Article languages and non-article languages:
a typological parameter with wider implications?

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1. What are articles?

Articles - elements (words/morphemes) that specify the type of reference made by the noun. They may code both definiteness (e.g. *the* in English) and indefiniteness (*a*/*an*).

2. Why are articles important to generative linguists?

Abney's (1987) **Determiner Phrase hypothesis**: what has traditionally been assumed to be the highest layer in the nominal structure (the **NP**) is in fact **dominated** by functional material, headed by the **D(eterminer)**.

The noun is the semantic/lexical nucleus of the nominal complex; the DP layer plays a syntactic/regulating/configurational role.

Abney, Steven (1987), *The English noun phrase in its sentential aspect*, PhD diss., MIT.

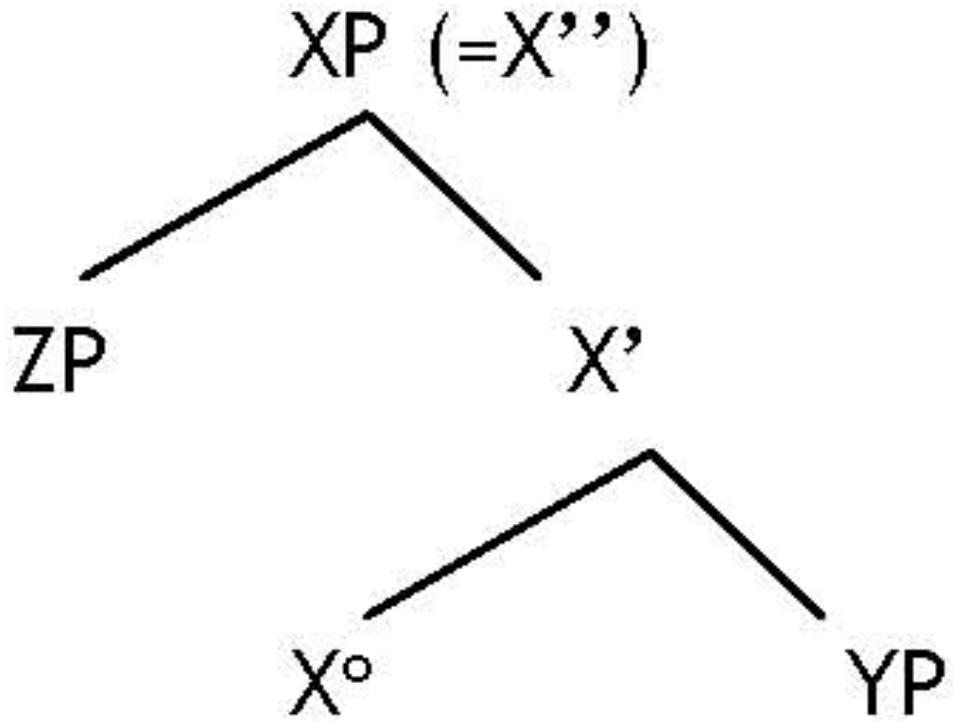
Jackendoff (1977): X-bar syntax

Jackendoff, Ray (1977). *X-bar syntax*, Cambridge, MA: MIT Press.

The X-bar model is assumed to be universal.

Every syntactic phrase is constructed in the same way, consisting of three main elements: the head (the central element in the phrase), its complement, and the specifier of the phrase (note that complements and specifiers are also phrases).

Universal X-bar model:

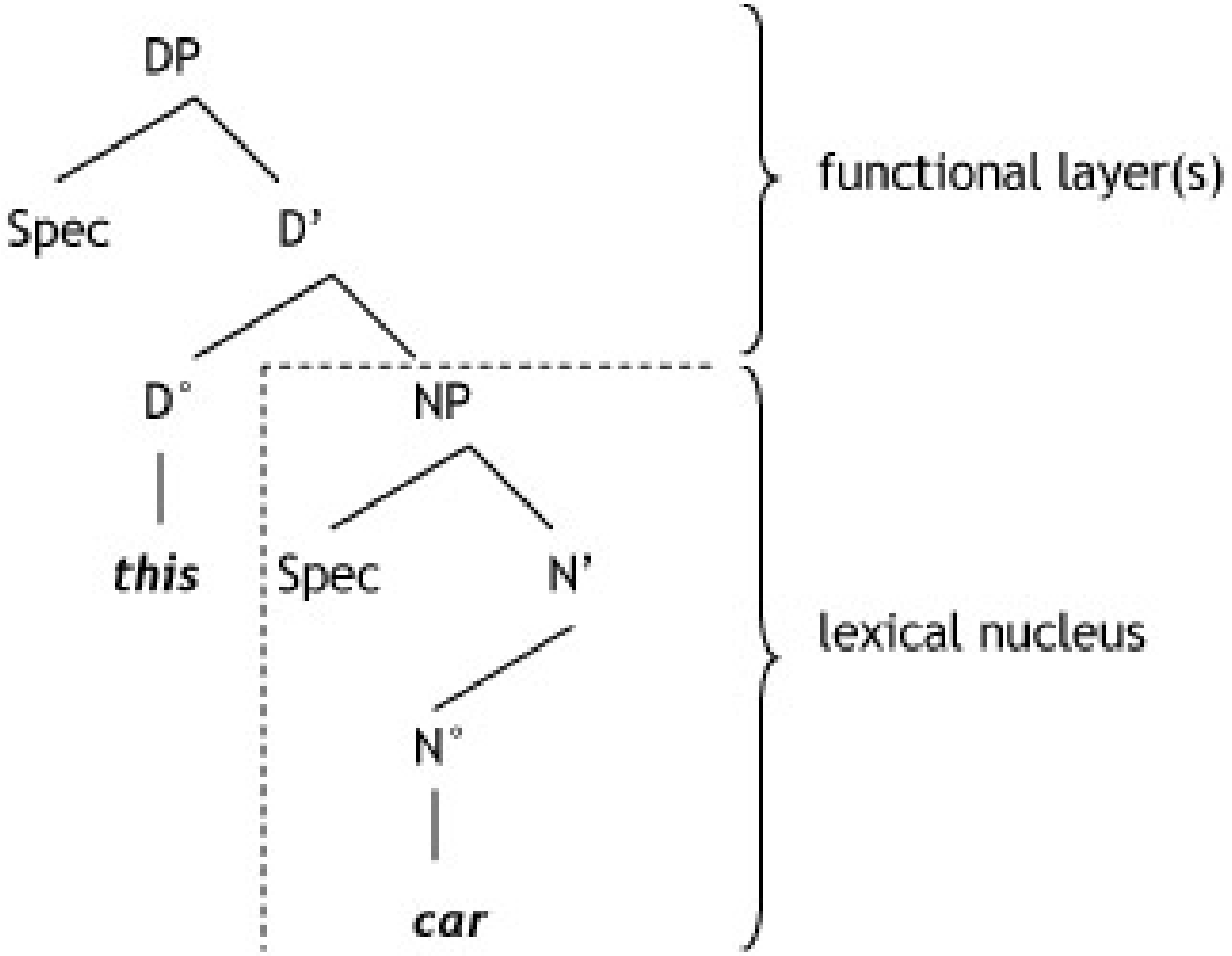


XP: phrase, ZP: specifier, X°: head, YP: complement

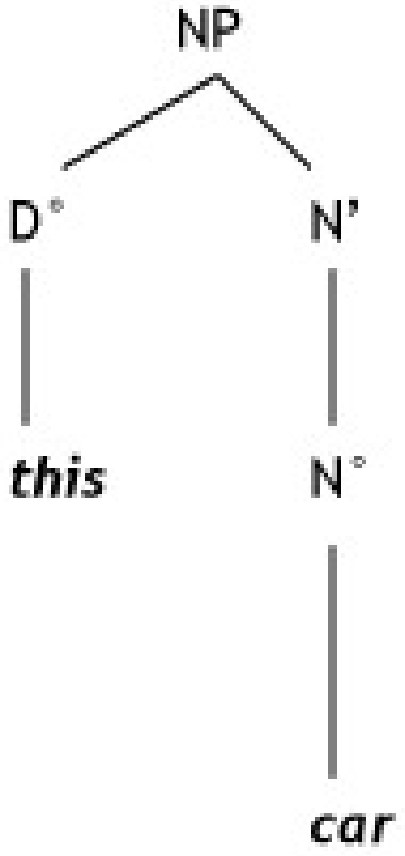
'genealogical' relations, e.g.: YP is the 'sister' of X°

