

Functional projections in the DP

The higher portion

DÉKÁNY Éva

the EGG 2016, Lagodekhi

1 Demonstratives

1.1 Heads or phrases?

- phrase: Giusti (1997), Brugè (2002), Roehrs (2010)
- head: ??????
- can be either: Panagiotidis (2000), Shlonsky (2004), Dékány (2011)

It depends on the language and the type of demonstrative ...

inflecting demonstratives

- | | | | | | |
|-----|----------------|------------------|-----|----------------|------------------|
| (1) | ez-ek-et | a ház-ak-at | (2) | az-ok-at | a ház-ak-at |
| | this-pl-acc | the house-pl-acc | | that-pl-acc | the house-pl-acc |
| | these students | | | those students | |

non-inflecting demonstratives

- | | | | | |
|----|---------------------|----|----------------------|-----------|
| a. | eme tanuló-k-at | d. | ama tanuló-k-at | |
| | this student-pl-acc | | those student-pl-acc | |
| | these students | | those students | |
| b. | ezen tanuló-k-at | e. | azon tanuló-k-at | |
| | this student-pl-acc | | those student-pl-acc | |
| | these students | | those students | Hungarian |
| c. | e tanuló-k-at | | | |
| | this student-pl-acc | | | |
| | these students | | | |

Inflecting demonstratives are phrases, non-inflecting demonstratives are heads.

short answers

(3) Which is the most beautiful house?

- (4) a. Ez / az.
this / that
This one / that one.
- b. *E / *eme / *ezen.
this / this / this.
This one.

anaphoric use

- (5) Ez / az el-fut-ott.
this / that away-run-past.3sg
This / that ran away.
- (6) *Eme / *ezen / *e el-fut-ott.
this / this / this away-run-past.3sg
This ran away.

use as appositive and modification by appositive

- (7) a ház-at, ez-t
the house-acc this-acc
the house, this one
- (8) ez-t, (vagyis) a ház-at
this-acc that.is the house-acc
this, that is, the house
- (9) *ama / *azon, (vagyis) a ház
that / that that.is the house
that, that is, the house
- (10) *a ház-at, (vagyis) eme-t
the house-acc, that.is this-acc
the house, this one

further evidence: ability of inflecting demonstratives to take number and case suffixes (elements which are demonstrably heads do not agree for these features of N).

1.2 Surface position

1.2.1 Spec, DP

English, Hungarian: spec, DP.

Dem > Art > N

- (11) *Moroccan Arabic*
had l wəld
this the boy
this boy (Shlonsky 2004)
- (12) *Abkhaz*
wəy á-jʁab
that.one art-girl
that girl (Rijkhoff 2002)
- (13) *Maltese*
dan il-ktieb
this the-book
this book (Plank 1992)
- (14) *Greek*
afto to spiti
this the house
this house (Ezcurdia 1996)

- | | |
|--|---|
| (15) <i>Old Norse</i> sá inn gamli hestr that the old horse the old horse (Lohndal 2007) | (16) <i>Ngiti</i> (Central Saharan) yà ndi dza this def house this house (Dryer 2005) |
| (17) <i>Colloquial Slovenian</i> tá ta nov pes this the new dog(.NOM) this new dog (Leu 2008) | (18) <i>Javanese</i> (Malayo-Polynesian) ika n anak this the child this child (Bernstein 1997) |

1.2.2 Below D

Several works argue that the base-position is lower than this (cf. Panagiotidis 2000, Rosen 2003, Shlonsky 2004, Grohman & Panagiotidis 2005, Alexiadou et al. 2007, Roehrs 2010, and the references in the last subsection).

Art > Dem > N

- | | |
|---|--|
| (19) <i>Yiddish</i> der dOziker mAn the this man this man (Ezcurdia 1996) | (21) <i>Pangasinan</i> (Malayo-Polynesian) sá-ma-y apók ART-DEM-LK grandchild.my that grandchild of mine (Diessel 1999) |
| (20) <i>Hawaiian</i> ke-ia kanaka the-this person this man (Ezcurdia 1996) | (22) <i>Samoan</i> (Malayo-Polynesian) si-nā pua'a ART-that pig that poor pig (Rijkhoff 2002) |

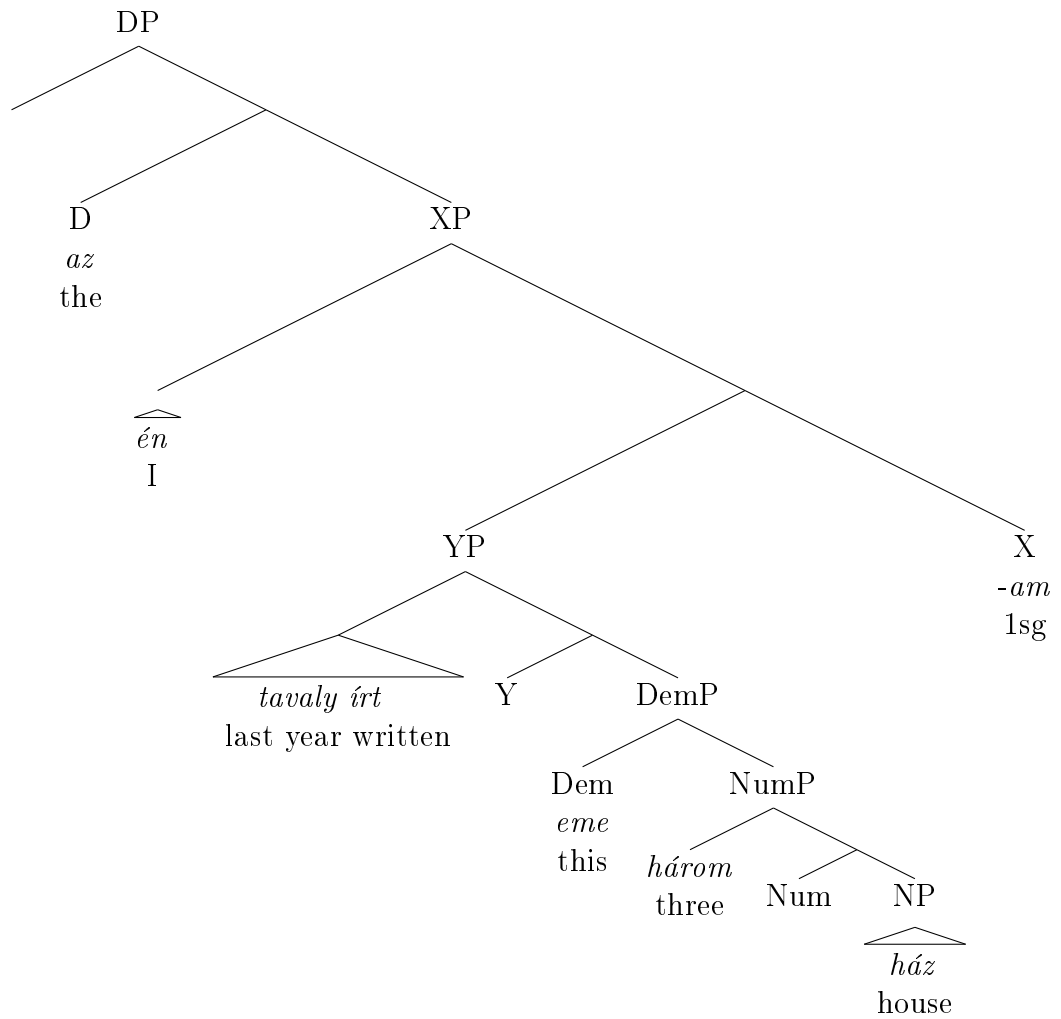
1.2.3 Two surface positions for Demonstratives: Hungarian

Hungarian non-inflecting demonstratives: follow the definite article, though can't be contiguous to it

- (23) a. (*az) eme három könyv-em
 the this three book-1sg
 these three books of mine
 b. *(az) én eme három könyv-em
 the I this three book-1sg
 these three books of mine
- (24) a. (*az) eme három könyv
 the this three book
 these three books
 b. *(a) [tavaly írt] eme három könyv
 the last.year written this three book
 these three books written last year

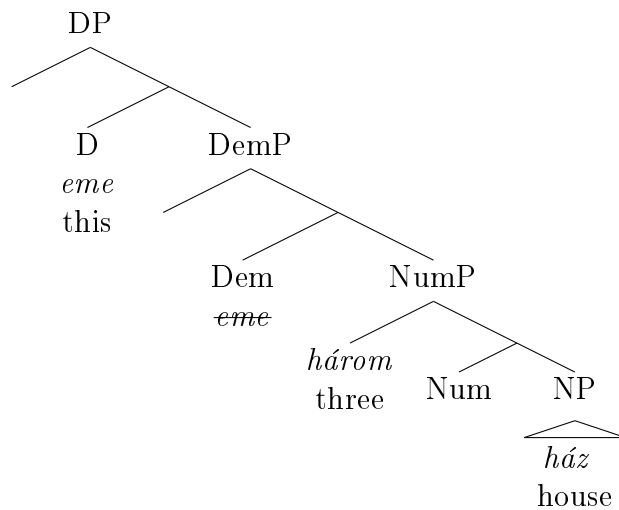
non-inflecting demonstratives are generated in Dem, below D but above Num

(25)



