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Theme 7: NOUN PHRASE STRUCTURE
Working Paper No. 4

Edith A. Moravcsik
DESCRIPTORS OF
NOUN-PHRASE-INTERNAL STRUCTURE

August 1990

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1. Introduction

The central goal of this paper is to offer an outline for a comprehensive description of noun-phrase-internal structure with the main purpose of highlighting crosslinguistic similarities within this structural domain.

The term **noun phrase** (NP) will be used in reference to any structure that fulfils the following two conditions:
a/ it can stand as a predicate argument
b/ either it consists of a noun and at least one other word that is syntactically optional or it is a selectional equivalent of such a construction.
All such argument structures will be of interest whether bare, case-inflected, or adpositional. The domain of noun phrase as defined here will thus include pre- and postpositional phrases as well. The term **descriptor** will refer to disjunctive grammatical statements, such as "The article precedes or follows the noun." or "There is or there is no plural marker.". A coherent set of descriptors will be referred to as a **checklist**.

Section 2 will present the proposed general checklist in outline. Section 3 will then discuss the criteria adopted here for the evaluation of checklists designed for typological comparison. The detailed checklist is contained in section 4 followed by three shorter lists each elaborating on special aspects of noun-phrase-internal structure (section 5). The general checklist will be tried out on Hungarian in section 6. The closing paragraphs (section 7) offer pointers for further work.

2. General checklist in outline

Here is the table of contents of the general checklist proposed.

0. General information about the language
1. Does the language have noun phrases?
2. Inventory of noun phrase heads and dependents and their subtypes
3. The internal structure of noun phrase heads and dependents
4. Selection and order among subtypes of each dependent type
5. Selection and order among types of dependents
6. Selection and order between heads and dependents
7. Comments on meaning
8. Comments on sound form
9. Comments on similarities among noun-phrase-internal structures and between noun-phrase-internal and noun-phrase-external ones

The checklist is based on the assumption that a structural domain - such as noun-phrase-internal structure - is appropriately characterized by specifying the following information:

a/ the **inventory** of constituent types and subtypes that occur within the construction in question

b/ **selectional constraints** among constituent types and subtypes
c/ **linear order** of cooccurring constituents
  aa/ adjacence relations
  bb/ precedence relations
d/ comments on **meaning**
e/ comments on **sound form**
f/ comments on **paradigmatic relations**: similarities and differences between the construction in question and other constructions in the language

The checklist adopts this scheme in that Parts 1-6 of it are devoted to inventory, selection, and order; and Parts 7, 8, and 9 deal with meaning, sound form, and paradigmatic similarities, respectively.

Structural information is distributed over Parts 1-6 as follows. Rather than specifying the entire inventory of noun-phrase-internal components - bound morphemes, words, phrases, and clauses - all in a single section, and specifying all selectional constraints and all linear constraints in one single section each, it seemed best to structure the checklist according to partonomic levels. Part 2 identifies the highest-level constituents of the noun phrase: heads and dependents. Part 3 takes them as wholes and probes into the inventory, selection, and order constraints holding within each. Parts 4-6 then take these constituents as parts and specify cooccurrence and order constraints among them. Here follows a more detailed overview of the checklist.

Part 0 General information about the language records name, area, number of speakers, genetic affiliation, and some conspicuous grammatical characteristics for the language as well as the sources used for grammatical information.

Part 1 Does the language have noun phrases? contains a single descriptor having to do with the presence or absence of noun phrase structures in the language. The rest of the checklist assumes an affirmative answer.

Part 2 Inventory of noun phrase heads and dependents and their subtypes lists basic grammatical categories - Nouns, Pronouns, Numerals, Quantifiers, Articles, Verbs, Adverbs - and their major subtypes (Personal Pronouns, Reflexive Pronouns, etc.). It asks for the following information:
- morphological composition and independence: is the category in question expressed in the language as affix, clitic, word, phrase, and/or clause?
- function within the noun phrase: does the category function within the noun phrase as head or dependent or both; if it functions as dependent, is it a determiner, quantifier, modifier, negator, interrogators, intensifier, and/or complement?

