Mary's belief (by John) to be leaving soon.
B. Both NEs and clauses have a "subject" which must respect the hierarchy of the theta grid (Cinque 1980) BUT in nominal expressions the subject can be missing tout court.
(9) a. The enemy destroyed *(the city).
b. the enemy's destruction (of the city)
[AGENT > PATIENT / *PATIENT / AGENT]
c. the city's destruction (by the enemy) [PATIENT > (ADJOINED AGENT)]
d. \#\#the city's destruction of the enemy
e. the destruction was complete.
(10) a. John's picture of Mary
[AGENT > THEME / *THEME > AGENT]
b. his picture of her [AGENT > THEME / *THEME > AGENT]
c. her picture [AGENT / THEME]
d. the picture was beautiful
(11) a. Mary likes [John's pictures of her/*herself] DP with a possessor is a binding domain
b. Mary never likes [any picture of herself/*her] DP without a possessor is not a BD
C. Both NEs and clauses have been claimed to have three layers 12-(13) all of which can be split according to a universal hierarchy BUT nominal expressions display a simpler structure.
(12)


(i) If NEs have a left periphery, it is much more reduced than in clauses.

-     - In Italian, only emphatic topical adjectives 14]-16, no focus 17)-(18, no PPs 19, cf. Giusti (1996, 2006):
(14) a. le sue lunghe trecce bionde the her long braids blond
b. *le sue bionde trecce lunghe
(15) a. le lunghe sue trecce bionde
b. le bionde sue lunghe trecce
(16) a. le lunghe, bionde sue trecce
b. le bionde, lunghe sue trecce
poss $>$ long $>\mathrm{N}>$ blond
*poss > blond > N > long
long $>$ poss $>\mathrm{N}>$ blond
blond $>$ poss $>\mathrm{N}>$ long
long blond $>$ poss $>\mathrm{N}>$
blond long $>$ poss $>\mathrm{N}>$
(17) a. le LUNGHE, (bionde) sue trecce
long blond $>$ poss $>\mathrm{N}>$
b. le (lunghe), BIONDE sue trecce
blond long $>$ poss $>\mathrm{N}>$
(18) a. le sue bionde trecce LUNGHE
long blond $>$ poss $>\mathrm{N}>$
b. le sue lunghe sue trecce BIONDE
blond long $>$ poss $>\mathrm{N}>$
(19) a. le di lei lunghe trecce bionde
poss $>$ long $>\mathrm{N}>$ blond the of her long braids blond
b. *le di Maria lunghe trecce bionde
- In Bulgarian, only topical or focused possessive PPs 20-21, no adjectives 22, cf. Dimitrova-Vulchanova and Giusti 1998, 1999):
(20) a. na Ivan tazi (mu) nova kniga Topicalization, optional clitic doubling to Ivan this his.CL new book
b. NA IVAN tazi (*mu) nova kniga Focalization, no clitic doubling to Ivan this (his.Cl) new book
(21) a. na Aristotel portretut (mu)
b. na Rembrand portretut (mu)
c. na Ivan portretut (mu) portrait-the of A./R./I.
(22) a. novata šekspirova kniga new-the sheakspeare.GEN.ADJ book
b. šekspirovata (*nova) kniga sheakspeare.GEN.ADJ -the new book
c. *nova(ta) tazi kniga new(-the) this book
(ii) Wh-elements cannot be checked inside the NE
(23) a. I wonder [whose book] you bought / [what time] it is
b. *I wonder whose book/what time
(iii) NEs display only second position clitics 25, no T-clitics 24, no clitic doubling 26:
(24) a. ne ho apprezzato la generosità extraction of genCL to the clausal T-domain [I] CL.3P.SG.GEN have appreciated the generosity
b. **la ne generosità
c. **la generosità ne
b. cartea-i (Romanian)
book.the-CL3P.SG.GEN
c. mammeta (Neapolitan, Ledgeway 2009) only some kinship terms
mother-your
a. to vivlio mu emena/EMENA
(Greek, Giusti and Stavrou 2008)
the book his
b. to vivlio-tu (*tu Iani/ *tu fititi)
no clitic doubling in the DP despite appearances
c. casa-i (*lui/*ei/*sa/*fetei)
(Romanian, Avram and Coene 2008)
D. In both NEs and clauses we find structural Case BUT clauses have two (nominative and accusative) while in in NEs we typically find one (genitive) if any.
(27) a. John's/his description of Mary structural genitive > PP
b. la sua descrizione di Maria the his description of Mary
c. ??la descrizione di Gianni di Maria the description of John of Mary
d. la recensione di Gianni su/??di quel film John's review on/of that film
(28) a. la tua descrizione (*mia)
only one possAP (Cinque 1980, G\&L 1991)
b. la (*tua) descrizione mia
c. la tua descrizione di me
possAP > PP [AGENT > THEME] the your description of me
d. la descrizione tua di me
e. *la descrizione di me tua