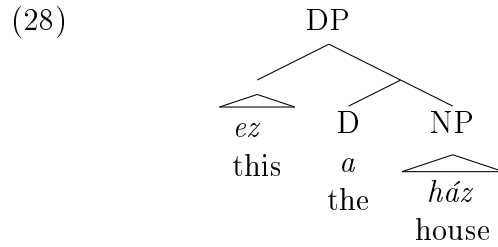
Ex. (23-a) is explained if i) they move to D when they can and ii) material merged between D and Dem blocks movement

(26)

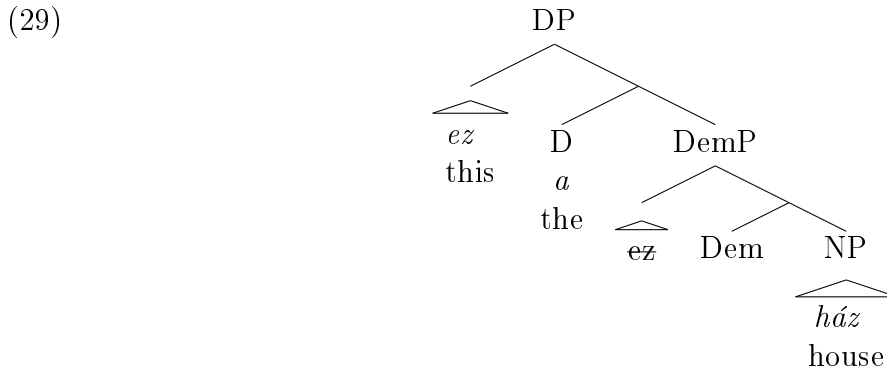


Hungarian inflecting demonstratives: obligatorily co-occur with the article and immediately precede it → spec, DP

(27) ez *(a) ház
 this the house
 this house



they are plausibly merged in spec, DemP and move to spec, DP



Functional sequence so far:

(30) D > (possessor) > (relative clause) > **Dem** > Q > Num > Adj > Cl > Adj > n > N

Inflecting and non-inflecting demonstratives do not co-occur: you can't fill both the head and the spec of DemP

1.3 A lower base-generated position?

Demonstratives are merged in a very low position: Brugè (2002), Giusti (1997), Panagiotidis (2000), Guardiano (2009), Roberts (2011)

(31) Russian (Franks 1994: ex. 15. and 20)

a. Èti pjat' krasivyx devušek prišli.
 these-NOM.PL five beautiful-GEN.PL girls-GEN.PL arrived-PL
 These five beautiful girls arrived.

b. Pjat' ètix krasivyx devušek prišli.
 five these-GEN.PL beautiful-GEN.PL girls-GEN.PL arrived-PL
 These five beautiful girls arrived.

(32) i nei afti katiki tis polis
 the new these inhabitant the-gen city-gen
 the new inhabitants of the city (Panagiotidis 2000) Greek

(33) [DP D [AP A [FP Dem [F' F [NP possessor agent N complement]]]]] (Brugè 2002, Giusti 1997)

(34) D > Gen1 > Num > A > Dem > Gen2 > NP (Guardiano 2009)

(35) [DP D [NumP Num [nP (AP)* [nP Dem n [NP N]]]]] (Roberts 2011)

(36) [DP D [NumP Num [NP Demonstrative [N' N complement]]]] (Panagiotidis 2000)

Some languages feature demonstrative reinforcers, e.g. English *this here book*. Reinforcers form a constituent with the demonstrative; it is subject to variation whether they raise with it to spec, DP or remain low.

- (37) ce livre_i rouge-ci t_i
 this book red-here
 this red book here (Brugè 2002) French
- (38) a. knjiga ova ovdie o sintaksi
 book this here of syntax
 this book here of syntax
 b. ova knjiga ovdie o sintaksi
 this book here of syntax
 this book here of syntax
 c. ona tamo nova knjiga
 that there new book
 that new book there (Brugè 2002) Bosnian

Functional sequence so far:

- (39) D > (possessor) > `(relative clause) > **Dem** > Q > Num > Adj > Cl > Adj > (**Dem?**) > n > N

2 Split DP

Uncontroversial: DP has a left-peripheral escape hatch. Hungarian has nominative/caseless possessors below D, and dative possessors above D.

- | | |
|---|---|
| <p>(40) az én könyv-em the I book-1sg my book</p> | <p>(41) nekem ez a könyv-em I.dat this the book-1sg this book of mine</p> |
|---|---|

Only dative possessors can extract.

- (42) Nekem_i elveszett [t_i a könyv-em].
 I.dat got.lost the book-1sg
 My book got lost.
- (43) *Én_i elveszett [a t_i könyv-em].
 I got.lost the book-1sg
 My book got lost.

The escape hatch is usually identified as spec, DP, but cf. (41), where the dative possessor must be above DP (the demonstrative is in spec, DP).

However, escape hatch \neq extended left periphery/split DP.

Some researchers argue for a split-DP, including analogues of FocP and TopP in DP.

DP-internal topic/focus: Giusti (1996), Knittel (1998), Ihsane & Puskás (2001), Aboh (2004b), Giusti (2005; 2006), Devine & Stephens (2006), Giusti & Iovino (2011; 2016), among others

However, the left periphery of NP is considered to be defective wrt. the clausal left periphery even in Giusti's works; not all languages have DP-internal Top/Foc, and languages may have one without the other.

2.1 TopP/FocP above D

Latin: Dem is leftmost in the unmarked Dem Poss.or Num A N order, but in a marked order it can be preceded by A, Num or a possessor, but only one a time.

- (44) a. *meus_i hic t_i forensis labor*
 my this forensic work
 this forensic work of mine
 b. *tres_i eos t_i lobros*
 three this book
 these three books
 c. *vetus_i nostra t_i similtas*
 old our hostility
 old hostility of ours (Giusti & Iovino 2011) Latin

(45) [Left peripheralP [DemP [NumP [AP NP]]]] (Giusti & Iovino 2011) Latin

(46) [TopP Top [CIP Cl [DP D [. . . N]]]] (Giusti 1996) Bulgarian

(47) [DP D [TopP Top(+specific) [FocP Foc [DefP Def(±definite) [. . . N]]]]]
(Ihsane & Puskás 2001) Hungarian

NB: Ihsane & Puskás (2001) present no evidence for movement that rearranges the unmarked order of elements

2.2 TopP/FocP below D

Italian: A can appear in the marked position bw. D and Poss.or

- (48) a. *le sue lunghe trecce bionde*
 the her long tresses blonde
 her long blonde tresses (NB: fixed order after poss.or)
 b. *le lunghe_i sue trecce t_i bionde*
 the long her tresses blonde
 her long blonde tresses (Giusti 2006) Italian

(49) [DP D [TopicP Top [. . . N]]] (Giusti 1996, Fábregas 2011) Italian, Spanish

(50) [DP D [FocP Foc [. . . N]]] (Giusti 1996) Albanian, Russian

(51) [DP D [TopP Top [FocP Foc [. . . N]]]] (Giusti 1996) SC¹

NB: Giusti (2006) claims that NP can only have a Topic (which may be contrastive), but focus can only be checked in the clause. The structure for SC (and for DP in general) is revised as below; focused adjectives are suggested to be in situ. DP and dP are split

¹Cf. also Aboh (2004b) for Gungbe.

iff KonP is present. D realizes case, d realizes semantic number features (and selects for morphological Number features in Agr).

(52) [DP D [KonP* Kon [dP d [... N]]]] (Giusti 2006) SC

3 Case

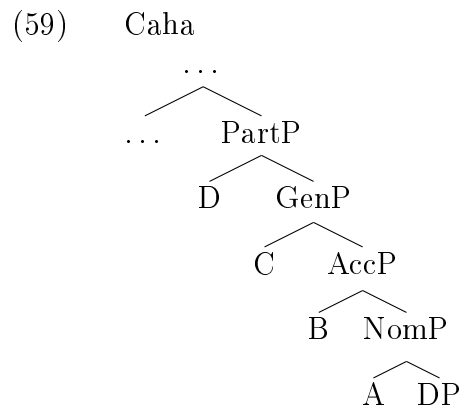
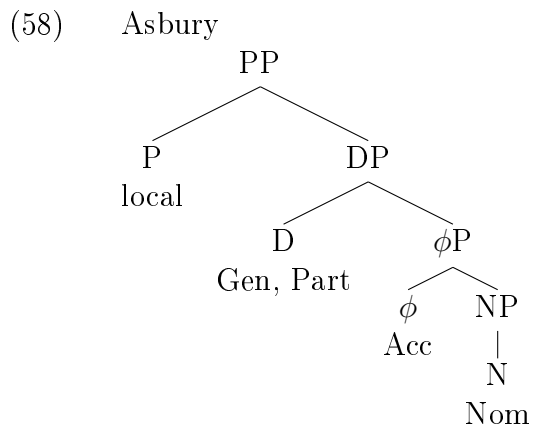
- abstract case (Case), proposed in Vergnaud (2008[1977]): regulates the distribution of overt DPs (but see Marantz 1991, McFadden 2004, Bobaljik 2008 that we don't need it, and Legate 2008 for the claim that we do)
- morphological case (case): determines morphological shape of argument DPs

Two big approaches

- in syntax
 - on a specialized functional head (highest in the noun phrase): Bittner & Hale (1996), Lamontagne & Travis (1987), Loebel (1994), recently Caha (2009)
 - as a feature on D: Giusti (1995)
- not in syntax: DM, starting with Halle & Marantz (1993), and including Marantz (1991), McFadden (2004), Bobaljik (2008), Sigurðsson (2009)

Converging evidence that 'case' is not a primitive

- growing featural complexity
 - (53) structural < inherent (Bejar & Massam 1999)
 - (54) Nom < Dat < Transl < Subl (Matushansky 2012)
 - (55) Nom < Acc < Gen < Abl < Dat (Assmann et al. 2014)
- growing amount of structure
 - (56) Nom < Acc < Gen/Part < Local cases (Asbury 2008)
 - (57) Nom < Acc < Gen < Part < Dat < Abl < Inst < Comit (Caha 2009)



Functional sequence so far:

- (60) **K** > D > (possessor) > '(relative clause) > Dem > Q > Num > Adj > Cl > Adj > (Dem?) > *n* > N

NB: for a radically different view on what case is, see Pesetsky (2013).

