

University of Leipzig, Department of Linguistics
WS2016/17 – Tue 11–13 – H1 5.16 – module 04-046-2015/IGRA08
Syntax of the noun phrase

Martin Salzmann – martin.salzmann@uni-leipzig.de
 www.martinsalzmann.com/teaching.htm#2016-17NP

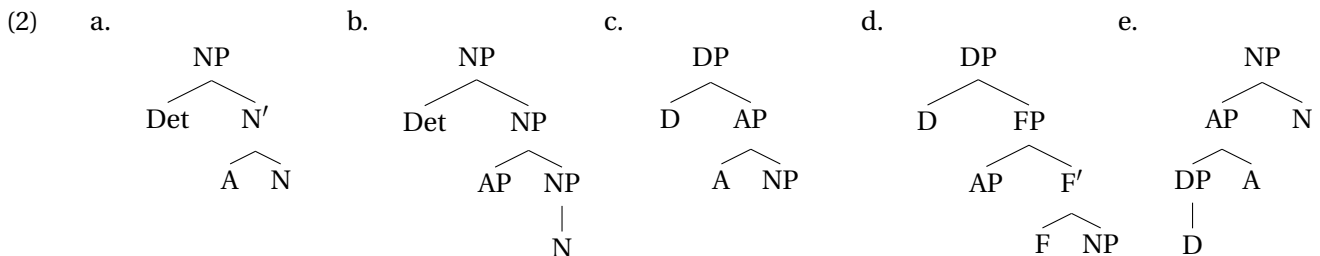
Introduction

1 Basic issues

1.1 Categories, constituency and the nature of the head

- (1) a. der große Mann
 the.M.NOM tall.M.NOM man
 'the tall man'

- How do we know that *der* and *große* belong to different categories? → inflection; cf. BCS
- what are the analytical possibilities w.r.t. constituency?
 - what is the head of the entire phrase? D, A or N?
 - is the structure left- or right-branching?
 - what is the relationship between A and N? AP over NP or NP over AP?
 - if NP over AP, is the AP a specifier of or an adjunct to N(P)?
 - if AP over NP, does A take the NP as its complement or is A located in the specifier of some functional head above NP?



- What are possible constituency tests?
 - movement

- (3) a. *Grosse₁ ist der ___₁ Mann angekommen.
 tall.M.SG be.3SG the.M.SG man arrive.PTCP
 'The tall man has arrived.'
 b. Lijepe₁ je vidio ___₁ kuće
 beautiful is seen houses
 'Beautiful houses, he saw.'

Serbo-Croatian

- (4) Linguisten₁ kenn ich nur beknackte ___₁.
 linguist.PL.ACC know.1SG I only wicked.PL.ACC
 'I only know wicked linguists.'

- * can D move to the exclusion of A+N?
- * can A+N move to the exclusion of D?
- * can D+A move to the exclusion of N?
- * can you extract constituents of A/N (suggesting complement status of AP/NP)?

– ellipsis

- (5) Der alte Mann ist nicht angekommen, aber der
 the.M.NOM old.M.NOM man be.3SG not arrive.PTCP but the.M.NOM
 grosse ~~Mann~~ ist schon angekommen.
 tall.M.NOM man be.3SG PRT arrive.PTCP
 ‘The old man has not arrived, but the tall one has arrived.’

* English: NP-ellipsis, but not after A (but cf. German: the reverse)

- (6) I like books, but not John's ~~books~~, only old *(ones)

– coordination

- (7) a. the [[great musician] and [gifted conductor]] → N'-coordination, AP-coordination,
 NP-/FP-coordination → A+N form a constituent to the exclusion of D
 b. the new [[friend] and [husband of my first love]] → N(P)-coordination, F'-
 coordination
 c. the [[old friend] and [husband of my first love]] → argues for NP over AP and
 against AP over NP
 d. the [(very) old and (really) tired] man → argues for NP over AP (unless RNR)

• How can we determine the head of the phrase? What are possible criteria?