## 2. Motivating the tripartition

(29) Merge operates to satisfy Selection or Modification. (Giusti 2008, 2009, 2011)
a. Selection merges a lexical head (e.g., K), specified in the lexicon for selectional features, with a fully fledged constituent, or "perfect projection" that can satisfy such selectional features (e.g. WP, and in case of a second argument LP). This constituent is the projection of a head $(\mathrm{K}, \mathrm{L})$ that has an uninterpretable feature $\mu \mathrm{F}$.
b. Modification merges a fully fledged constituent (GP, HP) as a modifier of a lexical head K . This constituent is the projection of a head ( $\mathrm{G}, \mathrm{H}$, etc.) that has an uninterpretable feature $u \mathrm{~F}$.
c. In order for Selection and Modification to take place, the head remerges, as many times as needed. Projection creates a spine of copies of the head and a recursive label (KP) which is the extended projection in the sense of Grimshaw (1991).
d. The highest projection of the head provides the left edge of the Phase, which is the locus of interpretation and the interface to the higher phase (an extended projection of the head $X$ ).

The tripartition in (12-13) derives from Selection and Modification in a theory of Phases

- Selection takes place in the Lexical layer,
- Modification takes place in the Inflectional layer,
- the Complementation layer provides the left edge that allows the newly formed syntactic object to interact in a new selectional environment.
(31) Feature sharing is the consequence of Selection and Modification. Giusti (2008, 2009, 2011):
a. Agreement is a consequence of selection. The selector is associated to a functional head which targets the $\varphi$-features of an argument, (e.g. the subject or the object in the clause, the possessor in the NE) onto the projection of the predicate selecting it. This is done at a high rank in the inflectional layer and has the effect of remerging the $\varphi$-features of the targeted argument into a higher projection of the selecting head. This relation also results in the assignment of Case to the targeted argument.
b. Concord is a consequence of modification. It is a transfer of features, (e.g. Number, Word Class, and Case specifications present in the functional projections of a NE) from the head onto its specifier (e.g. an adjective phrase with its functional structure). This is triggered by $u \mathrm{~F}$ features of the modifier.
c. Projection results in feature scattering. It builds the spine of an extended constituent. In so doing, it creates "copies" of the head. The result is that all features of the head are shared at all instances of remerge. The realization of such features may be scattered in the created chain, giving rise to redundancy in some cases, but always constrained by the internal hierarchy of the bundle.


## 3. Agree and $\boldsymbol{\varphi}$

(32) Empirical differences between Clauses and Nominal Expressions
a. Clauses typically refer to TIME. NEs typically refer to an INDIVIDUAL (term or variable).
b. Finiteness, Mood, Aspect are modulations of TIME. $\varphi$-features (notably person and number) are modulations of INDIVIDUAL.
c. Argument NEs typically need Case. Argument clauses typically escape Case.
d. Clauses need a subject. NEs do not need a possessor (but may have one).
(33) The features that are interp retable on N identify the individual:
a. Gender may be part of the substantive content.
b. Number is related to the mass/count nature of N .
c. Person/Deixis sets the individual in the space.
d. Case is $u T$ (cf. Pesetsky and Torrego 2001, 2004), allows the individual to be interpreted as a participant of a situation which occurs at a given Time.

Claim 1: Ns have $/$ Person. Clauses have $I T$.
(34) EPP is a defining feature of the clause but not of a NE
a. For a proposition to be assigned a truth value, the situation referred to in the predicate must hold at the given TIME for the given SUBJECT (the "aboutness" relation). Tense is endowed with $U$ Person.
b. A NEs is valued for individual reference (identifies an individual in space not in time). Its $/$ Person is all is needed. $U T$ is necessary only when it is part of a higher projection (e.g. it is part of a situation, or in the discourse).