Part 3 The internal structure of heads and dependents takes up each of the categories of Part 2 and lists descriptors concerning their internal structure. The descriptors pertain to the inventory of components, their selectional constraints, and their linear order.
For example: "Noun words may be derived or compounded."
"Relative pronouns precede the rest of the clause."

Part 4 Selection and order among subtypes of each dependent type has to do with cooccurrence and linear constraints among subtypes of dependent types.
For example: "Two interrogatives may not cooccur."
"Two determiners, such as the definite article and the demonstrative adjective, may cooccur and if they do, the article precedes the demonstrative adjective."

Part 5 Selection and order among types of dependents probes into cooccurrence and linear constraints between dependent types.
For example: "Determiners and interrogatives may not cooccur."
"Quantifiers precede modifiers."

Part 6 Selection and order between heads and dependents takes up cooccurrence and linear order on the highest partonomic level in noun phrases: between the head or heads and its/their dependents.
For example: "Determiners can occur with common nouns, but not with proper nouns."
"All one-word dependents precede the head."

Parts 7 Comments on meaning and 8 Comments on sound form allow for semantic and phonological observations regarding noun phrases and their constituents.
For example: "Postposed adjectives have a compositional interpretation; preposed ones may have non-compositional interpretations."
"The proximate demonstrative contains a front vowel and the distal one a back vowel."

Part 9 Comments on similarities among noun-phrase-internal structures and between noun-phrase-internal and noun-phrase-external ones is the depository of information on the comparison of structures.
For example: "The distal demonstrative is homonymous with the conjunction used in noun clauses."
"All arguments of action nominals are case-marked the same way arguments of the corresponding clauses are."

3. Discussion

Grammars typically include a section on the internal structure of noun phrases. Although some basic information is likely to be conveyed by all such descriptions - such as whether the adjective follows or precedes the head noun, whether numerals do or do not cococcur with classifiers, or whether there is or isn't any definite article in the language concerned - descriptions nonetheless differ in several ways. They differ for example in breadth of coverage (e.g., whether less typical noun phrases, such as clausal ones, are described or neglected), in depth of coverage (e.g. whether the existence of gender is simply noted or all of its subclasses specified), and in degree of abstractness (e.g.

whether the description involves multiple levels of syntactic representation or not).

The checklist to be proposed in this paper will in effect amounts to a table of contents of a chapter on noun-phrase-internal structure. Degree of breadth, depth, abstractness and most other choices regarding contents and form will be dictated by four desiderata: **cross-language utility, cross-theoretic utility, explicitness,** and **practicability**. These four considerations would appear to be criterial for the evaluation of any grammatical checklist regardless of the particular domain it probes into and, mutatis mutandis, perhaps of any set of scientific descriptors whether in or outside grammar. Let us consider each criterion in turn.

a/ CROSS-LANGUAGE UTILITY

A checklist is minimally useful from a cross-language, or typological, point of view if it **allows comparison** between the structures of any two languages. For example, if a checklist does not list the presence or absence of classifiers, it will fail to be even minimally useful since it will simply miss out on a point of crosslinguistic similarity or difference. A checklist has maximal typological usefulness if it **maximizes similarities** among languages as opposed to their differences. For example, if the only question the checklist asks about adjective-noun constructions is whether the languages in question have "Adj & N" structures - that is, structures consisting of an adjective and a noun with the adjective preceding the noun - it will force a negative answer if one of the languages has preposed adjectives and the other postposed ones and thus miss out on the common denominator of the sequentially different constructions: that both languages have cooccurring adjectives and nouns.

The desideratum of **minimal typological utility** means that the checklist should be **comprehensive**. What is meant by comprehensiveness is that all possible aspects of NP-internal structure in all known languages should find their place in the resulting checklist. Thus, the list must include an entry regarding the possibility of classifiers occurring within NP-s in order to cover languages like Vietnamese and Japanese. Similarly, it must list as a possible point of crosslinguistic comparison classifiers occurring or not occurring with demonstrative adjectives; and classifiers preceding or following the numerals that they occur with.

The desideratum of **maximal typological utility** means that the checklist should be **analytic**. What is meant by analyticity is that, in addition to more complex properties (properties with a narrow distribution), the checklist should also include elementary ones (properties with a wide distribution). This is because languages that differ in their more complex grammatical patterns may nonetheless be similar with respect to the components of these patterns.