- obligatoriness: rules out A, but leaves N and D; what about bare nouns?
- head determines the external distribution of the phrase (+/- argument positions)
- selected by external selector (V, P): animacy: *Colorless green ideas sleep furiously*
- only the head bears features selected/assigned from outside (cf. C: [+/- wh])
 - * German: Case is largely restricted to D-elements; dialects usually don't inflect Ns anymore (no genitive sg, no dative pl); but could simply be a fact about morphology, nothing deep
 - * definiteness? are there any verbs/prepositions selecting only definite/indefinite NPs?
- the head selects the non-head: Are there any nouns that select a determiner of a certain kind or determiners that select nouns of a certain type (cf. count vs. mass nouns)?
- the head determines features of other members of the noun phrase (but c-command is often sufficient)
 - * adjectival inflection in German: shape of D determines strong/weak inflection
 - * genitive of quantification:

- (8) Pjat' devušek rabotali/rabotalo tam
 five girls.GEN worked.PL/worked.SG there
 ‘Five girls worked there’

Russian

- semantics: scope: D applies the the set that results from intersecting the predicates A and N; also: *the first rainy day, neue umweltschonende Verfahren*; but c-command is arguably sufficient
 - its presence/absence affects extraction, cf. *that*-trace effect → LBE-asymmetry
 - the highest head-position, i.e. the head that is the target of movement: *Gianni mio*, status constructus, word order (post-verbal adjectives)
- what about the relationship between A and NP?
 - are there any selectional relationships?
 - adjectives are optional
 - adjectives can be stacked: *the big old red car*

2 NP or DP?

- basic reading:
 - the original: Abney (1987)
 - overviews: Bernstein (2001), Longobardi (2001), Coene and d’Hulst (2003), Alexiadou et al. (2007), Bruening (2009), Punske (2014)

2.1 Theory-internal/parallelism arguments

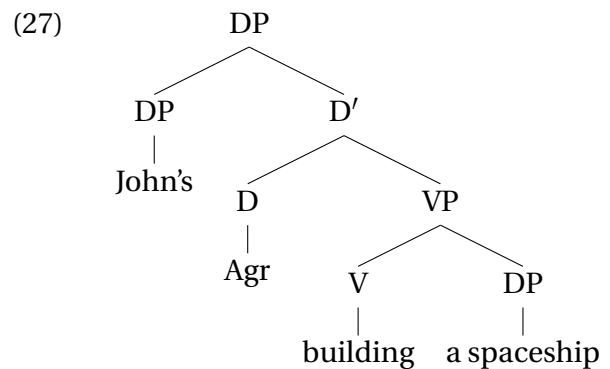
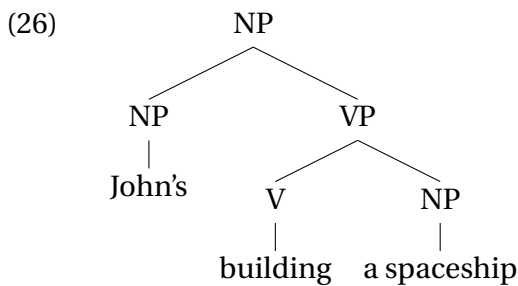
- since verbs project functional structure we would expect nouns to do the same
- under the NP-hypothesis, D would be the only element that does not project by taking arguments
 - No longer an issue under Bare Phrase Structure (Chomsky 1995), where heads that don’t take complements/specifiers simply don’t project them
- GB-specific/X’-specific: Several elements can precede the noun:

(24) John’s every secret wish

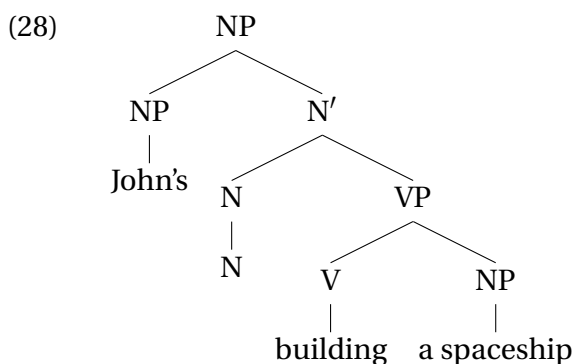
- at that time, heads could project exactly one specifier → there is no such restriction anymore (nor was there one at an earlier time, see Jackendoff (1977)); the following example is compatible with Abney’s assumptions (because he allows for a specifier of N) but not with Jackendoff’s (where there are just 2 [spec] positions to the left of N):