Question 1: Is there Agree in NEs? Yes (Giusti 2008)
(35) uPerson on N in Hungarian, (Szablcsi 1987, 1994)
a. az en kalapom the I.NOM. hat.1.PERS.SING
b. a te kalapod
the you.NOM hat . 2 PERS.SING
c. a Mari kalapja
the Mari.NOM hat .3.PERS.SING

Italian possessive APs and the pronoun loro move to a high specifier, relational APs don't:
(36) a. La sua/loro inarrestabile invasione della Francia. D poss AP N AP PP

The his/their relentless invasion of France
a’. La sua/loro invasione inarrestabile della Francia.
b. \#l'inarrestabile loro/sua invasione della Francia. (OK if inarrestabile is dislocated)
c. \#l'inarrestabile invasione sua/loro della Francia (OK if Ioro/sua is contrastive focus)
(37) a. l'inarrestabile invasione tedesca della Francia.

D AP N RelAP PP the relentless German invasion of France
b. *la tedesca inarrestabile invasione
c. *l'inarrestabile tedesca invasione
d. *la tedesca invasione inarrestabile

(39) Italian possAP and genitive Ioro have Person features, relational adjectives do not:
 the his/their advance took him/them to Paris
b. \#L'avanzata tedesca ${ }_{\mathrm{i}} \mathrm{l} \mathrm{i}_{\mathrm{i}}$ ha condotti fino a Parigi
(40) In Italian only light possessors move (Giusti 2008)
a. John's book
b. il libro di Gianni
c. \#il di lui libro
d. *il di Gianni libro

Claim 2: D in NE targets the person feature of the possessor.
(41)Verbal predication structure, Pesetsky and Torrego (2004)

SUBJ Ts [ $v p v$ To [VP V OBJ]]
(42) InHERITABILITY (Richiards 2007)
$u F$ must spread from edge to non-edge (i.e., from C to $\mathrm{T}, \mathrm{v}^{*}$ to V , etc.).
(43) Principle of Phasal Composition (Hintzen 2012:325)

When a referential argument becomes part of a higher phase, it functions as a descriptive predicate that helps to identify the referent of the higher phase.
(44) Threefold semantic ontology (parallel to the typology of phases) (Hintzen 2012:325):
a. objects (reference in space)
b. events (reference in time)
c. propositions (reference in discourse)

## Question 2: What $u \mathrm{~F}$ does the possessor have?

(45) It cannot be $u T$
a. \#The king of France is bold. if $u T$ if valued by $/ T$ the proposition is not true.
b. The crown of the king of France is at the Louvre.
(46) A goal that satisfies the $u$ Person of a T-probe receives a $\mu \mathrm{F}$ according to the different typology of probes.
(47) Structural Case is a $u \mathrm{~F}$ on a goal.
a. Accusative $\langle T$
(cf. Pesetsky and Torrego (2004) To)
b. Nominative $U \mathrm{C}$ (cf. Chomsky 2005, Richards 2007)
c. Genitive $u \mathrm{D}$
d. Prepositional Case $\langle\mathbf{P}$ (supertentative!)
e. Vocative $u$ Disc(ourse) (also supertentantive!!)
(48) Agree is asymmetric in all dimensions:
a. structurally: the probe c-commands the goal (not vice versa)
b. featurally: the $\mu \mathrm{F}$ of the probe are part of the specification of the lexical head, the $u \mathrm{~F}$ of the goal depends on the goal.
(49) Embedded Force (CP) cannot carry $\langle T$, but can have an antecedent carrying $u T$.
a. Is it possible in all Romance languages [CP that the subject is missing]?
b. *Is [CP that the subject is missing] possible in all Romance languages?
c. Is [ ${ }_{\mathrm{DP}}$ the fact [ ${ }_{\mathrm{CP}}$ that the subject is missing]] possible in all Romance languages?
(50) The aboutness relation is necessary to obtain propositional reference.
a. Embedded CPs refer to facts/truths and include interpretable T.
b. They are incompatible with $U T$.
c. The expletive allows for the aboutness relation to occur in the higher predicate.