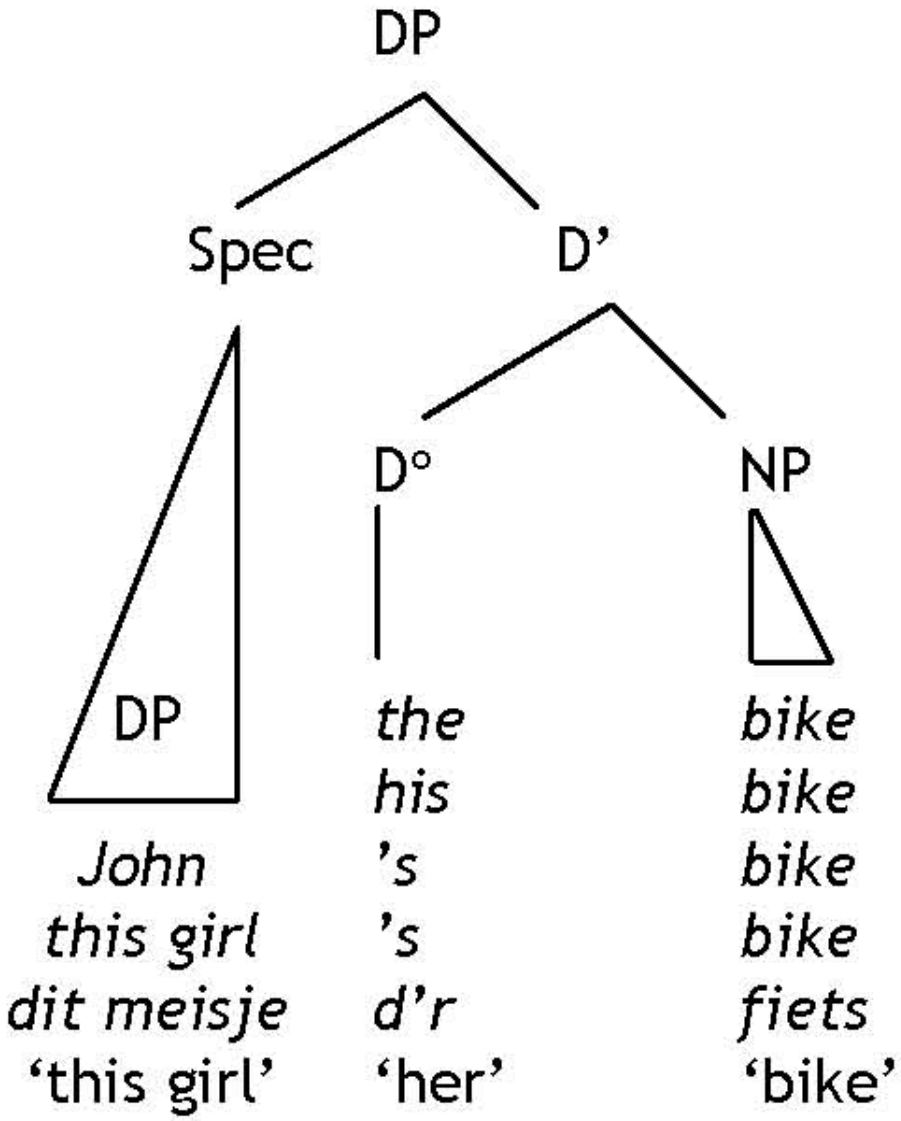
There is a clear-cut distinction between **lexical** and **functional** categories. The two classes contribute to the semantics of an expression in different ways. The former are **denotatively contentful** (their appearance is driven by the intension of an expression), whereas the latter function as the necessary **anchoring** of lexical substance in an utterance (they influence and **regulate** the interpretation of their complements by marking **grammatical** or **relational** features).

The DP hypothesis:



The traditional NP structure:




DP
Spec
D'
D°
NP
DP
the
his
's
's
d'r
bike
bike
bike
bike
fiets
John
this girl
dit meisje
'this girl'
'her'
'bike'

The DP debate in Slavic linguistics:

The D° position is typically assumed to be occupied by articles. Whether the **articleless** Slavic languages (such as Polish) project DPs on top of NPs has been subject to much debate among generative linguists (e.g., Zlatić (1997), Progovac (1998), Willim (2000), Trenkic (2004), Bošković (2005)). Some of them argue that the DP projection is **universal** (because it is necessary for argumenthood), others suggest that the presence of DP is subject to cross-linguistic **parameterization**.

Universal Grammar (UG) consists of:

- a finite set of fundamental **principles** (shared by all languages);
- a finite set of **parameters** (responsible for syntactic variability amongst languages)

Children are equipped with UG (i.e. the complete set of principles and parameters). Language acquisition = the process to **setting** each parameter, according to the settings of a given natural language. Parameters are not **learned** by exposure to language. Exposure to language makes the parameters **adopt** the correct settings.

Goal of linguistics: to identify all the principles and parameters that constitute UG.

Examples of principles:

Pronciple: every sentence must have a subject.

Parameter: subjects need not be present (pronounced) in surface syntactic structure (pro-drop parameter).

Settings: - (English), + (Polish)

(*On*) *czyta*.

*(*He*) *reads*.

Principle: subordinate clauses start with a complementizer.

Parameter: the complementizer need not be realized phonetically (overtly pronounced).

Settings: + (English), - (Polish)

*Jan wie, *(że) ona go kocha.*

John knows (that) she loves him.

There seem to be good reasons to assume that Polish (a language without articles) may be analyzed as projecting the **DP layer** on top of the nominal structure. This would mean that the presence of the DP layer is not dependent on the presence of articles (i.e. we are dealing with a universal here, and not with a parameter).

The DP analysis of Polish may be supported by certain DP-internal **word order** facts – in particular, a number of **noun/pronoun** asymmetries.

Personal pronouns/nouns + adjectives:

[***Sam profesor***] *czytał mój artykuł.*
himself-ADJ professor read my article
‘The professor himself read my article.’

[***On sam***] *czytał mój artykuł.*
he himself-ADJ read my article
‘He himself read my article.’

Personal pronouns/nouns + quantifiers:

[***Wszyscy lingwiści***] *czytali mój artykuł.*
all linguists read my article
‘All linguists read my article.’

[***Wy wszyscy***] *czytaliście mój artykuł.*
you all read my article
‘All of you read my article.’

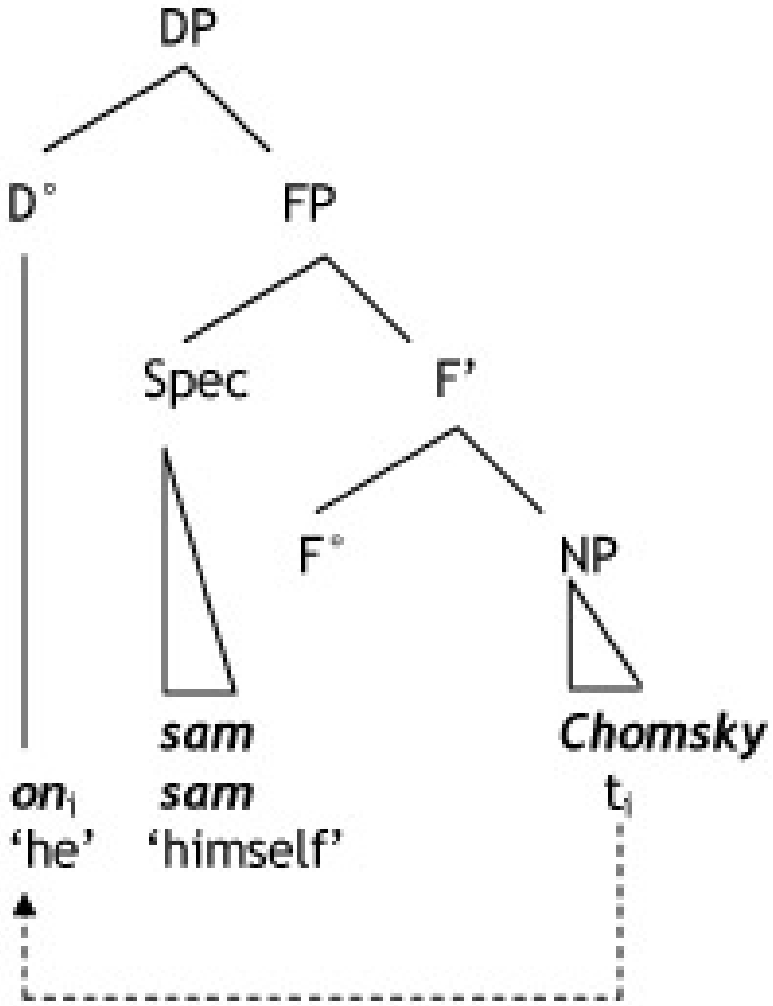
Personal pronouns/nouns + numerals:

[***Trzej lingwiści***] *czytali mój artykuł.*
three linguists read my article
‘Three linguists read my article.’

[***My trzej***] *czytaliście mój artykuł.*
we three read my article
‘The three of us read my article.’

Progovac (1998) shows that the DP hypothesis provides an **elegant explanation** for similar noun/pronoun asymmetries in Serbian, if we assume that personal pronouns reside in the D° node, whereas nouns occupy the N position (this idea stems from Postal (1969)). Cardinaletti (1993) and Progovac (1998) also suggest that personal pronouns are actually **generated in N°** (similarly to regular nouns) but move to D° in overt syntax for referential reasons.

N°-to-D° movement of personal pronouns:



This analysis **crucially** depends on the presence of the D° position: the DP layer must be postulated in Polish in order to account for the **initial** position of personal pronouns (which are assumed to occupy D°).

3. Bošković's generalizations

Željko Bošković: Slavic (and other article-less) languages do not have the DP layer in their phrasal inventory.

- The presence/absence of articles influences other syntactic properties of languages.

The stone broke the window.
Kamen je razbio prozor. (Serbo-Croatian)

- Bošković rejects the idea that even in article-less languages we still need an abstract/null position associated with referential information.

Bošković supports his analysis with a number of generalizations in which, according to him, articles play a crucial role.