(25) Jen’s every few movements were monitored by the FBI

- gerunds: to avoid an exocentric structure and account for the nominal properties of the agent, one has to postulate some nominal head above VP:



- but it is unclear what rules out a silent N-head taking a VP-complement instead (cf. nominalizing N-heads in derivational morphology, cf. *destruct-ion* etc.):



- consistent selection: verbs can take nouns and pronouns, which are of category D → the DP-hypothesis allows for consistent selection; note: pronouns are sometimes reanalyzed as determiners taking a silent NP-complement consequently, pronouns could be reanalyzed as silent nouns taking a D-specifier
- distribution: demonstrative pronouns have the same distribution like phrases with demonstrative determiners (*dieser Mann* vs. *dieser*) → follows, if both are DPs. However, the same follows if both are NPs and the pronoun is headed by a silent N
- possessor agreement looks like clausal agreement (on T) → Agr within the noun phrase

- (29) a. angute-t kiputa-a-t
man-ERG.PL buy-OM.SG-SM.PL
'The men bought it.'
- b. angute-k kiputa-a-k
man-ERG.DU buy-OM.SG-SM.DU
'the men (du) bought it'

- (30) a. angute-t kuig-a-t
man-ERG.PL river-SG-AGR.PL
'the men's river'
- b. angute-k kuig-a-k
men-ERG.DU river.SG-AGR.DU
'the men's (du) river'

Yupik, cf. Abney (1987: 39–42)

- only morphologically parallel: the object marker occupies the same slot as the marker for the inherent features of N → it is not normally assumed that the head noun occupies the same structural position as the object
- in other languages with possessor agreement, the markers for nominal agr are not identical to verbal agreement, cf. e.g. Turkish
- the facts do not provide evidence for a separate D-layer (the facts from verbal agreement don't do either); c-command between N and the possessor at some point of the derivation would be sufficient for Agree

- possessor agreement licenses silent *pro*:

- (31) a. a mi kalap-unk b. a kalap-unk
the we.NOM hat.POSS.1PL the hat-POSS.1PL
'OUR hats' 'our hats'

Hungarian
cf. Coene and d'Hulst (2003: 5)

- that *pro* is only licensed by agr on functional categories is a purely theory-internal assumption

- argument structure

- (32) a. Rome destroyed Carthage.
b. Rome's destruction of Carthage.

- 'arguments' of nouns are always optional
- with event nouns, argumenthood is easier to justify

- empty elements within NP: just like PRO in clausal contexts:

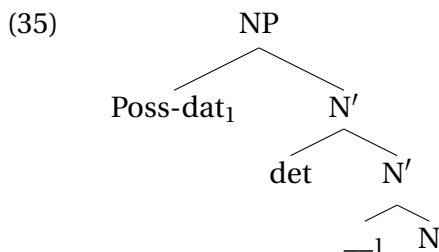
- (33) a. Er_i versprach Maria, PRO_i sich_i zu waschen
 he promised Mary.dat self to wash
 ‘He promised Mary to wash himself.’
 b. La PRO_i descrizione di se stessa_i inviata a quella ditta è stata di grande
 the description of self self sent to this firm is been of great
 giovamento alla carriera di Anna_i
 help to career of Anna
 ‘The description of herself submitted to that firm was very helpful for Anna’s career.’

- two case positions: high and low: prenominally: -s/genitive vs. postnominally prepositional: *of/von*

- Possessors in different positions: like subjects merged low within the lexical XP and later displaced to the specifier of a functional head, e.g. Hungarian:

- (34) a. a Mari kalap-ja b. Mari-nak a kalap-ja
 the Mari.NOM hat-3SG Mari-DAT the hat-3SG
 ‘Mari’s hat’ ‘Mari’s hat’ *Hungarian*

- the facts suggest that the dative possessor is structurally higher than the determiner; if all DP-internal constituents are specifiers of N, the dative possessor could occupy a higher specifier (movement would then, however, involve complement-to-Spec movement and thus should be unrelated to feature checking):