Let us explore the implications of the analyticity requirement in more detail. Analicity dictates that **constituents** be characterized in terms of

a/ both **subtypes** (such as "neuter gender") and **types** (such as "gender"); and
b/ both **as parts** (subconstituents, such as "possessive affix") and also as **wholes** (constituents, such as "possessive phrase").

Furthermore, it requires that **constructions** be described in terms of

c/ separate descriptors about the **occurrence** of categories in a language as distinct from their **cooccurrence**;
d/ separate descriptors about the **cooccurrence** possibilities of constituents as distinct from their **linear ordering**; and, within linear order, in terms of
e/ separate descriptors about the **adjacence** of constituents as distinct from their **precedence**.

And, finally, it follows from the requirement of analiticity that **meaning-form relations** by characterized by

f/ separate descriptors pertaining to **morphosyntactic form** as opposed to details of **sound form** and details of **meaning**.

Each of these point will be expanded on below.

- types and subtypes (a/):

Languages may differ in the choice of subtypes - e.g. in having or not having sex gender - while having the common feature of the existence of a type, such as gender. This is shown in (1). + stands for "two languages are similar with respect to the property indicated on the left"; - stands for "two languages differ with respect to the property indicated on the left". I, II, III, and IV are language types.

(1) Possible similarities and differences between two languages regarding types and subtypes

	I	II	III	IV
type	+	+	-	-
subtype	+	-	+	-

This chart illustrates the four logically possible ways in which two languages may compare with respect to having types and subtypes: they may resemble in having the same type and the same subtypes (I), they may resemble in having the same type but different subtypes (II), they might perhaps resemble in having the same subtypes that belong to different types (III); and they may differ in not having either the same type or the same subtypes (IV). If we only give subtypes but not types, we capture similarities between languages in terms of subtypes (cases I and III) but we miss out on instances where two languages differ in the subtypes but have the same types (II); and if we only give types but not subtypes, we capture crosslanguage similarities involving types (I and II) but then we miss out on instances where two languages differ in the types but nonetheless have the same subtypes (III). If we specify both types and subtypes, similarities of both kinds may be captured.

- wholes and parts (b/):

The argument is analogous regarding wholes and parts. Constructions of two languages may be different with respect to

the internal structure of a phrase – such as whether a possessive phrase includes an agreement affix on the possessee or not – while being similar in having phrases of this kind to begin with.

(2) Possible similarities and differences between two languages regarding wholes and parts

	I	II	III	IV
whole	+	+	–	–
part	+	–	+	–

In order to maximize similarities among languages, we want to be able to catch not only cases where two languages have the same wholes and the same subparts (I) but also cases where the whole is the same in two languages but the subparts are different (II) or where a given subpart – present in both languages – belongs to different wholes (III).

– occcurrence and cooccurrence (c/) and cooccurrence and order (d/)

The need to keep separate track of occcurrence and cooccurrence, and of cooccurrence and linear order is in each instance called for by the fact that members of each of these pairs of structural properties do not necessarily co-vary: two languages may be similar with respect to one but different with respect to the other.

Of the three phenomena of occurrence, cooccurrence, and linear order, linear order is the most complex in that it presupposes the cooccurrence of at least two elements; and cooccurrence is intermediate in complexity in that it is presupposed by linear patterns but it in turn presupposes the occurrence, or paradigmatic availability, of at least two elements in the language. (3) charts the ways in which two languages may resemble and differ from each other with respect to occcurrence, cooccurrence, and ordering.