Bošković, Željko (2005), “On the locality of left branch extraction and the structure of NP”, *Studia Linguistica* 59 (1), pp. 1-45.

Bošković, Željko (2008), “What will you have, DP or NP?”, *Proceedeings of NELS 37*, vol. 1, pp. 101-114.

Bošković, Željko (2009), “More on the no-DP analysis of article-less languages”, *Studia Linguistica* 63 (2), pp. 187-203.

Generalization 1: *Left-Branch Extraction*

**Expensive*/*That*$_i$ *he saw* [t$_i$ *car*].

Skupa/*Ta*$_i$ *je vidio* [t$_i$ *kola*]. (Serbo-Croatian)

- Generalization: only languages without articles may allow LB (this is a one-way correlation: not all article-less languages allow LB).
- Additional restriction: the generalization applies to definite articles only (Slovenian allows LBE although it has an indefinite article).
- Example: Latin vs. Romance languages.

Cuiam$_i$ *amat Cicero* [t$_i$ *puellam*]*?*

Quales$_i$ *Cicero amat* [t$_i$ *puellas*]*?*

- Bulgarian and Macedonian:

  a. **Novata$_i$ prodade Petko* [t$_i$ *kola*].

  b. *Novata kola$_i$ prodade Petko* t$_i$. (Bulg.)

- Mohawk, Southern Tiwa, Gunwinjguan – lack of articles and LBE.
- Problem: Greek allows LBE; Bošković: Greek is irrelevant. *The "article" in such examples would not be considered an article. See also Mathieu and Sitaridou (2002), who suggest this type of "articles" in Greek are actually agreement markers. (Greek articles may in fact be ambiguous between real articles and Slavic-type adjectival endings.)*

Bošković (2005): *The strongest arguments for DP in SC concern pronouns (see Progovac 1998). It is worth noting in this respect that nothing in Corver's analysis or the discussion below would actually change if pronouns are Ds, more precisely, the **only** Ds in SC.*

However, Polish **allows** LBE even in those structures that contain personal pronouns:

Pięciu$_i$ *widziałem* [$_{DP}$ *ich* $_{ti}$] *w lesie.*
five I-saw they-GEN in forest
'I saw five of them in the forest.'

Wszystkich$_i$ *widziałem* [$_{DP}$ *ich* $_{ti}$] *w lesie.*
all I-saw they-GEN in forest
'I saw all of them in the forest.'

Bošković (2005): the ban on LBE in English is analogous to the ban on deep LBE in Slavic

On je vidio [$_{NP}$ *prijatelja* [$_{NP}$ *njegove majke*]].
he is seen friend his mother
'He saw a friend of his mother.'

**Čije*$_i$ *je on vidio* [$_{NP}$ *prijatelja* [$_{NP}$ t$_i$ *majke*]]*?*
whose is he seen friend mother
'Whose mother did he see a friend of?'

In Polish: deep LBE is perfectly **possible**:

Jakich$_i$ *on kupił* [$_{NP}$ *paczkę* [$_{NP}$ t$_i$ *papierosów*]]*?*
what-kind-of he bought pack cigarettes
'What kind of cigarettes did he buy a pack of?'

Is the possibility of LBE really related to the DP layer? What about extraction from adverbials (thanks to J. Linde-Usiekniewicz for drawing my attention to this problem)?

Jak daleko dotarłeś?

how far you-got

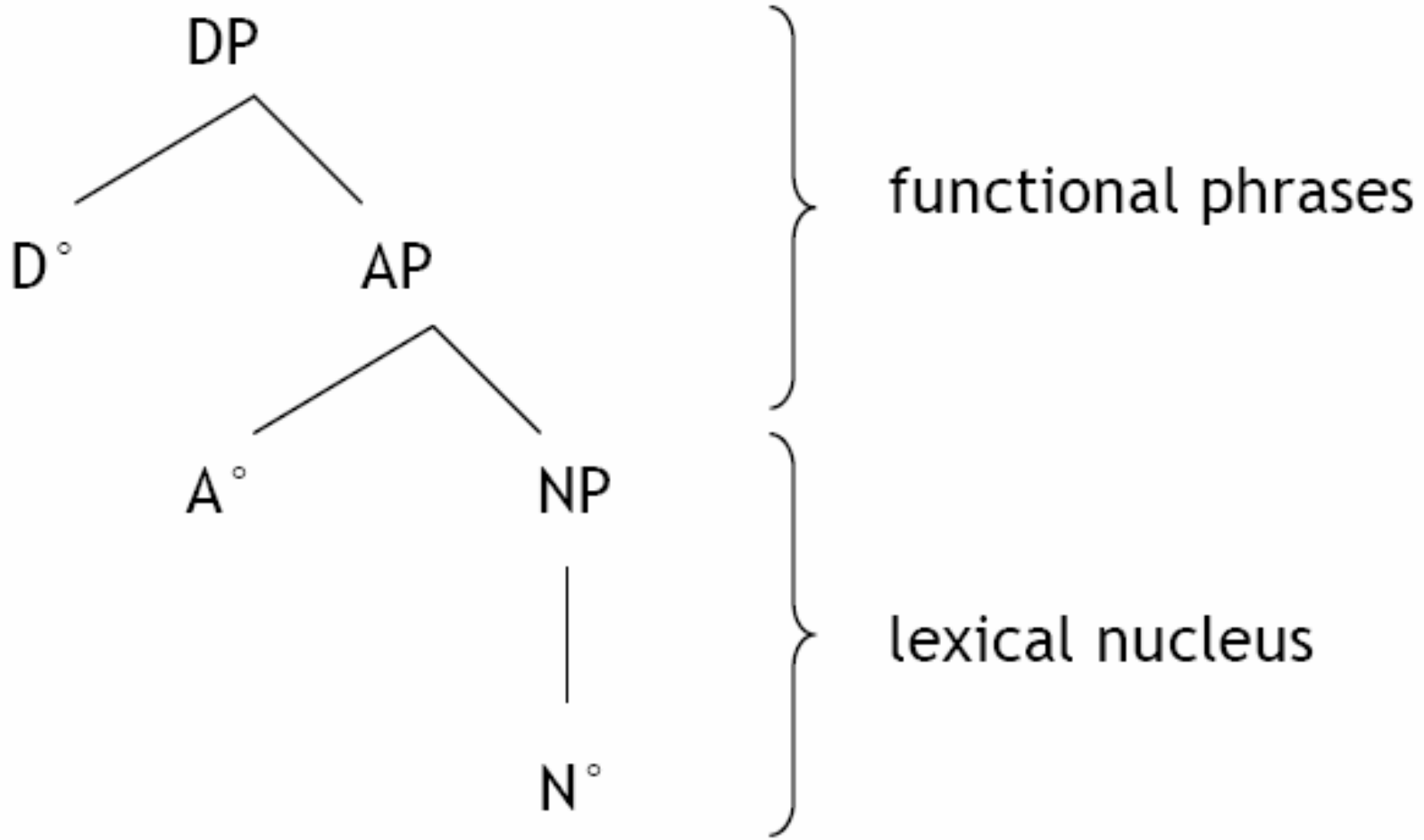
'How far did you get?'

Jak dotarłeś daleko?

how you-got far

**How did you get far?*

Adjectives in Abney (1987):



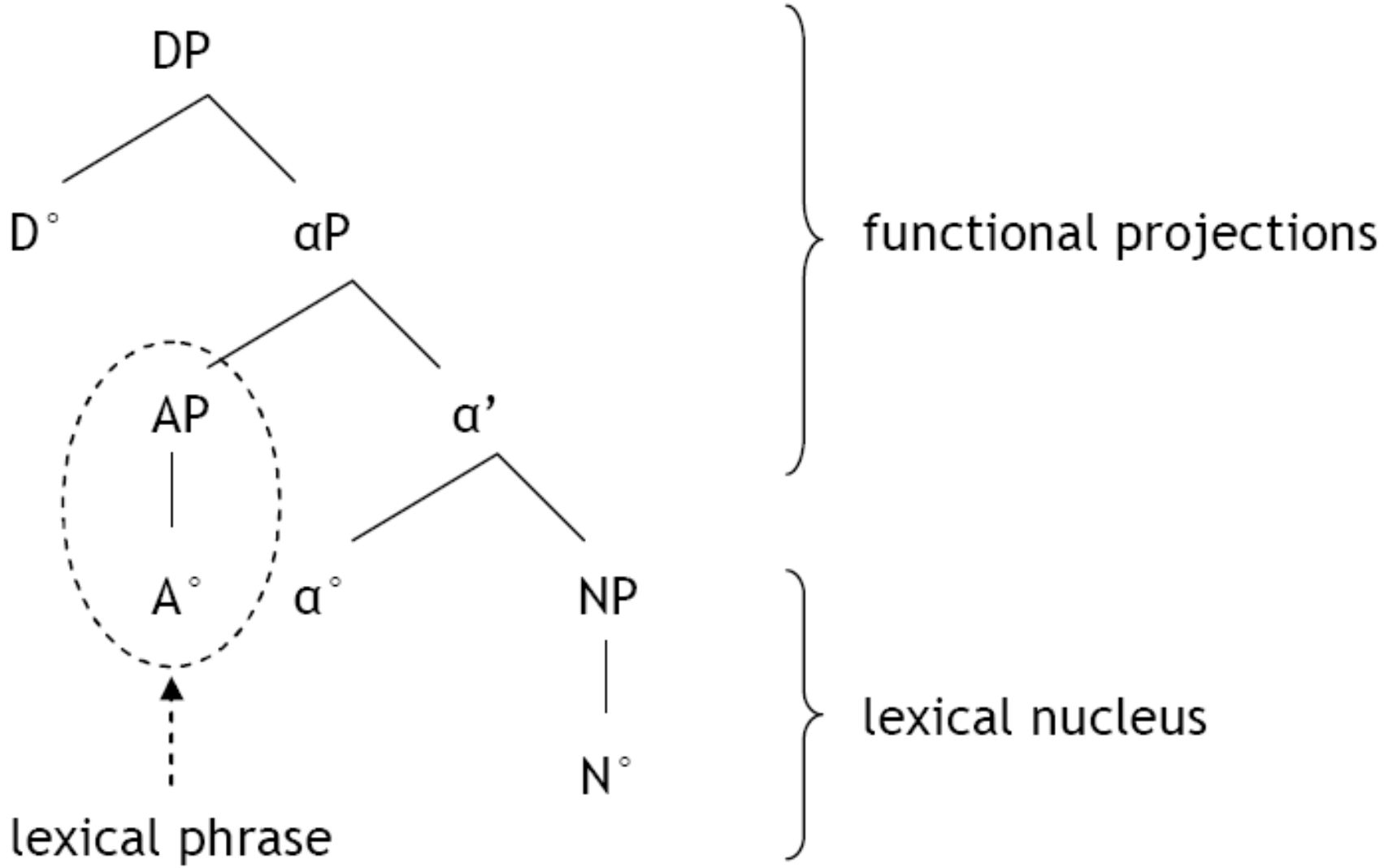
The above model is still used by, e.g., Bošković (2005):