- restricting the movement to the dative possessor is admittedly not quite so easy, but not impossible: N’s with a dative-probe get an EPP- /edge feature; under the DP-hypothesis: D has a Case- and an EPP-feature (what about the nominative? default? or just no EPP-feature?) see also Georgi and Salzmann (2011)
- it is also not inconceivable that the possessor can be generated in different surface positions; as long as it is within the projection of N, it can be assigned a theta-role (there is no evidence like quantifier float that would unambiguously show that the possessor has to have been raised)

- SpecDP as an A’-position: an escape hatch like SpecCP: Extracted possessors in Hungarian must be dative marked:

- (36) a. Mari-nak₁ PETER látta [DP ₁ a kalap-ja].
 Mari-DAT Peter saw the hat-3SG
 ‘Peter saw Mary’s hat.’
 b. *Mari₁ PETER látta [DP a ₁ kalap-ja]
 Mari.NOM Peter saw the hat-3SG

- if NP is a phase (rather than DP), SpecNP could also function as an escape hatch

- NP-ellipsis: a functional head licenses deletion of NP just like T licenses deletion of VP

(37) John likes these books and I like those ~~books~~.

- the class of elements licensing ellipsis is somewhat non-uniform (sg. vs. pl. in English, cf. *that/this*, possessive *-s* does)
- notion of ‘strong agreement’ stipulative: in what sense is *this/that* weaker than *-s*?

2.2 C-command arguments

- hierarchical organization of arguments: possessor > agent > patient

(38) Peters Bild von Maria
Peter.GEN picture of Mary
‘Peter’s picture of Mary’

- *Peter* must be possessor or agent → the thematically higher argument is structurally higher → some evidence for UTAH
 - only the highest role can appear in a special possessive form (*-s*, possessive pronoun)
 - extraction: Italian: only the highest argument can be extracted (minimality), cf. Coene and d’Hulst (2003: 23)
 - binding: agent binds theme, but not vice versa (*John_i’s picture of himself_i*)
 - German differs from English in that post-nominal XPs can bear the agent role, calling into question the assumption that there are designated structural positions for the various theta-roles:
- an argument for hierarchy but no argument for a separate D-layer
- in German, agents can be postnominal,

(39) Das Foto von Peter
the picture of Peter
‘the picture of Peter’

- * a picture taken by John agent
- * a picture of John patient
- * a picture owned by John possessor
- * English is different: while the theme can be realized as both prenominal and postnominally (*of*-possessor) the agent role must be realized as a prenominal genitive (or as a *by*-phrase)

- higher elements have scope over lower ones, but this can also be captured if the higher element is in a higher spec:

(40) neue(,) umweltfreundliche Verfahren
new environment.friendly methods
‘new environmentally friendly methods’

- Adjectival inflection in German: determined by the inflection on the D-element:

(41) a. (ein) rot-er Wein b. ein-em rot-en Wein c. rot-em Wein
a red-STR wine a-DAT red-WK wine red-STR wine
‘a red wine’ ‘to a red wine’ ‘to red wine’

- c-command can be sufficient once we allow phrasal elements to act as probes (which seems hard to avoid given bare phrase structure), i.e. determiner in SpecNP c-commands Adj in a lower SpecNP

2.3 Semantic arguments

- non-arguments/predicates/non-referential expressions = NP
- arguments/referential expressions = DP

→ the D-element turns the predicate into an argument, cf. Longobardi (1994):

- (42) a. Gianni é medico (*che ...)
 John be.3SG doctor who
 'John is a doctor' (German: Peter ist Arzt, (*der ...))
- b. Gianni é un medico (che ...)
 John be.3SG a doctor who
 'John is a doctor' (German: Peter ist ein Arzt, (der ...))

- the absence of an overt article does not imply lack of argumenthood: bare plurals and mass nouns

(43) I like milk and dogs.

- Some languages lack articles altogether; nevertheless, noun phrases in these languages can occur in argument position

→ A silent D? But what rules out a silent D in (42-a)?

- in some languages, even predicates require D-elements:

(44) He is *(a) doctor.