(3) Possible similarities and differences between two languages regarding occcurrence, cooccurrence, and order

	I	II	III	IV	*V	*VI	*VII
linear order	+	–	–	–	+	–	+
cooccurrence	+	+	–	–	–	+	+
occcurrence	+	+	+	–	–	–	–

As shown here, there are four logical possibilities of crosslinguistic similarities and differences, with the remaining three other combinations of plusses and minusses (V, VI, and VII) logically impossible. Each of the three types of pattern – occcurrence, cooccurrence, and ordering – constitutes a level of potential crosslinguistic similarity. If two languages have the same order pattern for two constituents, they will, by definition, resemble each other also in allowing for the cooccurrence of those two elements and, again by necessity, for their occcurrence. The reverse is not true, however; if two languages differ in the order of constituents, they may still resemble in allowing for the cooccurrence of those constituents; and if they differ in the selectional constraints associated with a constituent type, they may still remember in having that constituent type. In other words, cooccurrence patterns will "catch" more similarities among languages than linear patterns; and inventory statements will capture more similarities than cooccurrence statements.

Here is an exemplification of the four degrees of cross-language similarity on the example of demonstrative adjectives and articles.

I: Hungarian and Language X: both place the Demonstrative Adjective before the Article ("this the boy" for 'this boy'); this also means they both allow for the cooccurrence of the two and for the occcurrence of each

II: Hungarian and Language Y: they differ in the linear order of these two constituents in that Hungarian places the Demonstrative Adjective before the Article ("this the boy") and Language Y places it after it ("the this boy"); but they both allow for the cooccurrence of the two and, perforce, for the occcurrence of each

III: Hungarian and English: they differ in the cooccurrence possibilities of the two elements (and thus, by necessity, also in the presence and absence of a linear pattern) since Hungarian allows them to cooccur but English does not; but they are similar on the level of occcurrence, or inventory, in that both have articles and demonstrative adjectives

IV: Hungarian and Russian: they differ already on the level of inventory (and thus, by necessity, also on the level of cooccurrence and linearization patterns) in that Hungarian has both Demonstrative Adjective and Article, while Russian has no Article

– adjacence and precedence (e/):

Linear order itself has two components: **proximity** and **precedence**, and the linear arrangement of two constituents may resemble crosslinguistically in either or in both, as shown in (4).

(4) Possible similarities and differences between two languages regarding adjacence and precedence

	I	II	III	IV
adjacence	+	+	–	–
precedence	+	–	+	–

I is illustrable by a case where the relative clause directly follows the head noun in two languages. II is a case where the relative clause is adjacent to the head noun in both languages but it precedes the head in one and follows it in the other. III is a case where in both languages the relative clause follows the head but in one it follows directly and in the other it may or must be "extraposed", following it at some distance. Finally, IV is a case where the two patterns resemble

neither by precedence nor by adjacence: the relative clause immediately precedes the head in one language and it non-immediately follows it in the other.

If proximity and precedence are not separated, only cases where A is both adjacent to B and also precedes it in two languages can be shown as a commonness between the two languages (I). If adjacence and precedence are separate descriptors, the similarity of A & B and B & A can also be shown (the two differ by precedence but not by proximity since A and B are adjacent in both cases; cf. II), as well as the similarity of A & B and A & C & B, where the common denominator of the two patterns is precedence: A in both cases precedes B although in one the two are adjacent and in the other they are not (III).

- meaning-form relations (f/):

Two languages may resemble each other in both meaning and form (such as in having clitics that express tense), but they may also show similarities only in form (e.g. by having clitics that stand for different meanings) or only in meaning (e.g. by having some expression of tense). (5) presents the logical possibilities.

(5) Possible similarities and differences between two languages in form and meaning

	I	II	III	IV
form	+	+	-	-
meaning	+	-	+	-

If we pay attention only to form and not to meaning, or only to meaning and not to form, or if we talk about meaning and form as a single descriptor rather than separating the two, some of the three types of crosslinguistic resemblances will slip through our fingers. If, however, meaning and form are discussed both separately and in their correspondence relations, all three cases of crosslinguistic similarity (I, II, and III) can be captured.

After this discussion of cross-language utility, let us turn to the other three proposed evaluation criteria for grammatical checklists.

b/ CROSS-THEORETICAL UTILITY

Since the checklist is to be accessible and of interest to all linguists regardless of theoretical preference, the categories and relations employed should all be undisputed. For example, the vocabulary of the checklists should not include items such as "trace" or "movement" - not because these concepts are regarded as void of possible explanatory or descriptive value for single-language description and/or for typological comparison, but because they are based on special assumptions about the nature of syntax and thus will not be readily interpretable and/or acceptable for linguists working outside the government-and-binding tradition.