A strong argument for A headedness of the traditional NP in English, noted by Abney (1987), is provided by constructions like the following:

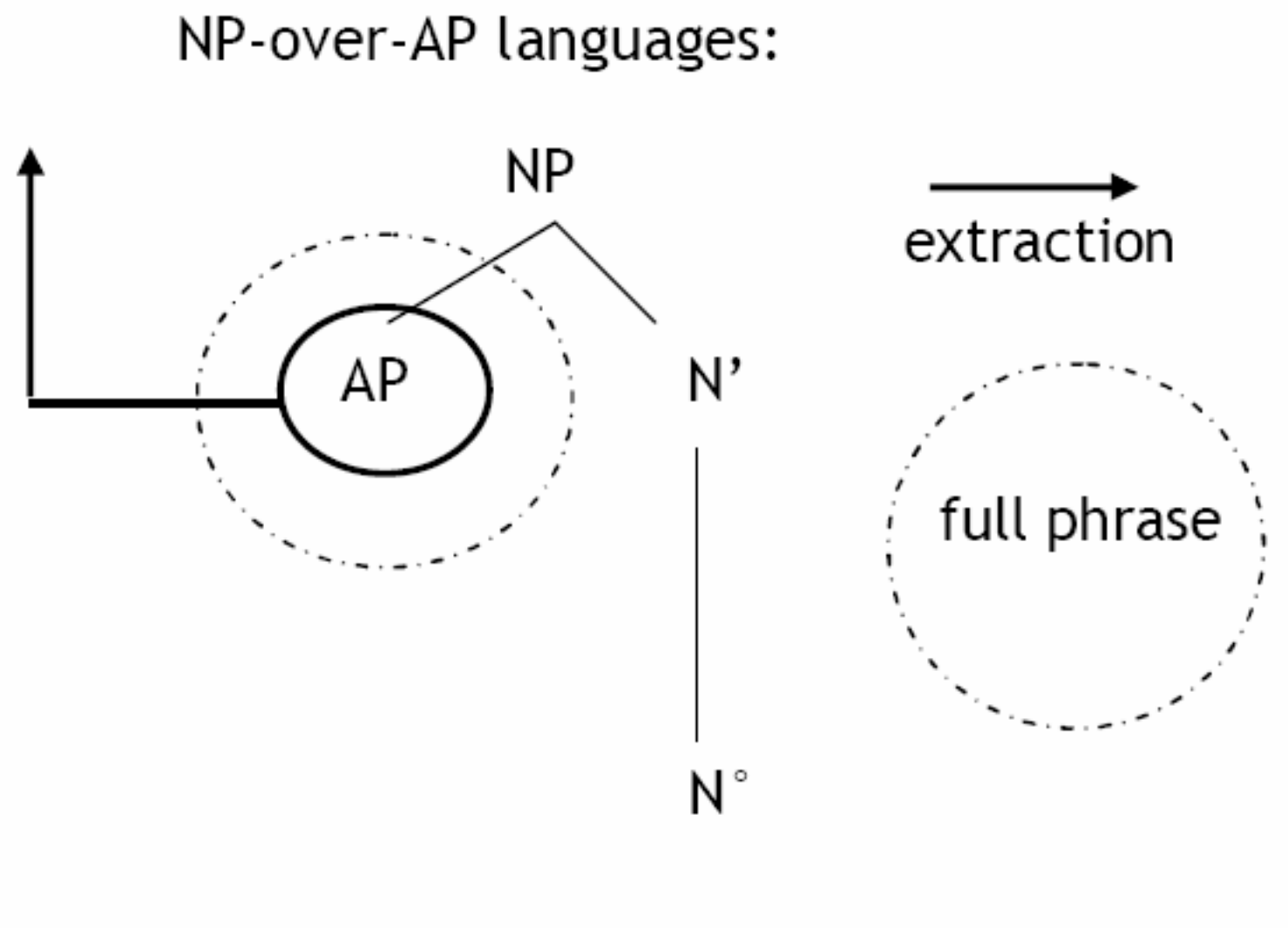
too big of a house

The adjective appears to be assigning genitive Case to the following NP, which is realized through *of*-insertion.

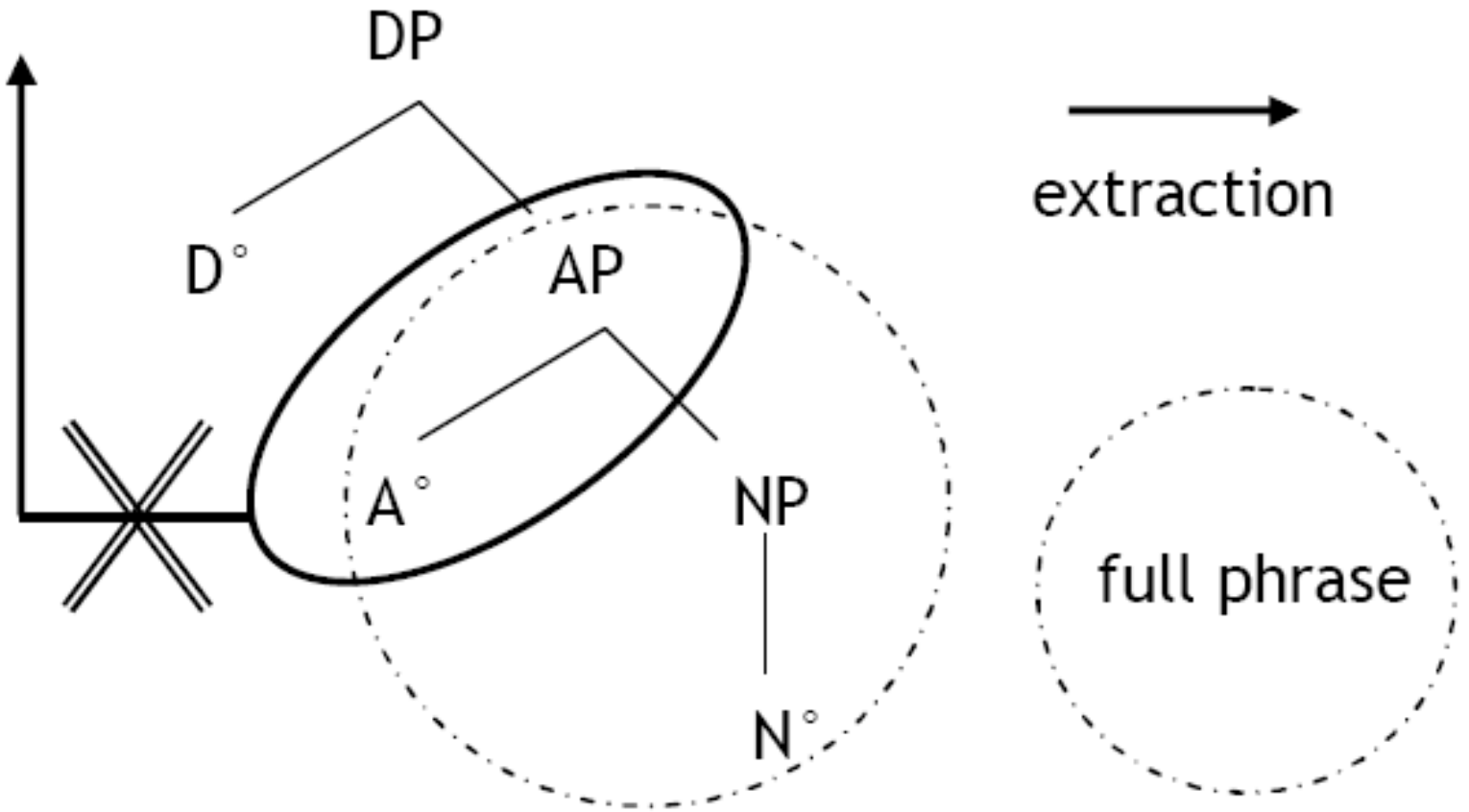
Predominant view on qualifying adjectives:



Bošković: LBE is a phrasal phenomenon so it cannot take place in AP-over-NP languages:



AP-over-NP languages:



Generalization 2: *Adjunct Extraction*

a. **From which city$_i$ did Peter meet* [*girls* t$_i$]*?*

b. *Peter met* [*girls from this city*].