- further problems (Bruening 2009: 31):

- elements of category D are mostly anaphoric (mark something as previously mentioned, inferrable, known to speaker/hearer) – it seems odd that these elements should necessarily be responsible for turning a predicate into an argument
- even if D turns a predicate into an argument, this does not require the element doing the conversion to be the head of the phrase: semantic function-argument relations do not have to match syntactic head-complement/specifier relations

(45)

```

  NP (e)
  /  \
 Det  N'
 <et,e> <e,t>
  
```

2.4 Positional evidence: word order variation

2.4.1 N-to-D-movement

- post-nominal articles in Scandinavian:

(46)

```

  DP
  /  \
  D    NP
 /  \  |
hus- -et N
'house' |
        thus-
  
```

- but: N-movement is blocked with prenominal adjectives: double definiteness → adjectives as heads: HMC blocks N-raising:

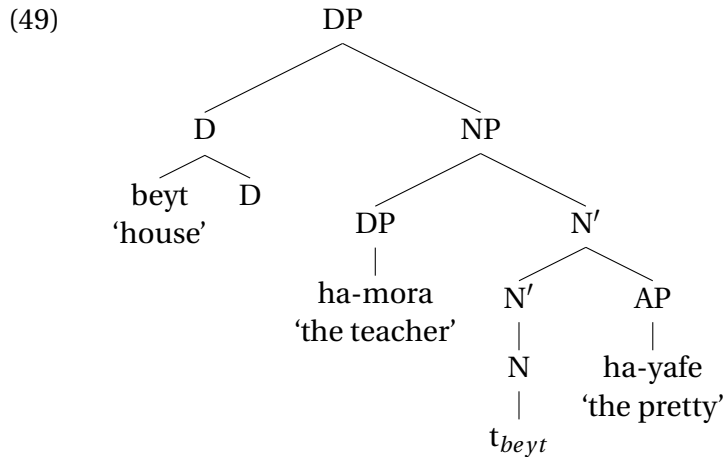
(47) det store hus-et
 the big house-DEF
 'the big house'

Norwegian

- Semitic construct state

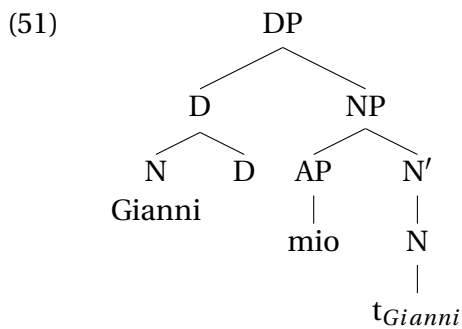
(48) beyt ha- mora ha- yafe
 house.M the- teacher.F the- pretty.M
 'the teacher's pretty house'

Modern Hebrew



- Italian proper names:

(50) a. *mio il Gianni b. il mio Gianni c. *mio Gianni d. Gianni mio
 my the John the my John my John John my
 'my John'



- cf. also proper names in West-Germanic: compatible with D, but not when used in the vocative (the alternation in Italian also occurs in argument position) :

(52) a. der Hans kommt b. *(der) Hans, komm!
 the John come.3SG the John come.IMP
 'John comes' 'John, come!'

2.4.2 Partial head Movement

- adjective orders

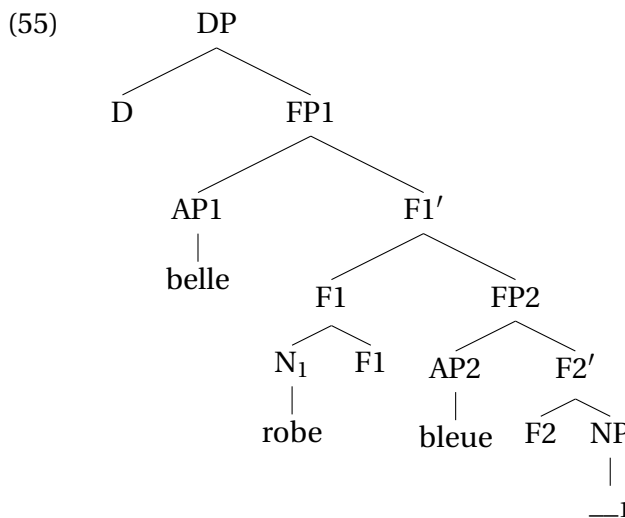
- observation: adjectives precede the noun in Germanic while they tend to follow it in Romance while they still precede complements of N (tendency: the more to the south the more likely the adjective is to follow the N)
- idea: Romance languages involve movement of N to a position above A