4 Personal pronouns

4.1 The amount of structure

4.1.1 Simple

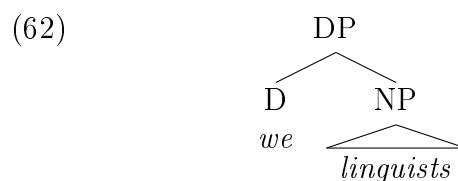
Abney (1987): pronouns are intransitive determiners.

But: We normally don't see functional projections surviving without a lexical complement.

4.1.2 Complex

Postal (1969): pronouns are Ds with a deleted complement; the complement may be overt in certain cases

- (61) a. we/us linguists
 b. you linguists
 c. %them/*they linguists

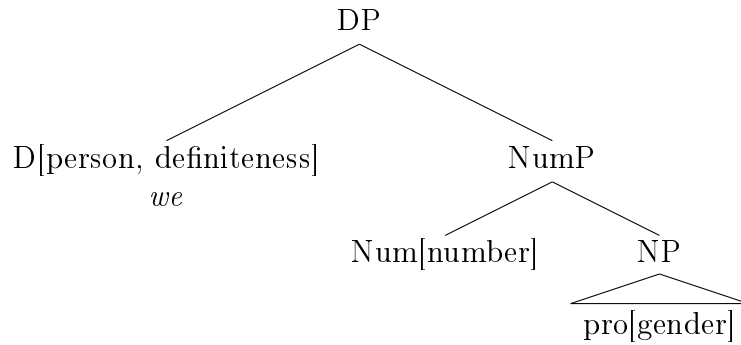


But:

- (63) a. *I linguist b. *you linguist c. *he/him linguist

Panagiotidis (2002): pronouns consist of an empty pro-form in N, plus a Num and D layer. This pro-form is also used in NP-ellipsis. An overt counterpart is English *one*.

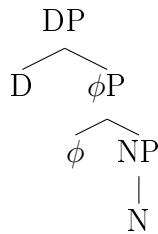
(64)



4.1.3 Subject to variation

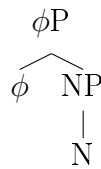
Déchaine & Wiltschko (2002): pronouns come in 3 sizes

(65) pro-DP



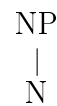
- D syntax
- argument
- definite semantics
- subject to Condition C
- English 1st and 2nd person pronouns

(66) pro-phiP



- neither D nor N syntax
- argument or predicate
- lack inherent semantics; spell out only phi-features
- subject to Condition B
- English 3rd person pronouns

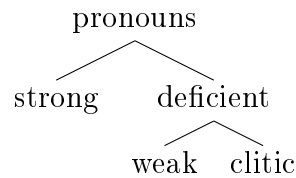
(67) pro-NP



- N syntax
- predicate
- semantically constants
- undefined wrt binding theory
- English *one*

Cardinaletti & Starke (1999): full/strong vs. weak vs. clitic pronouns

(68)



| (69) | property | strong | deficient |
|------|--|--------|-----------|
| | may be in a dislocated position | yes | no |
| | may be focused | yes | no |
| | may bear stress | yes | no |
| | may occur in isolation | yes | no |
| | modification by Adv modifying whole NP | yes | no |
| | my stay in its θ -position | yes | no |
| | modification by NP internal modifiers | no | no |
| | my be expletive | no | yes |
| | may have non-human reference | no | yes |
| | use in impersonal constructions | no | yes |

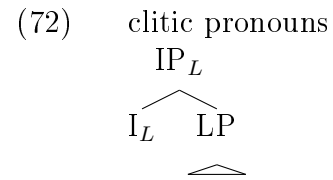
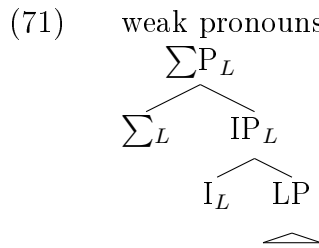
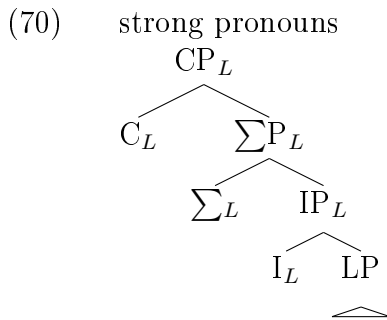
Structures:

C: nominal complementizer, case features and referential information

Σ : hosts prosody-related features of L (called FocP, AgrP, PolP)

I: cover term for a set of functional projections

L: lexical category



4.2 The structure and location of the person features

Feature matrix for persons

- 3rd: Person
- 2nd: Person, Participant
- 1st: Person, Participant, Speaker

3rd person

- is a person: Di Domenico (2004), Sigurðsson (2004), Bianchi (2006), among others
- is not a person: Benveniste (1971), Kayne (2000), Wechsler (2004), Vassilieva (2005), among others

Person features are

- in D: Abney (1987), Ritter (1995), Aboh (1998), Panagiotidis (2002), Aboh (2004a), Longobardi (2009), Danon (2011)
- above D, in PersP: Höhn (2015)

4.3 Singular vs. plural pronouns

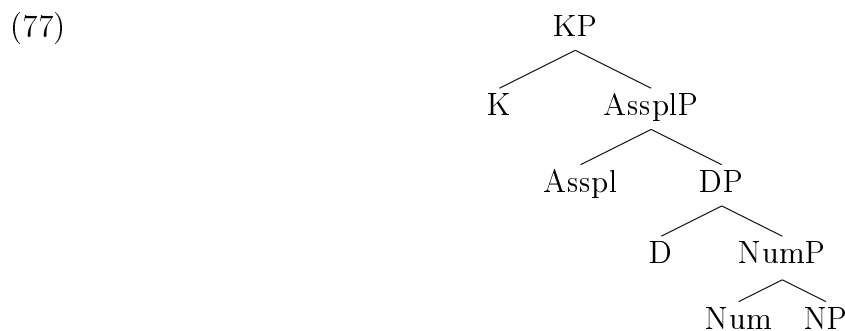
Regular (additive) vs. associative plurals for nouns:

- (73) a. János-ok
John-pl
Johns, two or more people named John
- b. János-ék
John-asspl
John and his associates/group / John and them Hungarian
- (74) Ahmet-ler
Ahmet-pl
Ahmets, two or more people name Ahmet
OR Ahmet's group/family/company (Görgülü 2011) Turkish

The associative plural is higher than the regular plural.

- (75) a. barát-a-i-d-ék-at
the friend-poss-pl-2sg-asspl-acc
your friends(acc) Hungarian
- (76) a. Abi-ler-im
brother-pl-1sg
my brothers
- b. Abi-m-ler
brother-1sg-pl
my brother and his family/associates/friends (Görgülü 2011) Turkish

Bartos (1999): Asspl normally occurs with definite noun phrases, so the associative plural is hosted in a head above D



Functional sequence so far:

- (78) K > **Asspl** > D > (possessor) > '(relative clause) > Dem > Q > Num > Adj > Cl > Adj > (Dem?) > n > N

Plural pronouns are associative plurals of their singular counterparts: Lyons (1968: ch. 7.2.2), Moravcsik (2003a;b), Cysouw (2003), Siewierska (2004: ch. 3.2.1), Bartos (1999: ch. 2.3.), Wechsler (2004), Bhat (2004), Vassilieva (2005), Wiltschko (2008), Kratzer (2009), Wechsler (2010), among others

(79) Vassilieva & Larson (2005)

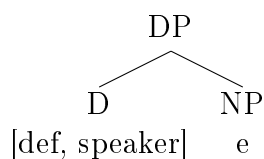
- a. $we = I + \Delta$
- b. $you(pl) = you(sg) + \Delta$
- c. $they = he/she/it + \Delta$

NB: *you(pl)* and *they* can also have additive plural readings (i.e. where the identity of the other people included in the group is known, that is, they can refer "not specified individual + unspecified group, but rather to a specified group" Vassilieva & Larson 2005: fn. 6).