**Ot koj grad$_i$ Ivan* [*sreštna momičeta* t$_i$]*?* (Bulg.)

Iz kojeg grada$_i$ je Ivan sreo [*djevojke* t$_i$]*?* (S-C)

- Generalization: only languages without articles may allow adjunct extraction.
- Problem: Spanish allows examples such as the ones above but *the relevant phrase is an argument (Ticio 2003). With clear adjuncts (e.g. a por phrase), extraction is disallowed.*

Generalization 3: *Scrambling*

Bošković: *By scrambling I mean the kind of movement referred to as scrambling in Japanese, not German, whose "scrambling" is a very different operation with very different semantic effects from Japanese scrambling. One of the defining properties of scrambling is taken to be the existence of long-distance scrambling from finite clauses, which German lacks.*

Sono hon-o$_i$ [$_{IP}$ *John-ga* [$_{CP}$ [$_{IP}$ *Mary-ga* [$_{VP}$ t$_i$ *katta*]] *to*] *omotteiru*]].

that book-ACC John-NOM Mary-NOM bought that thinks

'That book, John thinks that Mary bought.'

- Generalization: only languages without articles may allow scrambling.
- Serbian, Latin, Korean, Turkish, Hindi, Chukchi, Chichewa, Warlpiri have scrambling and lack articles.
- Bulgarian *has noticeably less freedom of word order than SC*.
- Romance languages: no scrambling.
- Lakhota, Mohawk and Wichita (related languages) – *the latter two lack articles and have more freedom of word order than Lakhota, which has articles*.

Generalization 4: *Negative Raising*

- Negative raising: negation may be interpreted as belonging either to the matrix clause or to the subordinate clause:

John does not believe she is smart.

= *Janek nie uważa, że ona jest inteligentna.*

lub *Janek uważa, że ona nie jest inteligentna.*

The best test: the availability of NPIs – negative polarity items, e.g. *until tomorrow*:

Mary will not leave until tomorrow.

**Mary will leave until tomorrow.*

Mary hasn't visited Ted in at least two years.

**Mary has visited Ted in at least two years.*

John didn't believe [that Mary would leave until tomorrow.]

John doesn't believe [that Mary has visited Ted in at least two years.]

The availability of NR is limited to certain verbs only (*NR verbs*), e.g. it is not possible in the case of the verb *claim*:

**John didn't claim* [*that Mary would leave until tomorrow*.]

**John doesn't claim* [*that Mary has visited Ted in at least two years*.]

Generalization: NR is disallowed in languages without articles (Serbian, Czech, Slovenian, Polish, Turkish, Korean, Japanese, Chinese). NR is allowed in English, German, French, Portuguese, Romanian, Bulgarian, Spanish.

John didn't believe that Mary would leave until tomorrow.

O João não acreditou/??disse que a Maria vai sair até amanhã. (Port.)

*Jean ne croyait/*espérait pas que Marie parte avant demain.* (Fr.)

**Ivan ne veril, čto Marija uedet až do zavtrašnego dnja.* (Rus.)

**Jan nie wierzył, że Maria wyjedzie aż do jutra.* (Pol.)

**Ivan nije vjerovao da će Marija otići sve do sutra.* (S-C)

**Jon-wa [Mary-ga asita made syuppatu suru daroo to] sinzi-nakatta.* (Jap.)

??John-un [Mary-ka ecey-kkaci-to ttena-l kes- irako] mitci ahn-ass-ta. (Kor.)

**Yuehan bu/cai xiangxin Mali zhidao mingtian hui likai.* (Chin.)

*Er hat *(nicht) sonderlich viel gegessen.* (German)

he has not particularly much eaten

'He did not eat that much.'

*Ich glaube/*freue mich nicht dass er sonderlich viel gegessen hat.*

I believe/*look.forward not that he particularly much eaten has

John doesn't believe that Mary has visited her in at least two years.

*Juan no cree/*dijo que María la ha visitado en al menos dos años.* (Sp.)

*Ion nu crede/*spune că Maria a vizitat-o de cel puțin doi ani.* (Rom.)

*Az ne vjarvam/*kazah če Meri ja e poseštavala pone ot dve godini.* (Bulg.)

'I don't believe/*didn't say Mary has visited her in at least two years.'

**John [Mary o-nu en az iki yıl ziyaret et-ti] san-mı-yor.* (Turkish)

Bošković: *even in languages where the NPI test fails negation is interpretable in the lower clause: the example below has the atheist (non-agnostic) meaning 'Ivan believes God doesn't exist' (the same holds for Korean, Japanese, Turkish, Chinese, Russian, Polish, and Slovenian).*

Ivan ne vjeruje da bog postoji. (S-C)

= 'Ivan believes God doesn't exist.'

Bošković:

This suggest a three way split among verbs:

(a) *negation interpreted in the lower clause and strict NPIs licensed under NR (possible only for some verbs in languages with articles),*

(b) *negation interpreted in the lower clause, strict NPIs not licensed,*

(c) *no NR at all.*

Generalization 5: *Superiority and Multiple Wh-Fronting*

- Superiority effect: in MWF questions the order of question words reflects the hierarchy of arguments (the external argument precedes the internal argument).

  *Koj kogo vižda?/*Kogo koj vižda?* (Bulg.)

  who whom sees

  a. *Ko koga vidi?* (S-C)

  b. *Koga ko vidi?*

- Generalization: MWF languages without articles don't show superiority effects.

- No superiority effect: Polish, Czech, Russian, Slovenian, Mohawk.
- Superiority effect: Romanian, Bulgarian, Macedonian, Basque, Yiddish.
- Bošković: *Hungarian is an exception (it has articles and no superiority), which doesn't violate the generalization. Interestingly, Watanabe (2003) suggests Hungarian traditional definite article is not a D-element, which casts doubt on its DP status.*

Generalization 6: *Clitic Doubling*

***Le** di un regalo a mi madre.* (Spanish)
CL I-gave a gift to my mother
'I gave a gift to my mother.'
*A mis invitados siempre **les** ofrezco café.*
to my guests always CL I-offer coffee
'I always offer coffee to my guests.'

- Generalization: only languages with articles may allow clitic doubling.

CD is possible in Bulgarian and Macedonian:

Ivo go napisa pismoto. (Bulg.)

Ivo it wrote the letter

Other Slavic languages have no CD:

**Jan go napisał ten list.*

CD is allowed in Albanian, Macedonian, Bulgarian, Greek, Somali, Spanish, French (some dialects), Catalan, Romanian, Hebrew, Arabic, Dutch (some dialects).

Generalizacja 7: *Adnominal Genitive*

- Willim (2000): article-less languages do not allow two adnominal genitival arguments.

  Hannibals Eroberung Roms (German)

  **podbicie Rzymu Hannibala*

- Generalization: Languages without articles don't allow transitive nominals with two genitives.

- Bošković: the generalization concerns only nominal arguments, not possessives. *I ignore for obvious reasons languages such as Japanese which allow multiple identical case constructions.*

- Two genitives: English, Arabic, Dutch, German, Catalan (the genitive is realized via a clitic/suffix or a dummy P).
- One genitive: Polish, Czech, Russian, Latin, Serbo-Croatian, Chinese, Quechua, Turkish.
- What about Lithuanian?

  Kolumbo Amerikos atradimas

  Columbus-GEN America-GEN discovery-NOM

  'Columbus's discovery of America'

Generalization 8: *Superlatives*

- Živanović (2006): the following English sentence has the majority reading where more than half the people drink beer:

  Most people drink beer.

  = ‘more than half the people drink beer’

  Največ ljudi pije pivo. (Slovenian)

  ≠ ‘more than half the people drink beer’

  Najwięcej ludzi pije piwo. (Polish)

  ≠ ‘większość ludzi pije piwo’

Živanović (2006):

- majority reading: English, German, Dutch, Hungarian, Farsi, Romanian, Macedonian, Bulgarian;
- relative reading: Chinese, Turkish, Czech, Polish, Slovenian, Serbo-Croatian, Punjabi.

Generalization: Only languages with articles allow the majority superlative reading.