- (53) a. un chapeau noir
 a.M hat black
 'a black hat' *French*
- b. ein schwarzer Hut
 a black.M.NOM hat
 'a black hat' *German*

- in some Romance languages, the position of adjectives depends on which class they belong to:

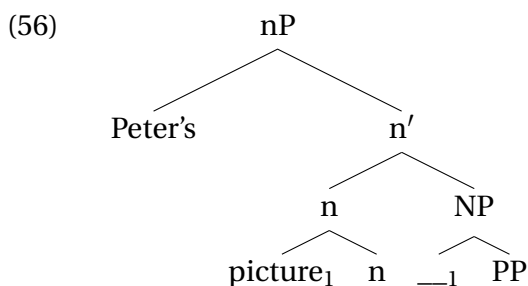
- (54) une belle robe bleue
 a.F nice.F dress blue.F
 'a nice blue dress'

- * proposal (cartography): adjectives are ordered in a fixed hierarchy of specifier positions
- * N-movement can target head-positions within the functional sequence of adjectives:



- N-to-n movement

- English: agent only prenominal: outside the c-command domain of the *of*-Case assigner → in SpecnP (and N undergoes N-to-n movement)



- ditransitive nominalizations: independent motivation for N-to-n movement

- (57) a. the consul's gift of the gladiator_i to himself_i
 b. das Vertrauen von jedem Spieler_i in seine_i Fähigkeiten
 the trust of every.DAT player in his abilities
 'Every player_i's trust in his_i abilities'

- * Since in German, agents can occur post-nominally, they are probably generated lower than nP, still, since post-nominal agents can bind into postnominal PPs, there has to be N-to-n-movement:

- (58) der Bericht von jedem IGRA-Studenten_i über seine_i Leiden
 the report of every IGRA-student about his suffering
 'Every IGRA-student's report about his suffering'

2.4.3 Phrasal movement

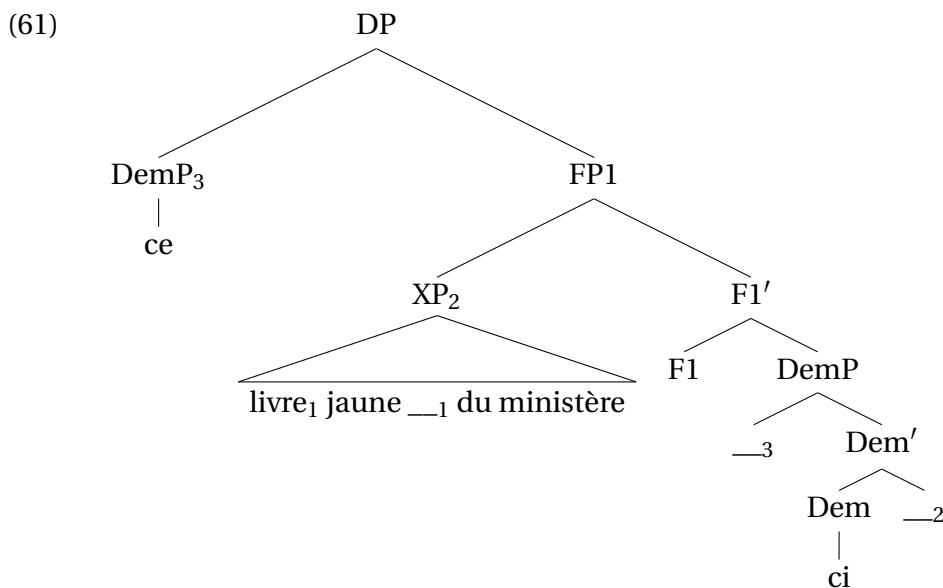
- to SpecDP: e.g. possessors in Hungarian (see above)
- to an intermediate projection
 - reinforced demonstratives in Romance:

- (59) a. Ce livre ci
 this book here
 'this book'
- b. questo libro qui
 this book here

- * assumption: the two demonstrative element originate within the same functional projection, one being the head, the other the spec
- * one could postulate N-movement left-adjoining to the F-head in Romance
- * the fact that the demonstrative head follows N-complements, however, argues in favor of phrasal movement of a constituent containing both N and A:

- (60) ce délégué du ministère ci
 this delegate of the minister here
 'this delegate of the minister'

French



- * what about reanalyzing the lower *ce* as a right-hand specifier (SpecDP) and the top *ce* as the D-head?