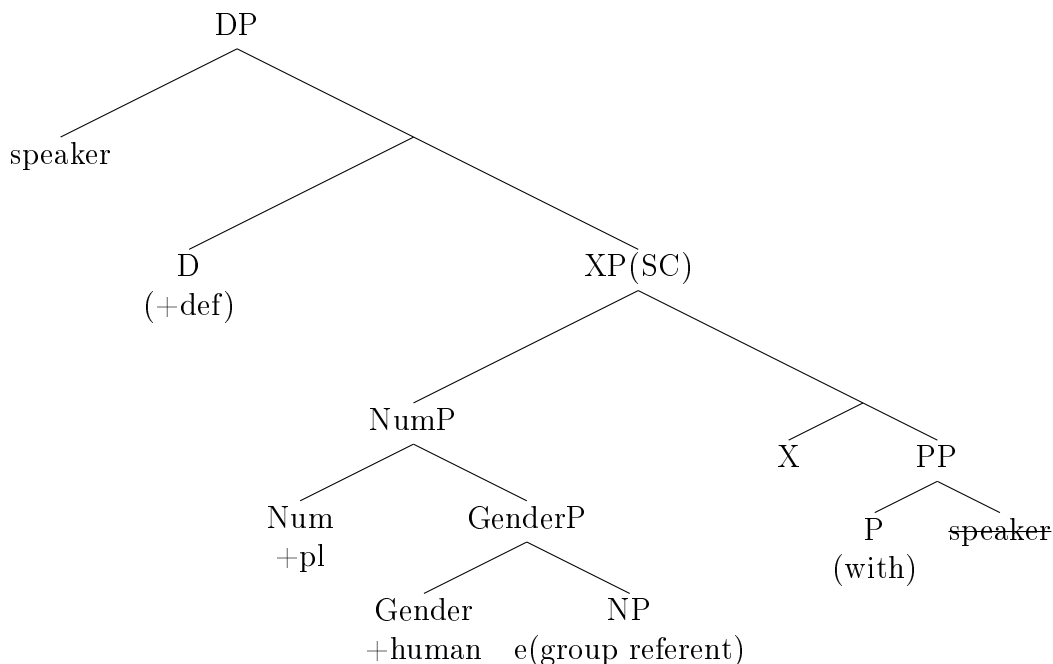
Some syntactic representations take this semantics seriously.

Vassilieva (2005)

(80) structure for *I*



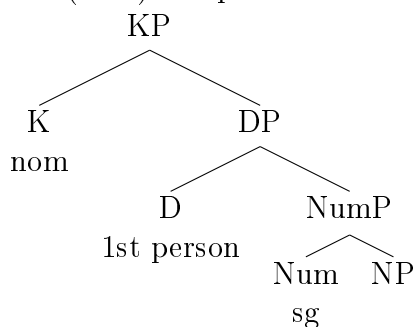
(81) structure for *we*



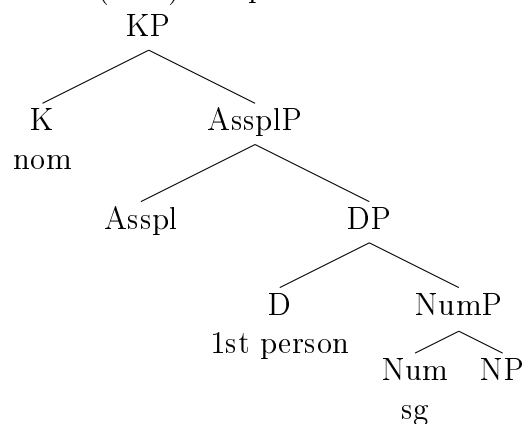
- the head of the phrase is a non-descriptive NP with group reference
- it is included in an SC, where the predicate is the PP [*with* [speaker]]
- the P *with* incorporates into X, then D (via head-movement)
- the person feature [speaker] is topicalized into spec, DP
- the +def index in D refers to the group as a whole, so it's present iff the others in the group are known

Dékány (2011)

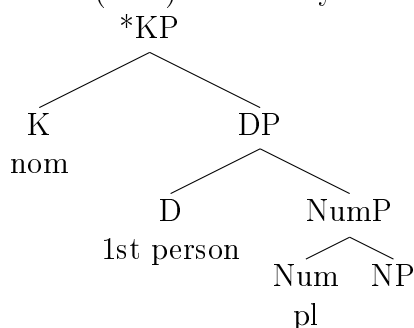
(82) *én* I(nom) is a portmanteau for



(83) *mi* we(nom) is a portmanteau for



(84) *mi* we(nom) is crucially not a portmanteau for



5 The debate about articleless languages

Do articleless languages have a DP layer?

- yes: Leko (1999), Rappaport (2000), Bašić (2004), Pereltsvaig (2007), Stanković (2014), Arsenijević (to appear), among others
- no: Corver (1990), Zlatić (1997), Bošković (2005; 2008; 2009), Despić (2011), Runić (2013), Boskovic & Sener (2014), among others

5.1 Left Branch Extraction

Ross' (1968): Left Branch Condition: blocks movement of the leftmost constituent of an NP (Bošković 2005: 2)

(85) Adjectival Left Branch Extraction (Adjectival LBE); Bošković (2005: exx. 1d and 2d)²

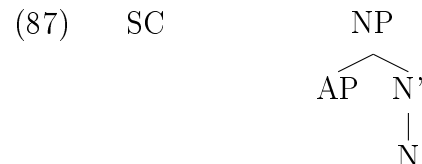
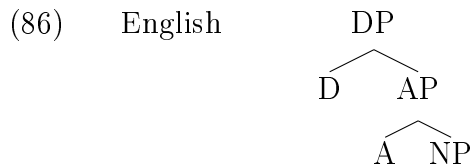
- | | | |
|----|--|---------|
| a. | *Beautiful _i he saw [t _i houses] | English |
| b. | Lijepe _i je vidio [t _i kuće]. | |
| | beautiful is seen houses | |
| | Beautiful houses, he saw. | SC |

²NB: LBE is also possible with possessors, demonstratives and wh-expressions in SC-type languages.

Bošković: English has DP, SC does not³

Analysis 1

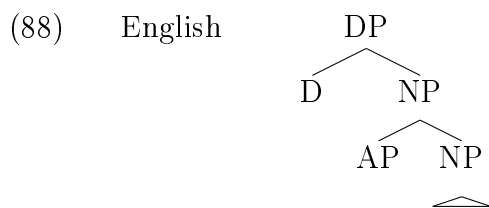
- AP-over-NP is default
- languages that have no D layer must go for NP-over-AP because AP cannot be an argument



- LBE is out in English because it's phrasal movement, and there is no phrase that contains A but not N
- LBE is OK in SC because there is a phrase that contains A but not N (it is spec, NP)

Analysis 2

- adjectives are NP-adjoined in both English and SC



- DP is a phase
- LBE is out in English because extraction out of DP must go via spec, DP, yet A cannot move here because movement has to cross a phrasal boundary (anti-locality)
- LBE is OK in SC because the D layer is not there

NB: demonstratives, quantifiers are possessors are morphologically As and have some freedom of word order in SC; they are treated as As syntactically, too.

5.2 Further differences between languages with and without articles

1. LBE: Only languages without articles may allow LB⁴
 (If you are an LBE language, you don't have articles)
 (*If you are an articleless language, you allow LBE)

³NB: this allows articleless languages to have functional projections other than D, cf. Bošković (2009).

⁴The generalizations could turn out to be strong tendencies, which would still call for an explanation. A weaker version of the claim made in the paper would be that some languages without articles do not have DP. The stronger (and more interesting) position is that this holds for all languages without articles.' (Bošković 2008: fn.1)

2. Adjunct extraction out of NP: Only languages without articles may allow adjunct extraction out of NPs

(If you allow adjunct extraction out of NPs, you don't have articles)
 (*If you don't have articles, you allow adjunct extraction out of NPs)

- (90) Iz kojeg grada_i je Petar sreo [djevojke t_i]?
 from which city is Peter met girls

SC

- (91) *Ot koj grad_i Petko sreštna [momičeta t_i]?
 from which city Petko met girls

Bulgarian

NB: the PIC-based analysis of LBE extends to adjunct extraction out of NP, the NP-over-AP analysis does not. The other generalizations require further assumptions: specific properties that govern the external distribution of noun phrases must be attributed to D.

3. Japanese-type scrambling: Only languages without articles may allow scrambling
 (If you are a scrambling language, you don't have articles)
 (*If you are an articleless language, you allow scrambling)

4. Negative raising from finite clauses: disallowed in languages without articles (where Negative raising is diagnosed by strict clause-mate NPIs in the embedded clause)
 (maybe: Languages without articles disallow NR, and languages with articles allow it)

- (92) a. John didn't believe [that Mary would leave [_{NPI} until tomorrow]]
 b. John doesn't believe [that Mary has visited her [_{NPI} in at least two years]]

5. Multiple wh-fronting (MWF) and superiority: MWF languages without articles don't show superiority effects (strict ordering of fronted wh-phrases)

- (93) SC
 a. Ko koga vidi?
 who whom sees
 Who sees whom?
 b. Koga ko vidi?
 whom so sees
 Who sees whom?

- (94) Bulgarian
 a. Koj kogo vižda?
 who whom sees
 Who sees whom?
 b. *Kogo koj vižda?
 whom who sees
 Who sees whom?

6. clitic doubling: Only languages with articles may allow clitic doubling
 (If you are a clitic doubling language, you have articles)
 (If you are an articleless language, you don't have clitic doubling)
 (*If you have articles, you have clitic doubling)

7. Adnominal genitive: Languages without articles don't allow transitive nominals with two genitives (where the genitive is realized via a clitic/suffix or a dummy P)⁵
 (If you don't have articles, you don't allow two genitive arguments.)
 (If you have two genitive arguments, you have articles.)
 (*If you have articles, you allow two genitive arguments.)