## 4. Concord is not Agreement

(51) Differences between Agreement and Concord
a. Agreement involves Person (which includes number), Concord involves Case, Number, Gender/word class (cf. Baker 2007).
b. Agreement is a c-command relation between a head (the probe) and a syntactic object in its c-domain 38. Concord is a Spec-Head relation.
c. Agreement triggers internal merge. Concord does not cf. 36- 37.
d. Agreement is a property of the Phase (Chomsky 2005, 2008), inherited by the nonphase (Richards 2007). Concord is insensitive to the phase/non-phase distinction.
e. Agreement is typically a one-to-one relation. Concord is serial.
f. Agreement and Concord may occur between the same pair of syntactic objects (e.g. possessive adjectives in Italian 36 above):

## 5. Deriving the "imperfect" parallels

Summarizing the proposals so far:

1. Ns have $\mathbb{I}$ Person. Clauses have $\Pi$.
2. D in NE targets the person feature of the possessor.
3. Genitive Case is $u \mathrm{D}$
4. NEs have one phase only.
A. Obligatory vs. Optional argument structure (1)-4:

- V is associated to an $/ T$, for an argument to be interpreted as taking part in the situation, it must have not only reference in space, but also in Time.
- N is associated to a /Person. It needs no further specification to be interpreted in its phase.
- The only case of obligatory internal argument in complex event NEs is compatible only with a minimal iPerson (singular, definite, non deictic, non-quantified):
(52) a The assignment *(of the problem) took a long time. (Grimshaw 1990)
b. This semester's assignment led to disaster
c. The constant assignment of unsolvable problems this semester led to disaster.
d. They observed the/*an/*one/*that assignment of the problem.
e. The assignment(*s) of the problems took a long time.

A'. Lack of reduced clausal complements (5)-8):

- ECM/Raising complements have a defective $T$ which restructures (Cinque 2004) with the T of the selecting V .
- N does not have a T at all. An infinitival TP cannot restructure with an N that can only have UT.
B. Optional genitive subjects 9 - 11
- Nominative Case satisfies the aboutness requirement at the propositional level (cf. Rizzi and Shlonsky 2004). There is no propositional reference in NEs
- A possessor restricts the object reference of the NE if present, but it is not required.

C-D. Reduced capacity.

- The lexical NP-layer is reduced because individual reference does not need participants.
- The inflectional NP-layer only includes modifiers, it does not include interpretable TAM Fs.
- IT can be further modified by aspectual and modal adverbs in the inflectional layer (TP);
- iPerson is modified by deixis, specificity, quantification in the complementation layer (DP).
- Apparent TAM specification on N are modifiers of N not part of its extended functional projection (Tonhauser 2007, 2008 vs. Nordlinger and Sadler 2004, 2008).
- Clauses are articulated into two phases CP and vP, NEs only have one phase. This brings with it:
- one position for clitic (only the second position, cf Roberts 2012);
- one position for structural Case,
- impossibility of iterated extraction,
- unclear distinction between A and A-bar movements (Cinque 1980, Giorgi and Longobardi 1991)
a. una persona di cui ho interrotto la/una descrizione degli avvenimenti
(Agent extraction)
a person of whom I interrupted the/a description of the events
b. Ne ho interrotto la/una descrizione la descrizione degli avvenimenti
CL.gen I interrupted the/a description of the events.
(54)
a. gli avvenimenti di cui ho interrotto la descrizione (*di Maria)
(Theme extraction)
the events of whom I have interrupted the description of Mary
b. Ne ho interrotto la descrizione (*di Maria).
CL.gen we have the description by Mary
(55)
a. gli avvenimenti di cui ho interrotto la/una (*tua) descrizione...
the events of whom I have interrupted the your description...
b. Ne ho interrotto la (*tua) descrizione.
CL.gen we have interrupted your description
- Discourse features (Foc, Wh-) are interpreted at the level of discourse (root clauses), the nominal LeftEdge makes the element interpretable at the next phase:
- only wh-pied-piping (I wondered [ph2 [ph1 what time] it was])
- only contrastive (topics of foci) 14]-19]
- determiners that identify the whole NEs as a topic or a focus (Aboh 2004)


## 6. Conclusions

## Wellcome properties of the proposal

- Compliance with Brody's (1997) Thesis of Radical Interpretability "Each feature must receive a semantic interpretation in some syntactic location."
- Agree is limited to phases (Chomsky 2008)
- Phases are limited to syntactic objects that have reference


## Results

- Imperfect parallels are related to one constitutive difference: VPs denote situations, NEs denote individuals
- Clauses denote propositions (a situation which holds at a given time about a given individual), so they are the only syntactic object which contains two phases.
- NEs are made of a single phase.
- The highest projection in the NE is Case, parallel to Force in the CP.


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