Here is a set of basic concepts which I believe are relied on in all syntactic approaches and whose utilization is therefore not likely to be controversial. (A and B are constituents.)

- taxonomy: A is **subtype of** B
- partonomy: A is **part of** B
- dependency: A **depends on** B

- inventory: A is **available** in the language
- cooccurrence: A **cooccurs with** B
- linear order: A is **adjacent to** B
  A **precedes** B

- symbolic relations: A is the **meaning of** B
  A is the **sound expression of** B

- quantifiers involved in grammatical statements: **some, all**, or **none**

- modalities involved in grammatical statements: **may, must, must not.**

One might question the cross-theoretical acceptance of part-whole relations, or constituent structure and, accordingly, the reliance on such relations in a checklist that aspires to be cross-theoretically useful. After all, in some descriptive approaches dependency, rather than constituency, is the central relation, with whole-part relations assigned a minimal role or perhaps no role at all. Partonomic relations are nonetheless admitted into the checklist here on the assumption that, rather than the two being mutually exclusive alternatives, dependency structure is a subtype of constituent structure - that subtype where the mother node is restricted to being of the same category as one of the daughter nodes (the head). If this view is correct, reliance on constituent structure in the checklist should not clash with the conceptual framework of dependency grammar.

A major objection against a checklist which utilizes only those grammatical categories and relations which are acknowledged by all theoretical approaches may legitimately arise: that it will not directly facilitate crosslinguistic generalizations whose statement hinges on theory-specific entities, such as underlying structures or empty categories. This point is valid. I nonetheless think that there must be one basic set of descriptors made available for typologists that is relatively theory-neutral. Theory-neutrality guarantees workability across a broader range of linguists as well as a longer "shelf-life" in the midst of constantly developing theories. A checklist of this "no-frills" kind may then be appropriately complemented by checklists of the kind that rely on insight from special theories of morphosyntax.

c/ EXPLICITNESS

The third proposed desideratum says that the catalogue of descriptors should be explicit enough to allow storage, updating, and selective retrieval of grammatical information by way of a computer data base. A checklist that is ideal in this regard would be designed so that it would eliminate discursive answers to the questions and it would call for responses to be

selected from a short list, such as 'yes,' 'no,' 'cliticized', 'precedes' etc.

It should be noted that, whereas the other three desiderata were indeed kept in mind as I designed the checklist, that of explicitness - in the sense of the multiple-choice descriptors - was reluctantly placed on the back burner. The present form of the general checklist is intended as a first effort where adequacy of the gross outline was to be given priority over adequacy of the detailed formulation of the descriptors. As foreshadowed by the example of Plank's multiple-choice checklist on the dual which, in spite of the specificity of its structural domain, is about 25 pages long, it will take an inordinate effort to come up with a checklist of noun-phrase-internal structure that is both reasonably comprehensive and consists solely of machine-codable - i.e., multiple-choice - descriptors.

d/ PRACTICABILITY

Finally: the checklist should be intuitively appealing to its users and conveniently handlable. Its items and their arrangement in the list should find their match in the way linguists like to think about noun phrases. The list should be reasonably short and do-able.

In compliance with this criterion, the checklist has been hierarchically structured so as both to allow for short descriptive sketches which merely skim top-level issues and also to be "telescopable" for purposes of more detailed descriptions.

4. General checklist in detail

0. General information about the language

0. Sources
1/ Name
2/ Area
3/ Number of speakers
4/ Genetic affiliation
5/ Grammatical characteristics
  a/ Constituent order
    aa/ verb and main arguments
    bb/ adpositions
    cc/ affixes
    dd/ other
  b/ Grammatical relations
    aa/ ergative-absolutive
    bb/ nominative-accusative
    cc/ active-nonactive
    dd/ topic-focus
    ee/ other
  c/ Morphological structure
    aa/ monomorphemic words / polymorphemic words
    bb/ in polymorphemic words
      - compounding
      - derivation
      - inflection
    cc/ in polymorphemic words
      - degree of phonological fusion
      - separatist or cumulative expression
  d/ Syllable types
  e/ Other distinctive characteristics

1. Does the language have noun phrases?

Definition: A language has noun phrases if at least one possible filler of an argument position consists of a noun and at least one syntactically optional constituent which is a separate word.