(95) Hannibals Eroberung Roms
 Hannibal.gen conquest Rome.gen
 Hannibal's conquest of Rome German

(96) *podbicie Rzymu Hannibala
 conquest Rome.gen Hannibal.gen
 Hannibal's conquest of Rome Polish⁶

8. Majority superlative reading of MOST: Only languages with articles allow the majority superlative reading
 (If you allow the majority reading, you have articles)

(97) Most people drink beer.
 a. majority reading: more than half the people drink beer
 b. plurality reading: more people drink beer than any other drink though it could be less than half the people

9. Head-internal relative clauses (HIRC or IHRC or IHR): island sensitive in languages without articles, but not island sensitive in languages with articles (HIRC: a relative clause whose head noun phrase occurs within the relative clause itself.)

(98) externally headed relative clause, Japanese
 Yoko-wa [[_{RC} Taro-ga sara-no ue-ni ∅ oita] keeki]-o tabeta
 Yoko-TOP Taro-NOM plate-GEN on-LOC put cake-ACC ate
 Yoko ate a piece of cake which Taro put on a plate.

(99) internally headed relative clause, Japanese
 Yoko-wa [_{RC} [Taro-ga sara-no ue-ni keeki-o oita]-no]-o
 Yoko-TOP Taro-NOM plate-GEN on-LOC cake-ACC put-NM-ACC
 tabeta
 ate
 Yoko ate a piece of cake which Taro put on a plate (Lit. 'Yoko ate [Taro put cake on a plate].) (Shimoyama 1999: ex. 1 and 2)

10. Polysynthesis: Polysynthetic languages do not have articles
 (If you are a polysynthetic language, you don't have articles)
 (*If you don't have articles, you are a polysynthetic language)

⁵NB: this says nothing about possessives.

⁶In the grammatical version the external argument is introduced by an oblique case or a P analogous to English *by*.

6 Deriving word order within the DP

Typologists have repeatedly looked at the relative order of demonstratives, numerals, adjectives, and the noun.

Greenberg (1963):

- before the noun: Dem > Num > A > N
- after the noun: N > Dem > Num > A and N > A > Num > Dem

Refined by Hawkins (1983): more post-head orders are possible, no predictions are made in this case (but the most frequent is the mirror of the pre-head order)

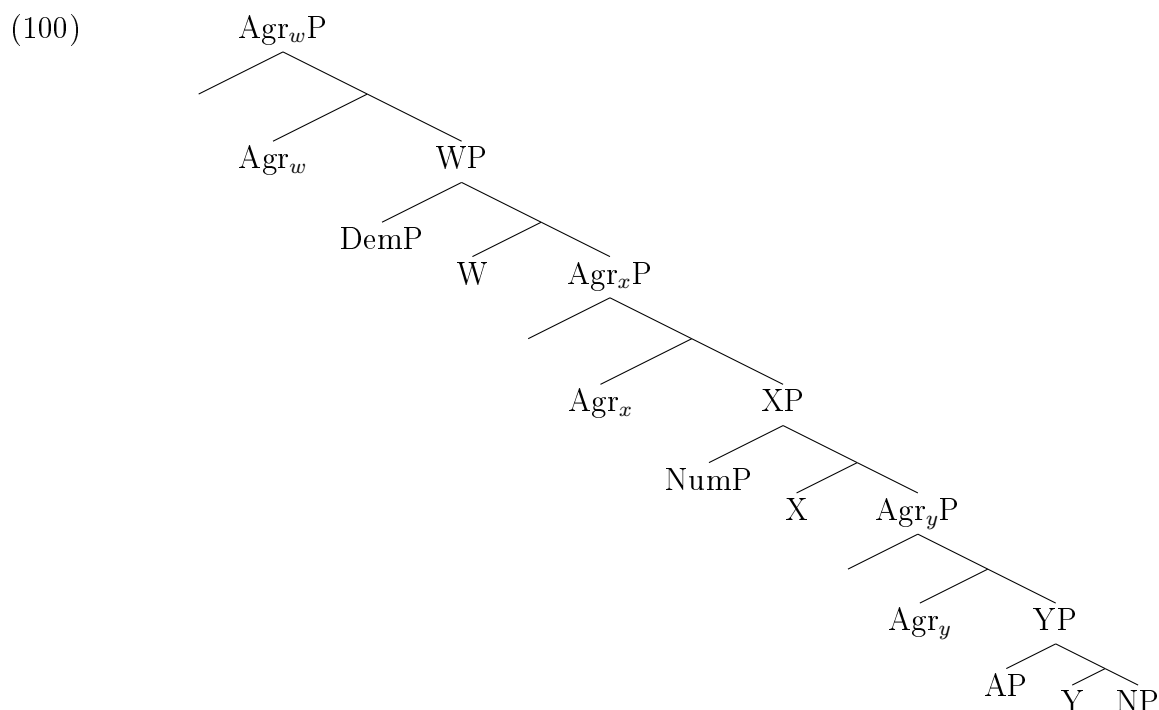
Cinque (2005): among post-head orders, N > Dem > Num > A and N > A > Num > Dem are the most common; other order are also attested, but not everything goes. Out of 24 possible orders, 14 are attested.

6.1 Cinque (2005)

Assumptions about grammatical architecture

- antisymmetry (i.e. only head-first structures and no right specifiers leading to a universal spec-head-complement order)
- linearization by LCA

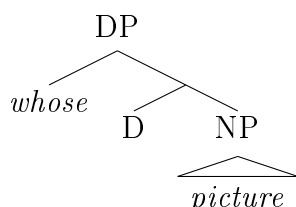
Assumptions about DP structure



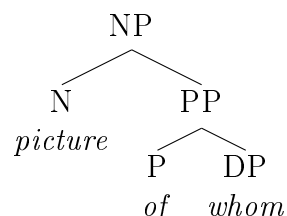
Constraints on movement

- movement is only upwards (to a c-commanding position)
- any phrase that moves must contain the NP; no head movement
- pied-piping: *picture of who* or *whose picture* type

(101) *whose picture* type



(102) *picture of who* type



Markedness of movement

- what moves
 - unmarked: no movement, NP movement with *whose picture* type of pied-piping
 - marked: NP movement without pied-piping
 - more marked still: NP movement with *picture of who* type of pied-piping
- how high it moves
 - unmarked: total movement (NP rises all the way up)
 - marked: partial movement

Some examples

(103) base-generated
Dem Num A N : no movement

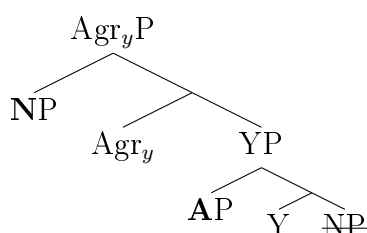
(104) N(P) movement without pied-piping

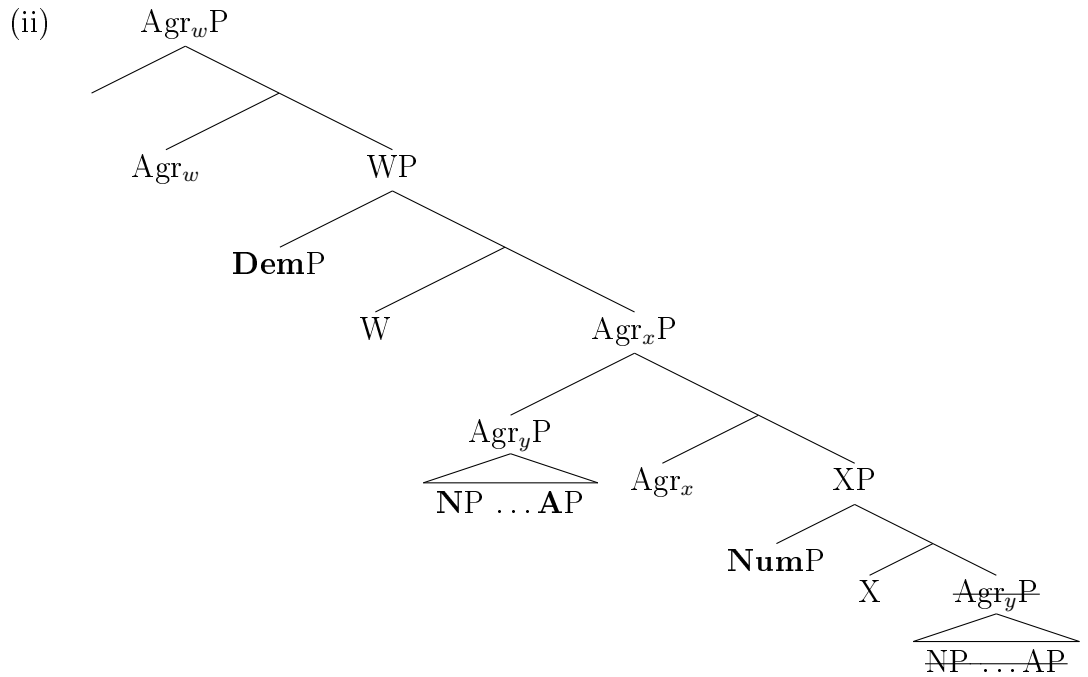
- Dem Num N A: N moves around A
- Dem N Num A: N moves around A and Num without pied-piping
- N Dem Num A: N movement to the top without pied-piping

(105) N(P) movement with *whose picture* type of pied-piping

- Dem N A Num: (104-a) plus [N A] around Num (*whose picture* type of pied-piping of A)

(i)