2.5 Absence of D has drastic consequences

- the absence of an overt D has drastic syntactic consequences, which can be explained more easily if in these languages the noun phrase involves a completely different structure, i.e. no D-head, see Bošković (2009):

	overt D	covert D
allow LBE	no	yes
allow scrambling	no	yes
can be polysynthetic	no	yes
allow Neg-raising	yes	no
superiority effects in wh-mvt	yes	no
allow adj extraction from NP	no	yes
allow trans. nominals with 2 non-lexical genitives	yes	no
allow the majority superlative reading	yes	no
island sensitivity in head-internal relatives	no	yes

2.6 Arguments that N must be the head

2.6.1 An asymmetry in complement selection: Bruening (2009)

- verbs that select clausal complements always select elements high in the structure: questions vs. declaratives, finite vs. non-finite, indicative vs. subjunctive

- (62) a. Sue thinks that the world is flat.
 b. *Sue thinks whether the world is flat
 c. *Sue wonders that the world is flat.
 d. Sue wonders whether the world is flat.

- (63) a. Bertrand wants the world to be flat.
 b. *Bertrand wants that the world is flat.

- (64) a. Sue asked that the answer be/*is two.
 b. Sue thinks that the answer *be/is two

- but isn't subjunctive selection selection of a specific form of the verb? no, what is selected is a high element in the extended projection, not the main verb:

- (65) I suggest that you be/*are studying when I return.

- verbs that select clauses generally only select the highest functional head: C
 - subjunctives seem to be a problem → one may have to postulate different complementizers selecting different forms of the verb (cf. languages like Romanian that have different complementizers)
 - verbs can select V2 clauses (e.g. German), illocutionary force (exhortative in Korean, imperative in Japanese)
 - verbs never select complement clauses with topics/foci, suggesting that these are not the topmost heads of the complement clause
- verbs that select nominal arguments NEVER select particular determiners, numbers, possessors etc.: if a verb admits an NP, any sort of NP is allowed: quantificational, deictic, definite/indefinite, number, adjective etc.

- (66) nonexistent
 a. John glorped books.
 b. *John glorped his books.

- number selection by verbs: only semantic
 - (67) a. I gathered the students.
 - b. *I gathered the student.
 - c. I gathered the French club.
 - d. *I gathered the scissors.
 - (68) a. The students met.
 - b. *A student met.
 - c. The French club met.
- selection by V can target the content of N, e.g. when a verb selects an animate argument rather than an inanimate one, but this is arguably only semantic
- strategies to fix the selection problem: percolation of N's features or double-headedness: does not explain why D is never selected
- Some of the verbal selection may be semantic (+/- wh), but especially the cross-linguistic variation w.r.t. the finiteness of complements of verbs (also w.r.t. +/- to-Inf) suggests that not all selection can be reduced to semantics
- the fact that determiners like *the/this* have to occur with an NP could be an instance of syntactic selection, but it could also be a semantic requirement

2.6.2 Form determination (Bruening 2009: 29ff.)

- clausal level: each head determines the form of the head of its complement:
 - (69) I might have been being handed some cocaine (when the police caught me)
- the main verb does not determine the form of the functional element; rather, it's the other way around:
 - (70) a. I broke the vase.
 - b. I was breaking the vase (when you came in).
 - c. I have broken the vase.
 - d. I might/want to break the vase.
 - possible exception: aux-selection of ergative vs. unaccusative verbs (however: voice plays a role, and other constituents like PPs affect the choice: *in den Graben/im Graben getanzt*)
- in nominals, the noun determines the form of the other constituents: count/mass noun distinction, concord
 - (71) a. too many/*much people
 - b. too much/*many rice
 - c. these/*this scissors
 - Since inherent features of the nouns are distributed over the NP, it is difficult to argue that features of D determine features on A, N:
 - gender is an inherent feature of N
 - pluralia tantum like *scissors, Ferien* etc. → note that this is purely grammatical agreement, not semantic agreement
 - note: the reverse does not exist: there are no cases of verbs that cannot combine with certain functional elements/that restrict the choice of functional elements, e.g. a verb that only occurs with finite/non-finite forms (but: deponent verbs: no active forms)
 - one systematic exception: definiteness agreement/adjectival inflection in German: regulated by D