Generalization 9: *Head-Internal Relatives and Locality*

- *Head-internal relative clauses* (HIRC): relative clauses that contain their head (the construction appears in some languages of North America and Western Africa).
- The pattern:

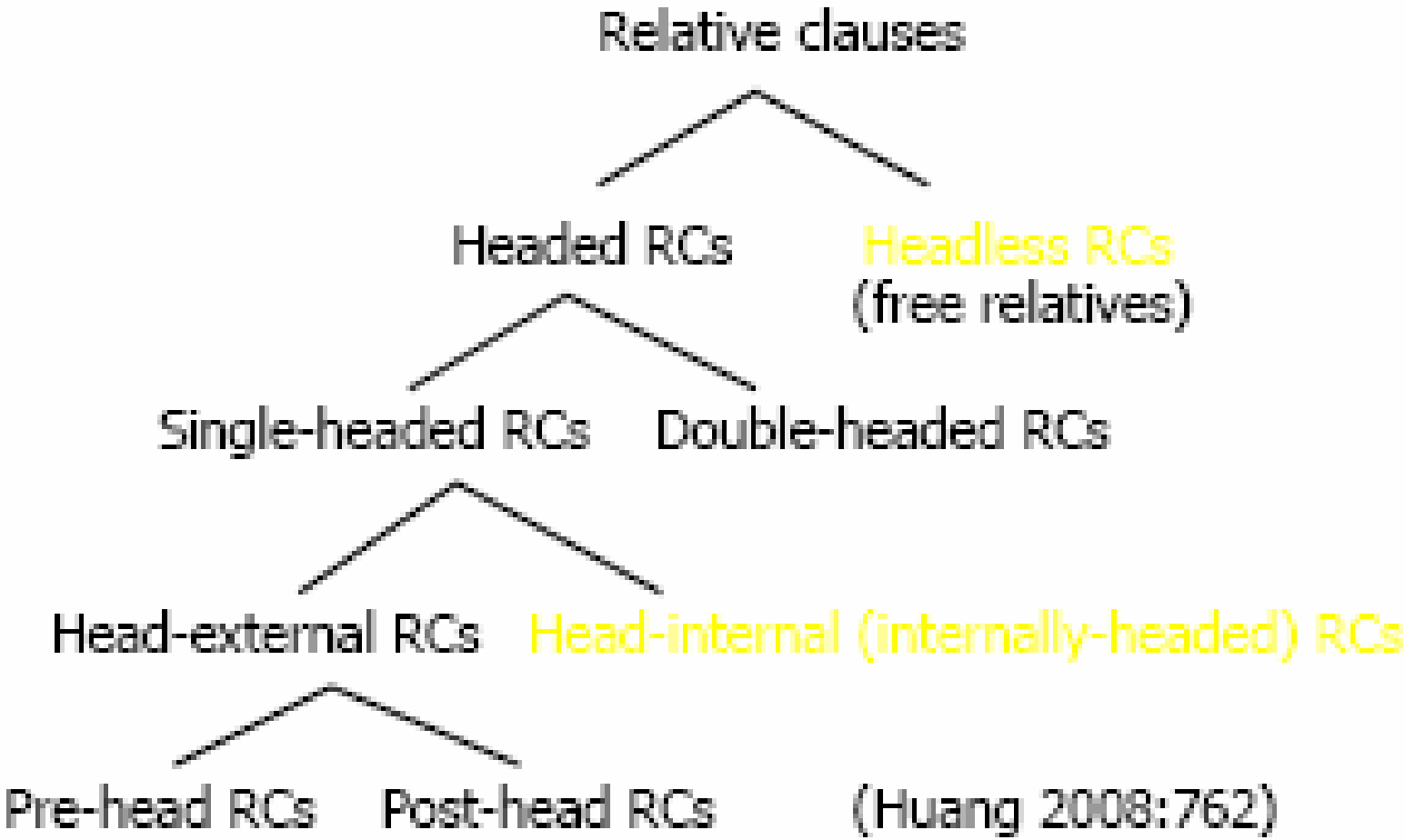
  HERC: I trust people, whom I know _____

  HIRC: I trust _____, whom I know people

people – head

_____ – gap

Typology of relative clauses (Masayoshi Shibatani):



Kuroda (1976) – Japanese:

- HIRC:

  Taroo=wa [ringa=ga sara=no ue=ni atta]=no=o totte, poketto=ni ireta

  Toro=TOP apple-NOM plate=GEN top=LOC existed=NMZ=ACC take.CON pocket=to put.PAST

  'Taro picked up an apple which was on a plate and put it in a pocket.'

- HERC:

  Taroo=wa [sara=no ue=ni atta] ringo=o totte, …

  Taro=TOP plate=GEN top=LOC existed apple=ACC take.CON

  'Taro picked up an apple which was on a plate and…

- Watanabe (1992): HIRC possible only in languages that allow *wh-in-situ*.
- Kuroda (1974): HIRC possible only in SOV languages.

The phenomenon of islands:

in some constructions there are no limits as to the distance between the noun and the gap that corresponds to that noun:

This is the book [*which* [*John recommended* ____]].

This is the book [*which* [*I think* [*John recommended* ___]]].

This is the book [*which* [*I think* [*you said* [*John recommended* ___]]]].

However, some constructions do not allow gaps. They are referred to as *extraction islands*, or simply *islands*:

I think that John left.

**Who do you think that ____ left?*

You are reading a book that John wrote.

Who are you reading a book that ____ wrote?

Lakhota (an HIRC language) – no island effect:

[[*Wichota wowapi wą yawa pi cha*] *ob wo?ųglaka pi ki*] *he L.A. Times e.*

many-people paper a read PL ind with we-speak PL the that L.A. Times be

‘The newspaper that we talk to many people who read (it) is the L.A. Times.’

Bošković:

- HIRs in Japanese, Quechua, Navajo, and Mohawk are island sensitive, while those in Mojave and Lakhota are not (Basilico 1996, Watanabe 2004, Baker 1996). Interestingly, the former lack articles, while the latter have them.

  Generalization: HIRs are island sensitive in languages without, but not in those with articles (admittedly, the language corpus is limited here).

Generalization 10: *Polysynthesis*

- Polysynthetic languages: languages in which words are usually composed of relatively many morphemes.
- Isolating languages: low morpheme-to-word ratio.
- Synthetic languages: higher morpheme-to-word ratio.
- Polysynthetic languages: extremely high morpheme-to-word ratio.
- Mark C. Baker - polysynthesis is a parameter: all phrasal heads must be marked with either agreement morphemes of their direct arguments or else incorporate these arguments.

Example (Wikipedia):

anisaxtuxtyfkagatapixnakakjagaka (Yupik)

'It happened that I wanted to finally force him to go and bring snow.'

Some polysynthetic languages:

- Siberia: Chukotko-Kamchatkan languages,
- America: Algonquian, Eskimo-Aleut, Iroquoian, Salishan, Uto-Aztecan, Mayan, Quechuan, Tupi-Guaraní,
- South Asia: Munda,
- Australia: Bininj Gun-wok, Gunwinyguan, Ngalakgan, Rembarrnga, Tiwi.

Generalization: Polysynthetic languages do not have articles.

Additional Bošković's observation (after Despić): since English possessives are located in the Spec of PossP, which is immediately dominated by DP, the DP prevents the possessive from c-commanding anything outside of the subject. The contrast between English and S-C can be accounted for if the DP is missing in S-C:

His_i father considers $John_i$ highly intelligent.

$John_i$'s father considers him_i highly intelligent.

**$Njegov_i$ otac smatra $Marka_i$ veoma pametnim.*

However, in Polish the following sentence is fine:

Jego$_i$ ojciec uważa Marka$_i$ za bardzo inteligentnego.

Bošković: this is because Polish has genitival possessor phrases, and not real possessives!

Still, what about Ukrainian (a language with adjectival possessives: *їхній брат, їхня сестра, їхнє дитя, їхні друзі*).

Їхній батько вислав Марка и Петра до Америки.

Their$_i$ father sent Mark and Peter$_i$ to America.

4.1. Case study: determiners in PJM

Polish Sign Language (*Polski Język Migowy*, hereinafter **PJM**) is an understudied natural sign language used by the Deaf community in Poland. Its grammatical structure is completely **different** from that of spoken Polish (and from the structure of SJM, i.e. Signed Polish).

In what follows I will discuss the grammatical properties of the word class of '**pronouns**' in that language, and try to account for their properties within the DP model.

Contemporary sign linguistics:

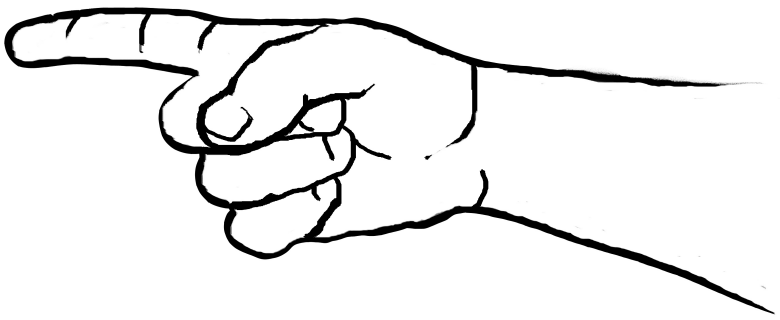
- sign languages are **not** simply mimetic or grounded in **non-linguistic gesturing**,
- what really matters are those properties of sign languages that are also **typical** for spoken languages (such as various grammatical phenomena, e.g. division into **word classes**),
- the implicit assumption of this line of research (dubbed the '**iconicity fallacy**' by Thoutenhoofd (2000)): being gestural (iconic) means being non-conventional and non-arbitrary, which in turn means being non-linguistic.

4.2. ‘Demonstratives’ in PJM

What is the status of **pointing** in sign languages?