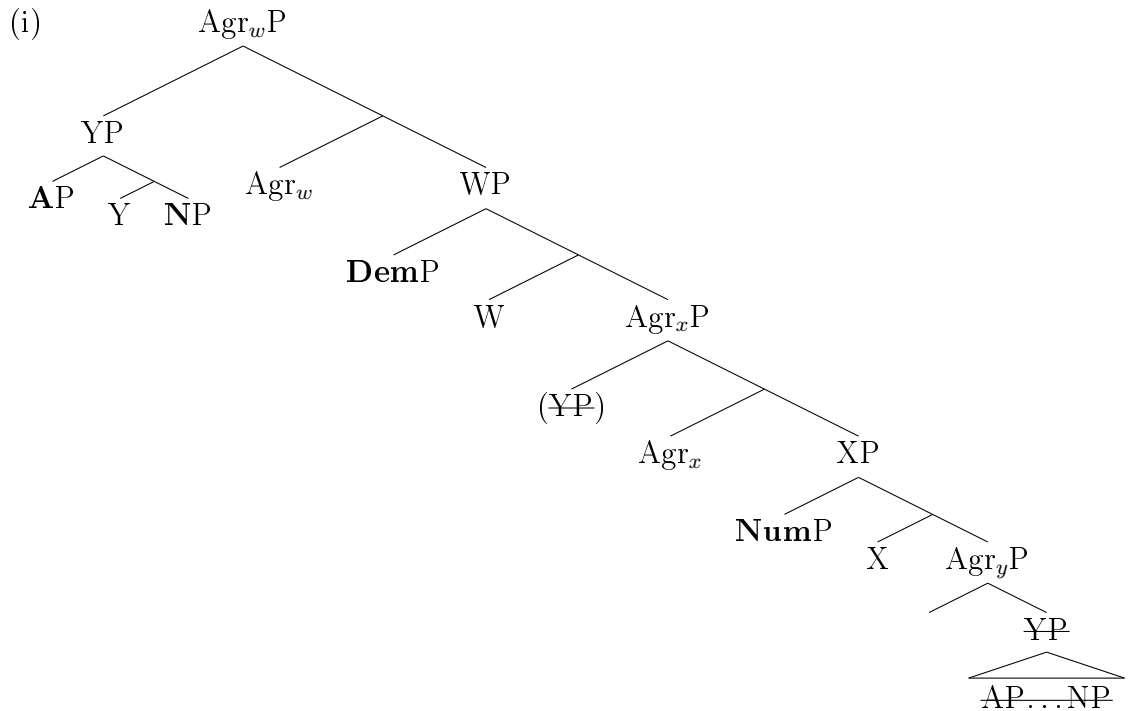




- b. N A Dem Num: (105-a) plus moving [N A] around Dem without pied-piping Num
- c. N A Num Dem: (105-a) plus moving [N A Num] around Dem (*whose picture* type of pied-piping of Num by [N A])

(106) N(P) movement with *picture of who* type pied-piping

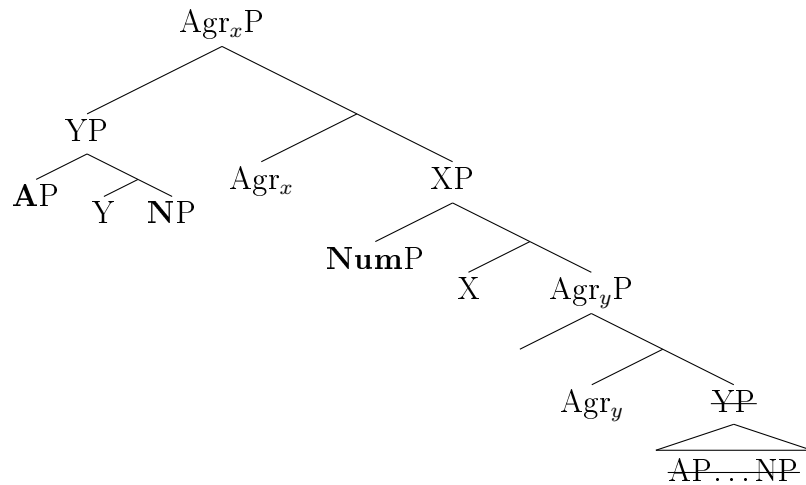
- a. A N Dem Num: [A N] moves around both Num and Dem (*picture of who* type pied-piping of A by N)



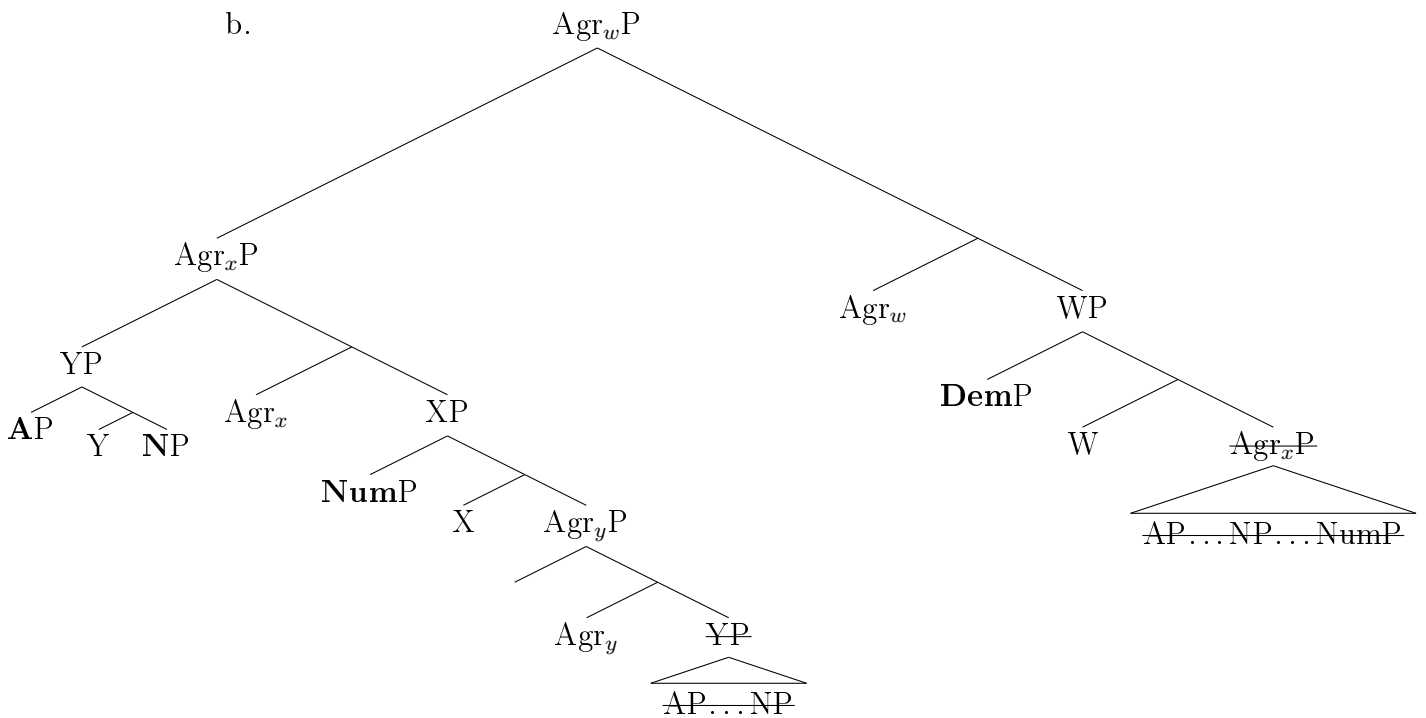
(107) N(P) movement with both *picture of who* and *whose picture* type pied-piping
 A N Num Dem: [A N] moves around Num (*picture of who* type pied-piping of

A by N), plus [A N Num] around Dem (*whose picture* type of pied-piping of Num by [A N])

a.



b.



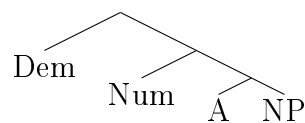
6.2 Abels & Neeleman (2009)

Assumptions about grammatical architecture

- no antisymmetry; complements can be generated to the right or to the left

Assumptions about DP structure

(108)

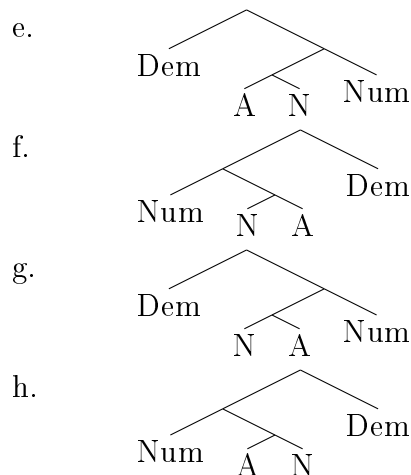
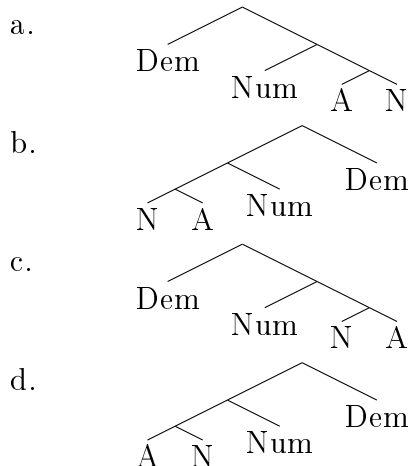