2.6.3 Noun incorporation: Baker (1988: 93ff.)

- (72) Noun incorporation in Mohawk:
- a. ka- nuhs- rakv thikv
3N- house- white DEM
“This house is white.”
 - b. ka- nuhs- rakv [nehneh a- ak- ahninu]
3N- house- white DEM INDEF- 3F- buy
“The house that she would like to buy is white.”
 - c. ka- nuhs- rakv ne wisk ni- ka- wa
3N- house- white five PART- 3N- PL
“Five houses are white.’
 - d. Hrao- nuhs- rakv ne sawatis
3M- house- white DET John
“John’s house is white.”

2.6.4 Further arguments

- many languages lack the category of determiners, but none (it seems) lack something like C

References

- Abney, Steven (1987): The English noun phrase in its sentential aspect. Doctoral dissertation, MIT.
- Alexiadou, Artemis, Haegeman Liliane and Stavrou Melita (2007): *Noun phrase in the generative perspective*. Mouton de Gruyter, Berlin u.a.
- Baker, Mark C. (1988): *Incorporation a theory of grammatical function changing*. University of Chicago Press, Chicago [etc.].
- Bernstein, Judy B. (2001): The DP Hypothesis: Identifying Clausal Properties in the Nominal Domain. In: M. Baltin and C. Collins, eds, *The Handbook of Contemporary Syntactic Theory*. Blackwell, Malden, MA, pp. 536–561.
- Bošković, Željko (2009): ‘More on the no-DP analysis of article-less languages’, *Studia Linguistica* 63(2), 187–203.
- Bruening, Benjamin (2009): Selectional Asymmetries between CP and DP Suggest that the DP Hypothesis is Wrong. In: L. MacKenzie, ed., *University of Pennsylvania Working Papers in Linguistics 15.1: Proceedings of the 32nd Annual Penn Linguistics Colloquium*. University of Pennsylvania, Pennsylvania, pp. 26–35.
- Chomsky, Noam (1995): *The minimalist program*. MIT Press, Cambridge, Massachusetts.
- Coene, Martine and Yves d’Hulst (2003): Introduction: The syntax and semantics of noun phrases. Theoretical background. In: M. Coene and Y. d’Hulst, eds, *From NP to DP Volume 1: The syntax and semantics of noun phrases*. John Benjamins, Amsterdam, pp. 1–33.
- Danon, Gabi (2011): ‘Agreement and DP-Internal Feature Distribution’, *Syntax* 14(4), 297–317.
- Georgi, Doreen and Martin Salzmann (2011): ‘DP-internal double agreement is not double Agree: Consequences of Agree-based case assignment within DP’, *Lingua* 121(14), 2069–2088.
- Jackendoff, Ray (1977): *X’ Syntax. A study of phrase structure*. MIT Press, Cambridge, Mass.
- Longobardi, Giuseppe (1994): ‘Reference and Proper Names: A Theory of N-Movement in Syntax and Logical Form’, *Linguistic Inquiry* 25(4), 609–665.
- Longobardi, Giuseppe (2001): The structure of DPs: Some principles, parameters and problems. In: M. Baltin and C. Collins, eds, *The handbook of contemporary syntactic theory*. Blackwell, Malden, MA, pp. 562–603.
- Picallo M, Carme (1991): ‘Nominals and nominalization in Catalan’, *Probus* 3(3), 279–316.
- Punske, Jeffrey (2014): Functional structure inside nominal phrases. In: A. Carnie, Y. Sato and D. Siddiqi, eds, *The Routledge handbook of syntax*. Routledge, London/New York, pp. 65–88.
- Ritter, Elizabeth (1993): ‘Where’s Gender?’, *Linguistic Inquiry* 24(4), 795–803.