One of the most characteristic typological features of sign languages around the world is a close relationship between **indexical pointing** and **deixis**.

We focus on PJM constructions containing the **pointing sign** (an index handshape directed to a point in the signing space).



Should the indexical be viewed as a **grammaticalized** linguistic element or a mere **gesture**?

The most obvious categorial interpretation: the sign in question is a **pronoun**. Its use is clearly deictic. It may be treated as analogous to demonstratives in spoken languages.

The pointing sign may be used in two ways: it may specify the reference of an **accompanying noun** (INDEX GIRL = ‘this girl’) or stand **alone** (INDEX = ‘this one’).

Problem: in the latter use the demonstrative is **indistinguishable** from ‘personal pronouns’.

4.3. ‘Personal pronouns’ in PJM

One possibility of analysis: PJM has a **tripartite** system of personal pronouns (see also Friedman (1975), Klima & Bellugi (1979) for ASL):

- 1st person – an index handshape directed towards the **speaker**;
- 2nd person – an index handshape directed towards the person **spoken to**;
- 3rd person – an index handshape directed towards one of a potentially **infinite number of points** in the signing space, previously associated with the referent in question.

In this approach, the signing space should be interpreted as a **morpho-phonological** feature – the place of articulation is one of the contrastive diacritics of a sign.

Some researchers: ‘personal pronouns’ in sign languages are inflected for number (an arc = plurality).

By analogy, one would also need to say that demonstratives are also inflected for number.

Meier (1990) argues that sign languages have a two-person pronominal system – **first** and **non-first**:

- first person has a **default** location (center of the chest), whereas for second/third person there is no single default location;
- locations used for non-first person reference are **nonlistable** (fully gradient – the signer can point to anywhere in the environment), which makes them impossible to analyze in terms of discrete linguistic features.

A different view: Liddell (2003):

- the use of space for pointing is purely **gestural** (gradient) rather than linguistic; all pronouns are simply deictic points;
- pronouns (and verbs) "point to" their referents in the same way as hearing people point to locations while gesturing.

The facts from PJM seem to support this view:

- there are no reasons to distinguish first and non-first person; even "first-person" pronouns may be subject to **displacement**, e.g. when telling a story about oneself; however, this **doesn't mean** that pointing is nonlinguistic!

Three possibilities:

- $INDEX_1$ $CLASSIFIER_{SITTING\text{-}LOCATION\alpha}$

  $POSS_1$ SISTER $CLASSIFIER_{SITTING\text{-}LOCATION\beta}$

  $INDEX_1$ $GIVE_{LOCATION\alpha\text{-}LOCATION\beta}$
- $INDEX_1$ $CLASSIFIER_{SITTING\text{-}LOCATION\alpha}$

  $POSS_1$ SISTER $CLASSIFIER_{SITTING\text{-}LOCATION\beta}$

  $INDEX_\alpha$ $GIVE_{LOCATION\alpha\text{-}LOCATION\beta}$
- $INDEX_1$ $CLASSIFIER_{SITTING\text{-}LOCATION\alpha}$

  $POSS_1$ SISTER $CLASSIFIER_{SITTING\text{-}LOCATION\beta}$

  $GIVE_{LOCATION\alpha\text{-}LOCATION\beta}$

Cormier (2007): pronouns in sign languages evolve (they gradually lose their indexical/gestural character and become more conventionalized).

Example from ASL: the progression of the sign WE from a series of pointing signs to each referent (ME + HIM + HER + HIM + YOU … + ME) to the current sign that consists of only two points on the signer's chest:

This kind of lexicalization has not taken place in PJM. Therefore, we can see no reason to assume that PJM pointing signs are substantially different from pointing gestures in oral communication.

see: Trevor Johnston (in a couple of minutes))

However, this **doesn't mean** that pointing has no grammatical function!

Interestingly, the basic form of the pointing sign is only used **deictically** (to point to an entity available in the signing space), and not discourse-anaphorically (coreferential to some antecedent in the preceding context).

In the latter context a different sign (ANAPHOR) is used.

4.4. Analysis: DP in PSL

We interpret the fact that the PJM 'personal pronouns' and 'demonstratives' are based on **the same** handshape as an indication that they are instances of the same grammatical element, which is the **only** 'pronoun' that PJM has.

Its proper interpretation is derived **contextually** – similarly to spoken languages:

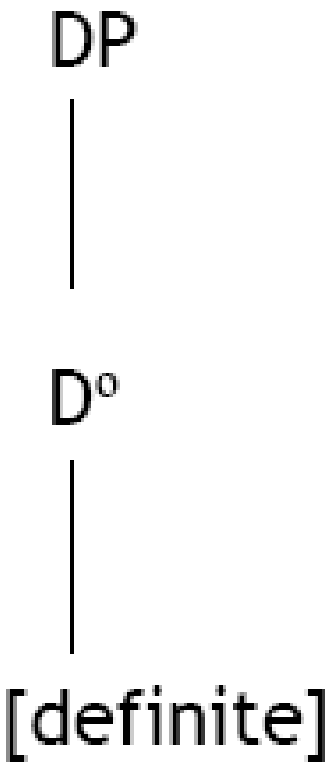
She$_1$ *and she*$_2$ *are both students.*

The exact denotation is **not** a formal feature – what we have is only [3rd person singular feminine definite].

Unlike its counterparts in spoken languages, the PJM pointing sign it is **not** associated with person or number features. The **only** formal feature associated with the pointing sign is that of **definiteness** (therefore, it resembles definite articles in spoken languages).

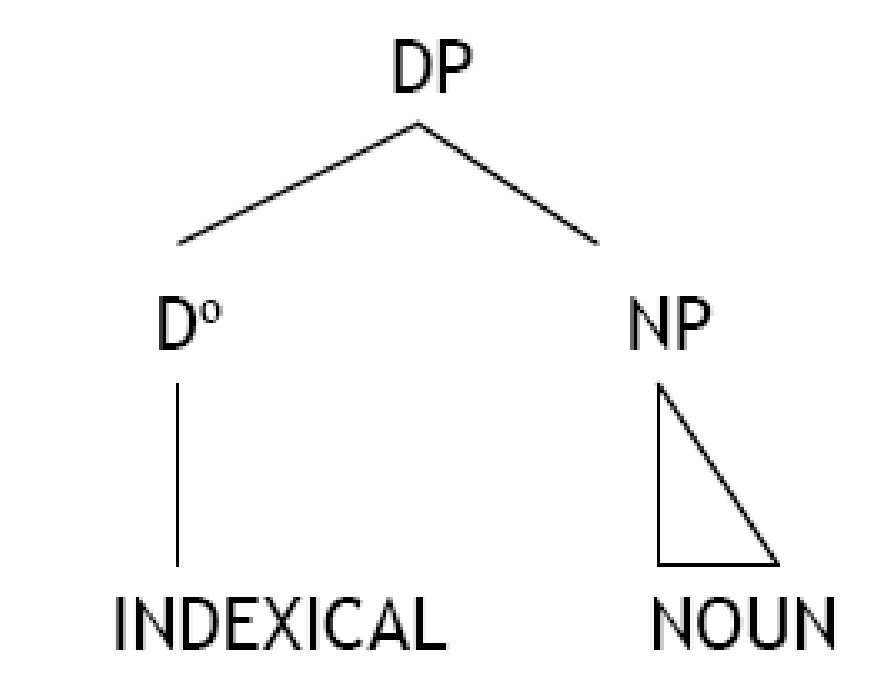
The problem of categorial interpretation: demonstrative/article/determiner???

If we assumed Abney's (1987) theory of the **Determiner Phrase**, the structure for the PJM pointing sign would look as follows:



PJM sequences such as (1) could be analyzed as follows: the indexical occupies the head of **DP** (as a reference marker).