Constraints on movement

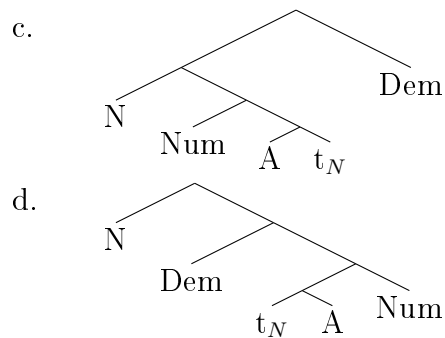
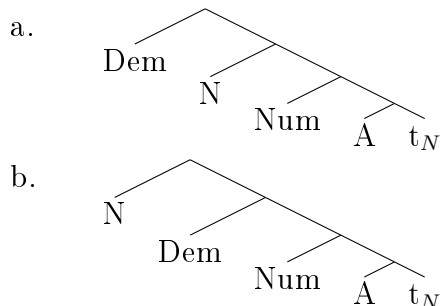
- movement is only upwards (to a c-commanding position)
- any phrase that moves must contain the N(P)
- all movements are to the left

Derivations

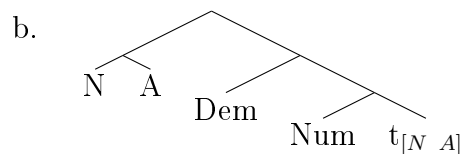
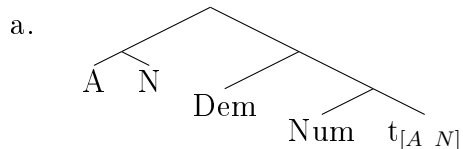
(109) base-generated



(110) N(P) movement without pied-piping



(111) NP movement with pied-piping



References

- Abels, Klaus & Ad Neeleman. 2009. Universal 20 without the LCA. In José M. Brucart, Anna Gavarró & Jaume Solà (eds.), *Merging features: computation, interpretation, and acquisition*, 60–79. Oxford: Oxford University Press.
- Abney, Steven. 1987. *The English Noun Phrase in its Sentential Aspect*: Massachusetts Institute of Technology dissertation.
- Aboh, Enoch O. 1998. On the syntax of Gungbe noun phrases. *GenGenP* 6. 1–28.

- Aboh, Enoch O. 2004a. *The morphosyntax of complement-head sequences: Clause structure and word order patterns in Kwa* Oxford studies in comparative syntax. New York: Oxford University Press.
- Aboh, Enoch O. 2004b. Topic and focus within D. *Linguistics in the Netherlands* 21. 1–12.
- Alexiadou, Artemis, Liliane Haegeman & Melita Stavrou. 2007. *Noun Phrase in the Generative Perspective*. Berlin: Mouton de Gruyter.
- Arsenijević, Boban. to appear. Atypical demonstratives in an articleless language. In Eefje Boef, Marco Coniglio, Eva Schlachter & Tonjes Veenstra (eds.), *Demonstratives: syntax, semantics and typology*, Mouton de Gruyter.
- Asbury, Anna. 2008. *The Morphosyntax of Case and Adpositions*: University of Utrecht dissertation.
- Assmann, Anke, Svetlana Edygarova, Doreen Georgi, Timo Klein & Philipp Weisser. 2014. Case stacking below the surface: On the possessor case alternation in Udmurt. *The Linguistic Review* 31(3–4). 447–485.
- Bartos, Huba. 1999. *Morfoszintaxis és interpretáció. A magyar inflexiók jelenségek szintaktikai háttere. [Morphosyntax and interpretation. The syntactic background of Hungarian inflexional phenomena]*. Budapest: Eötvös University dissertation.
- Bašić, Monika. 2004. *Nominal subextractions and the structure of nps in serbian and eng-lish*: University of Tromsø, CASTL MA thesis.
- Bejar, Susana & Diane Massam. 1999. Multiple case checking. *Syntax* 2(2). 65–79.
- Benveniste, Émile. 1971. *Problems in general linguistics*. Miami: University of Miami Press.
- Bernstein, Judy B. 1997. Demonstratives and reinforcers in Romance and Germanic languages. *Lingua* 102. 87–113.
- Bhat, D. N. S. 2004. *Pronouns* Oxford studies in typology and linguistic theory. New York: Oxford University Press.
- Bianchi, Valentina. 2006. On the syntax of personal arguments. *Lingua* 116. 2023–2067.
- Bittner, Maria & Ken Hale. 1996. The structural determination of Case and Agreement. *Linguistic Inquiry* 27(1). 1–68.
- Bobaljik, Jonathan David. 2008. Where’s Phi? Agreement as a postsyntactic operation. In Daniel Harbour, David Adger & Susana Béjar (eds.), *Phi theory. Phi-features across modules and interfaces* Oxford studies in theoretical linguistics 16, 295–328. New York: Oxford University Press.
- Boskovic, Zeljko & Serkan Sener. 2014. The Turkish NP. In Patricia Cabredo Hofherr & Anne Zribi-Hertz (eds.), *Crosslinguistic studies on nominal reference: With and without articles*, 102–140. Leiden: Brill.
- Bošković, Željko. 2005. On the locality of left-branch extraction and the structure of the NP. *Studia Linguistica* 59. 1–45.
- Bošković, Željko. 2008. What will you have, DP or NP? In Emily Elfner & Martin Walkow (eds.), *Proceedings of nels 37*, vol. 1, 101–114. GLSA.
- Bošković, Željko. 2009. More on the no-DP analysis of article-less languages. *Studia Linguistica* 63(2). 187–203.
- Brugè, Laura. 2002. The positions of demonstratives in the extended nominal projection. In Guglielmo Cinque (ed.), *Functional structure in DP and IP*, 15–53. Oxford: Oxford University Press.
- Caha, Pavel. 2009. *The Nanosyntax of Case*: University of Tromsø, CASTL dissertation.
- Cardinaletti, Anna & Michal Starke. 1999. The typology of structural deficiency: A case

- study of three classes of pronouns. In Henk C. Riemsdijk (ed.), *Clitics in the languages of Europe* Empirical Approaches to Language Typology 20–5, 145–233. Berlin and New York: Mouton de Gruyter.
- Cinque, Guglielmo. 2005. Deriving Greenberg’s Universal 20 and its exceptions. *Linguistic Inquiry* 36(3). 315–332. doi:10.1162/0024389054396917.
- Corver, Norbert. 1990. *The syntax of left branch extractions*: Tilburg University dissertation.
- Cysouw, Michael. 2003. *The paradigmatic structure of person marking* Oxford studies in typology and linguistic theory. Oxford: Oxford University Press.
- Danon, Gabi. 2011. Agreement and DP-internal feature distribution. *Syntax* 14(4). 297–317.
- Déchainé, Rose-Marie & Martina Wiltschko. 2002. Decomposing pronouns. *Linguistic Inquiry* 33(3). 409–442.
- Dékány, Éva. 2011. *A profile of the Hungarian DP. The interaction of lexicalization, agreement and linearization with the functional sequence*. Tromsø: University of Tromsø dissertation.
- Despić, Miloje. 2011. *Syntax in the absence of Determiner Phrase*: University of Connecticut dissertation.
- Devine, Andrew M. & Laurence D. Stephens. 2006. *Latin word order. structured meaning and information*. Oxford: Oxford University Press.
- Di Domenico, Elisa. 2004. Placed, non-placed and anaphorically placed expressions. *Italian Journal of Linguistics* 16(1).
- Diessel, Holger. 1999. *Demonstratives: Form, function and grammaticalization*. Amsterdam: John Benjamins.
- Dryer, Matthew S. 2005. Order of demonstrative and noun. In Martin Haspelmath, Matthew S. Dryer, David Gil & Bernard Comrie (eds.), *The world atlas of language structures*, chap. 88, 358–361. Oxford: Oxford University Press.
- Ezcurdia, Maite. 1996. Sum: Demonstratives. Post on Linguist List 7.111, 25 January 1996. <http://linguistlist.org/issues/7/7-111.html>.
- Fábregas, Antonio. 2011. Rising possessors in Spanish. *Iberia* 3(1). 1–34.
- Franks, Steven. 1994. Parametric properties of numeral phrases in Slavic. *Natural Language and Linguistic Theory* 12. 597–674.
- Giusti, Giuliana. 1995. A unified structural representation of (abstract) case and article. In Hubert Haider, Susan Olsen & Sten Vikner (eds.), *Studies in comparative Germanic syntax* Studies in Natural Language and Linguistic Theory, 77–93. Springer.
- Giusti, Giuliana. 1996. Is there a FocusP and a TopicP in Noun Phrase structure? *University of Venice Working Papers in Linguistics* 6(2). 105–128.
- Giusti, Giuliana. 1997. The categorial status of determiners. In Liliane Haegeman (ed.), *The new comparative syntax* Longman Linguistics Library, 95–123. London and New York: Longman.
- Giusti, Giuliana. 2005. At the left periphery of the Romanian Noun Phrase. In Martine Coene & Liliane Tasmowski (eds.), *On space and time in language*, 23–49. Cluj: Clusium.
- Giusti, Giuliana. 2006. Parallels in clausal and nominal periphery. In Mara Frascarelli (ed.), *Phases of interpretation*, 163–184. Berlin: Mouton de Gruyter.
- Giusti, Giuliana & Rossella Iovino. 2011. Evidence for split DP in Latin. *University of Venice Working Papers in Linguistics* 21. 111–129.
- Giusti, Giuliana & Rossella Iovino. 2016. Latin as a split-DP language. *Studia Linguistica*

1–29.

- Görgülü, Emrah. 2011. Plural marking in Turkish: additive or associative? *Working papers of the linguistics circle of the University of Victoria* 21. 70–80.
- Greenberg, Joseph H. 1963. Some universals of grammar with particular reference to the order of meaningful elements. In Joseph H. Greenberg (ed.), *Universals of language: Report of a conference held at Dobbs Ferry, New York, April 13–15 1961*, 73–113. Cambridge, MA: MIT Press 2nd edn.
- Grohman, Kleantes K. & Phoevos Panagiotidis. 2005. An anti-locality approach to Greek demonstratives. In *Contributions to the thirtieth Incontro di Grammatica Generativa*, 243–263. Venice: Università Ca' Foscari Venezia, Department of Language Sciences.
- Guardiano, Christina. 2009. The syntax of demonstratives. A parametric analysis. Slides of a talk delivered at the 19th Colloquium on Generative Grammar, Vitoria, April 2009.
- Halle, Moris & Alec Marantz. 1993. Distributed morphology and the pieces of inflection. In Ken Hale & Samuel Jay Keyser (eds.), *The view from building 20: Essays in linguistics in honor of Sylvain Bromberger*, 111–176. Cambridge, MA: MIT Press.
- Hawkins, J. A. 1983. *Word order universals*. New York: Academic Press.
- Höhn, Georg G. K. 2015. Unagreement is an illusion. *Natural Language and Linguistic Theory* 34(2). 543–592.
- Ihsane, Tabea & Genoveva Puskás. 2001. Specific is not definite. *Generative Grammar in Geneva* 2. 39–54.
- Kayne, Richard S. 2000. Person morphemes and reflexives in Italian, French, and related languages. In Richard S. Kayne (ed.), *Parameters and Universals*, 131–162. Oxford and New York: Oxford University Press.
- Knittel, Marie-Laurence. 1998. La structure morphosyntaxique des syntagmes nominaux possessivisés du hongrois. In Jacqueline Guéron & Anne Zribi-Hertz (eds.), *La grammairie de la possession*, 83–128. Nanterre: Publidix.
- Kratzer, Angelika. 2009. Making a pronoun: Fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry* 40(2). 187–237.
- Lamontagne, Greg & Lisa Travis. 1987. The syntax of adjacency. In Megan Crowhurst (ed.), *Proceedings of the West Coast Conference on Formal Linguistics*, vol. 6, 173–186. Stanford, CA: Stanford Linguistics Association.
- Legate, Julie Anne. 2008. Morphological and abstract case. *Linguistic Inquiry* 39(1). 55–101.
- Leko, Nedžad. 1999. Functional categories and the structure of the DP in Bosnian. In Mila Dimitrova-Vulchanova & Lars Hellan (eds.), *Topics in South Slavic syntax and semantics*, 229–252. Amsterdam: John Benjamins.
- Leu, Thomas. 2008. *The internal syntax of determiners*: New York University dissertation.
- Loebel, Elisabeth. 1994. Kp/dp syntax: interaction of case-marking with referential and nominal features. *Theoretical Linguistics* 20. 38–70.
- Lohndal, Terje. 2007. On the structure and development of nominal phrases in Norwegian. In Elisabeth Stark, Elisabeth Leiss & Werner Abraham (eds.), *Nominal determination: Typology, context constraints, and historical emergence* Studies in language companion series 89, 285–308. Amsterdam and Philadelphia: John Benjamins.
- Longobardi, Giuseppe. 2009. Reference to individuals, person, and the variety of mapping parameters. In Henrik Høeg Müller & Alex Klinge (eds.), *Essays on nominal determination* Studies in language companion series 99, 189–211. Amsterdam and Philadelphia: John Benjamins.

- Lyons, John. 1968. *Introduction to theoretical linguistics*. London: Cambridge University Press 1971st edn.
- Marantz, Alec. 1991. Case and licensing. In German F. Westphal, Benjamin Ao & Hee-Rahk Chae (eds.), *Proceedings of ESCOL 91*, 11–29. Ithaca, NY: Cornell Linguistics Club.
- Matushansky, Ora. 2012. On the internal structure of case in Finno-Ugric small clauses. *Finno-Ugric languages and linguistics* 1(1–2). 3–43.
- McFadden, Thomas. 2004. *The location of case in the derivation: A study on the syntax-morphology interface*: University of Pennsylvania dissertation.
- Moravcsik, Edith. 2003a. Inflectional morphology in the Hungarian Noun Phrase: A typological assessment. In Frans Plank (ed.), *Noun Phrase structure in the languages of Europe*, 113–252. Berlin, New York: Mouton de Gruyter.
- Moravcsik, Edith. 2003b. A semantic analysis of associative plurals. *Studies in Language* 27(3). 469–503.
- Panagiotidis, Phoevos. 2000. Demonstrative determiners and operators: the case of Greek. *Lingua* 110(10). 717–742.
- Panagiotidis, Phoevos. 2002. *Pronouns, clitics and empty nouns: Pronominality and licensing in syntax*. Amsterdam and Philadelphia: John Benjamins.
- Pereltsvaig, Asya. 2007. On the universality of DP: A view from Russian. *Studia Linguistica* 61(1). 59–94.
- Pesetsky, David. 2013. *Russian case morphology and the syntactic categories* Linguistic Inquiry Monographs. Cambridge, MA: MIT Press.
- Plank, Frans. 1992. Possessives and the distinction between determiners and modifiers (with special reference to German). *Journal of Linguistics* 28(2). 453–468.
- Postal, Paul. 1969. On so-called "pronouns" in English. In David A. Reibel & Sandord A. Schane (eds.), *Modern studies in English*, 201–224. Englewood, NJ: Prentice-Hall.
- Rappaport, Gilbert C. 2000. Extraction from Nominal Phrases in Polish and the theory of determiners. *Journal of Slavic Linguistics* 8(3). 159–198.
- Rijkhoff, Jan. 2002. *The Noun Phrase*. Oxford: Oxford University Press.
- Ritter, Elizabeth. 1995. On the syntactic category of pronouns and agreement. *Natural Language and Linguistic Theory* 13(3). 405–443.
- Roberts, Ian. 2011. Demonstratives as the external argument of n. Talk delivered at the 21st Colloquium on Generative Grammar, Sevilla, April 2011.
- Roehrs, Dorian. 2010. Demonstrative-reinforcer constructions. *Journal of Comparative Germanic Linguistics* 13(3). 225–268.
- Rosen, Nicole. 2003. Demonstrative position in Michif. *Canadian Journal of Linguistics* 48(1/2). 39–69.
- Ross, John Robert. 1968. *Constraints on variables in syntax*. Bloomington, Indiana: Indiana University Linguistics Club.
- Runić, Jelena. 2013. Cliticization phenomena in languages 'on the border'. *University of Pennsylvania Working Papers in Linguistics* 19(1). Article 21.
- Shimoyama, Junko. 1999. Internally headed relative clauses in Japanese and E-type anaphora. *Journal of East Asian Linguistics* 8. 147–182.
- Shlonsky, Ur. 2004. The form of Semitic noun phrases. *Lingua* 114(12). 1465–1526. doi:10.1016/j.lingua.2003.09.019.
- Siewierska, Anna. 2004. *Person* Cambridge Textbooks in Linguistics. Cambridge: Cambridge University Press.
- Sigurðsson, H. Ármann. 2004. The syntax of person, tense, and speech features. *Italian*

- Journal of Linguistics* 16. 219–151.
- Sigurðsson, H. Ármann. 2009. The no case generalization. In Artemis Alexiadou, Jorge Hankamer and Thomas McFadden, Justin Nuger & Florian Schäfer (eds.), *Advances in comparative germanic syntax*, 249–279. Amsterdam and Philadelphia: John Benjamins.
- Stanković, Branimir. 2014. Arguments for a DP analysis of Serbo-Croatian nominal expressions. In Ludmila Veselovská & Markéta Janebová (eds.), *Nominal structures: all in complex DPs*, 29–47. Olomouc: Palacký University.
- Vassilieva, Maria. 2005. *Associative and pronominal plurality*: SUNY Stony Brook dissertation. <http://www.linguistics.stonybrook.edu/files/Vassilieva2005.pdf>.
- Vassilieva, Maria & Richard K. Larson. 2005. The semantics of the plural pronoun construction. *Natural Language Semantics* 13. 101–124.
- Vergnaud, Jean-Roger. 2008[1977]. Personal letter to Howard Lasnik and Noam Chomsky. In Robert Freidin, Carlos P. Otero & Maria Luisa Zubizarreta (eds.), *Foundational issues in linguistic theory: essays in honor of Jean-Roger Vergnaud* Current Studies in Linguistics, 3–15. Cambridge, MA: MIT Press.
- Wechsler, Stephen. 2004. Number as person. In Olivier Bonami & Patricia Cabredo Hofherr (eds.), *Empirical issues in syntax and semantics 5*, 255–274.
- Wechsler, Stephen. 2010. What ‘you’ and ‘I’ mean to each other: Person indexicals, self-ascription, and theory of mind. *Language* 86(2). 332–365.
- Wiltschko, Martina. 2008. The syntax of non-inflectional plural marking. *Natural Language and Linguistic Theory* 26. 639–694.
- Zlatić, Larisa. 1997. *The structure of the serbian noun phrase the structure of the serbian noun phrase*: University of Texas, Austin dissertation.