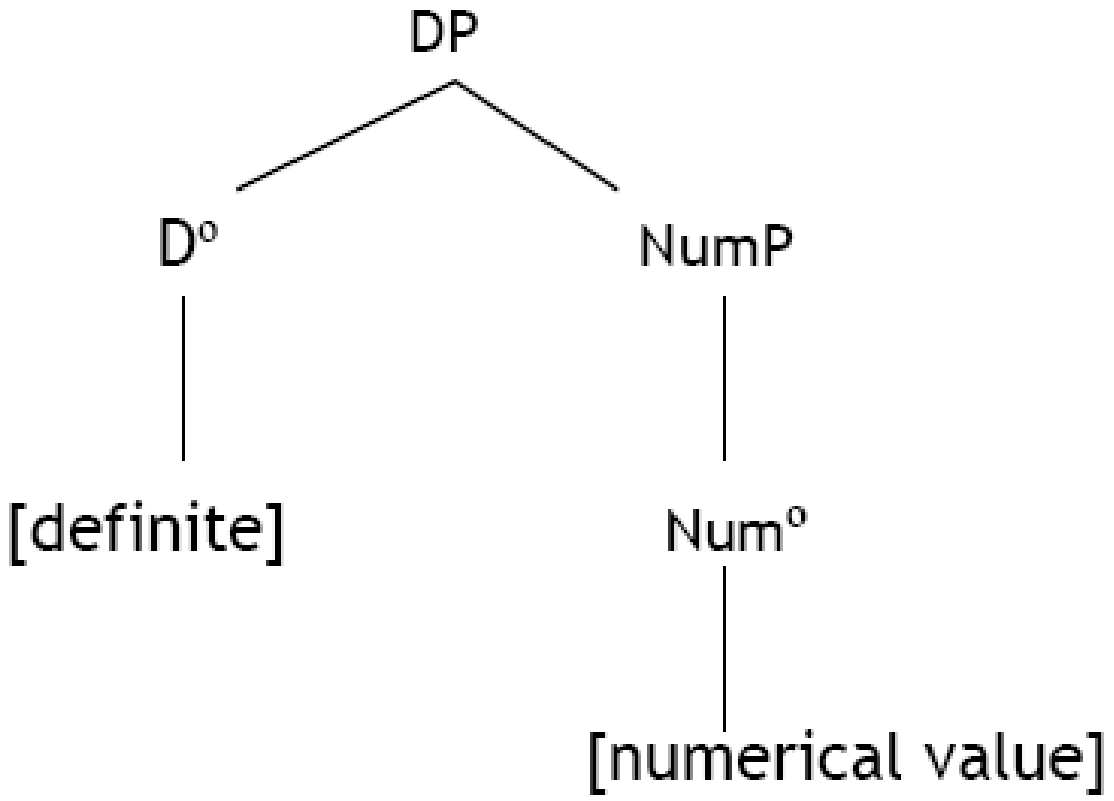
(1) INDEXICAL NOUN



There is no **separate** class of personal pronouns in PJM. Diessel (2006) observes that, crosslinguistically, personal pronouns are historically **derived** from demonstratives, meaning that the latter are more basic and belong to the universal set of core vocabulary.

Traditional view in sign linguistics: personal pronouns in sign languages may be **inflected** for number (according to some linguists, in PJM there is not only [singular] and [plural], but also [trial] and [quadral]).

Our view: structures such as ‘three of them’ or ‘four of us’ should not be treated as instances of inflection, but rather as instances of **numeral incorporation**, with the followind structure:



Different classes of pronouns in PJM?

Who did it?	[answer: *He*.]
Which car is broken?	[answer: *This one*.]
What did you buy?	[answer: *This*.]
Whose pen is this?	[answer: *His*.]
How should I put it?	[answer: *Like this*.]
How much milk did you buy?	[answer: *That much*.]
Where is your pen?	[answer: *There*.]

In PJM the answer
may always be the same:

Different classes of pronouns in PJM?

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Which car is broken? [answer: *This one*.]
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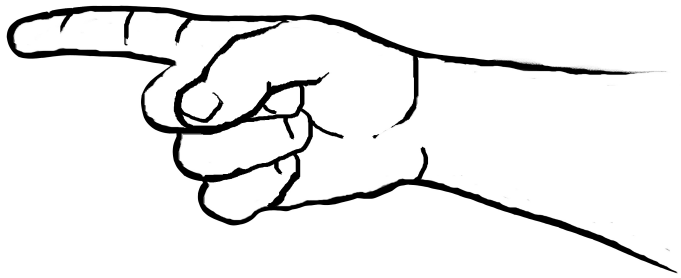
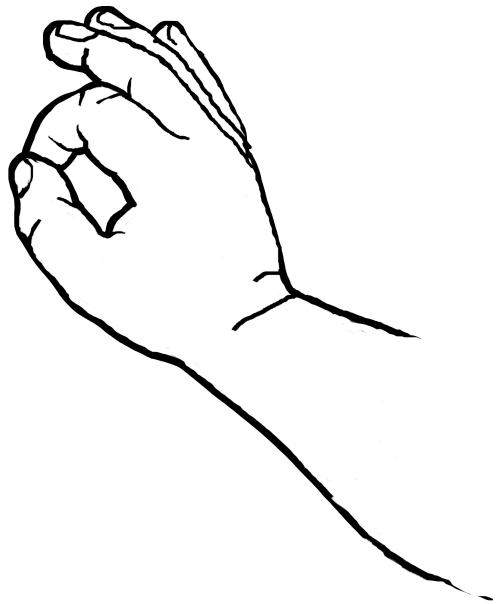
In PJM the answer
may always be the same:
THE DETERMINER



4.5. Further development of the pronominal system of PJM

Possessives might also be expressed with the following handshape:



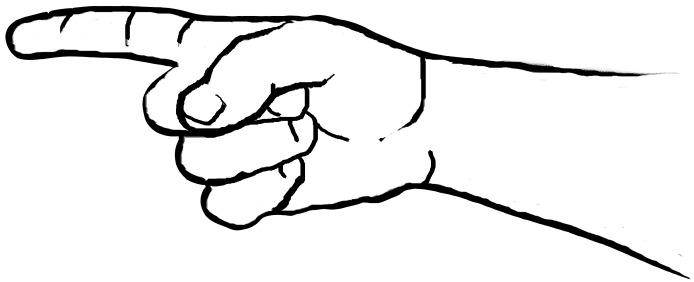
‘my’
(PJM)

Again, the problem of “person inflection”:

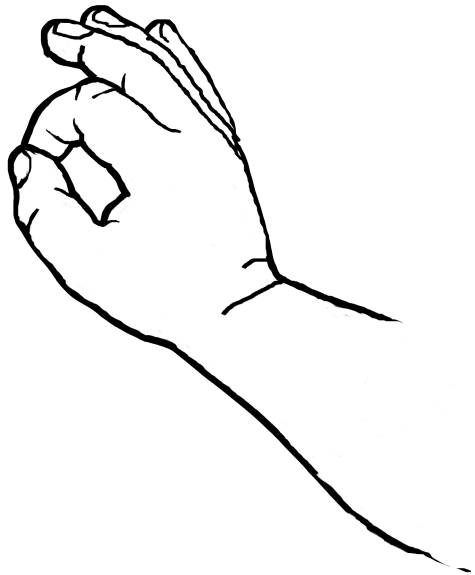
- typical approach: there are several possessive signs: ‘my’, ‘your’, ‘his’ etc.

What is the featural makeup of the possessive?

- our view:



[+definite]



[+definite, +possessive]

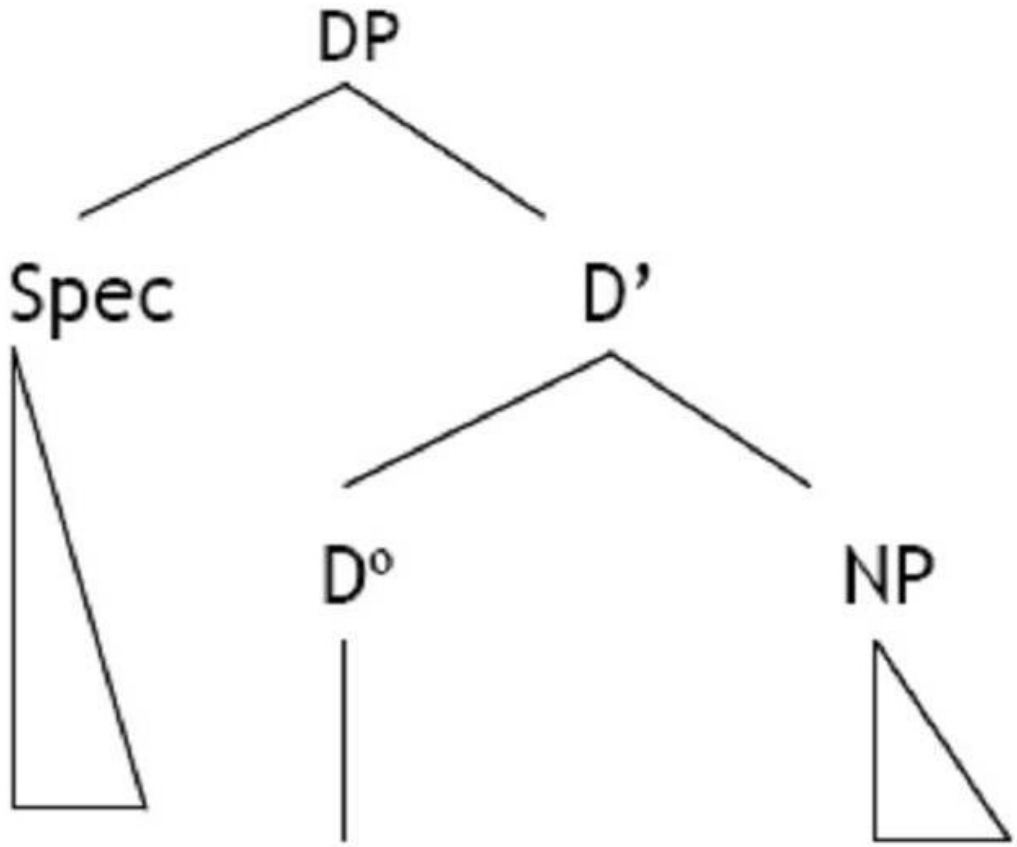
Dutch: possessor phrases are analyzed as specifiers of the possessive pronoun that is taken to project a D head in the nominal structure (Corver (1990)):

de jongen z'n fiets (Dutch)

the boy his bike

'the boy's bike'

[DP *de jongen* [D *z'n* [NP *fiets*]]]



English: the girl 's sister

PJM: GIRL POSS SISTER

4.6. Classifiers

Classifiers seem to be the only category in PJM that could be compared to pronouns in spoken languages (since they convey a complex of features and refer to entities).

Thank you!

Questions, comments:

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