Coding: Yes or No

If No, stop. If Yes, continue.

2. Inventory of noun phrase heads and dependents and their subtypes

Definitions: The head of a noun phrase is a construction which may constitute a noun phrase either by itself or with at least one other constituent which is a separate word.

A dependent in a noun phrase is a constituent which may form a noun phrase only together with a head but not by itself.

Coding: For each constituent type listed below, enter either - or one or more of the other codes specified below.
- 'This constituent type does not occur in the language.'

HEAD 'This constituent type may be a noun phrase head.'
DET 'This constituent type may be a determiner of the head of a noun phrase.'
QUANT 'This constituent type may be a quantifier of the head of a noun phrase.'
MOD 'This constituent type may be a modifier of the head of a noun phrase.'
NEG 'This constituent type may be a negator of the head of a noun phrase.'
INTER 'This constituent type may be an interrogator of the head of a noun phrase.'
INTEN 'This constituent type may be an intensifier of the head of a noun phrase.'
COMPL 'This constituent type may be a complement of the head of a noun phrase.'

A/ Nouns - bound
- clitic
- word
- phrase
- clause

B/ Pronouns
a/ personal - bound
- clitic
- word
- phrase
- clause

b/ reflexive - bound
- clitic
- word
- phrase
- clause

c/ reciprocal - bound
- clitic
- word
- phrase
- clause

d/ possessive - bound
- clitic
- word
- phrase
- clause

e/ demonstrative - bound
- clitic
- word
- phrase
- clause

f/ interrogative - bound
- clitic
- word
- phrase
- clause

g/ relative - bound
- clitic
- word
- phrase
- clause

h/ indefinite - bound
- clitic
- word
- phrase
- clause

C/ Adjectives - bound
- clitic
- word
- phrase
- clause

D/ Numerals
a/ cardinal - bound
- clitic
- word
- phrase
- clause

b/ ordinal - bound
- clitic
- word
- phrase
- clause

c/ collective - bound
- clitic
- word
- phrase
- clause

d/ distributive - bound
- clitic
- word
- phrase
- clause

E/ Quantifiers - bound
- clitic
- word
- phrase
- clause

F/ Articles - bound
- clitic
- word
- phrase
- clause

G/ Verbs - bound
- clitic
- word
- phrase
- clause

H/ Adverbs - bound
- clitic
- word
- phrase
- clause

I/ Other - bound
- clitic
- word
- phrase
- clause

3. The internal structure of noun phrase heads and dependents

3.1. Nouns

Subtypes if any; for each subtype:

A. Noun words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Noun phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Noun clauses

I. Inventory of constituent types
II. Selection
III. Order

3.2. Pronouns

Subtypes: - personal
- reflexive
- reciprocal
- possessive
- demonstrative
- interrogative
- relative
- indefinite

3.2.1. Personal pronouns

Subtypes if any; for each subtype:

A. Personal pronoun words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Personal pronoun phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Personal pronoun clauses

I. Inventory of constituent types
II. Selection
III. Order

3.2.1. Reflexive pronouns

Subtypes if any; for each subtype:

A. Reflexive pronoun words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Reflexive pronoun phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Reflexive pronoun clauses

I. Inventory of constituent types
II. Selection
III. Order

3.2.3. Reciprocal pronouns

Subtypes if any; for each subtype:

A. Reciprocal pronoun words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Reciprocal pronoun phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Reciprocal pronoun clauses

I. Inventory of constituent types
II. Selection
III. Order

3.2.4. Possessive pronouns

Subtypes if any; for each subtype:

A. Possessive pronoun words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Possessive pronoun phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Possessive pronoun clauses

I. Inventory of constituent types
II. Selection
III. Order

3.2.5. Demonstrative pronouns

Subtypes if any; for each subtype:

A. Demonstrative pronoun words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Demonstrative pronoun phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Demonstrative pronoun clauses

I. Inventory of constituent types
II. Selection
III. Order

3.2.6. Interrogative pronouns

Subtypes if any; for each subtype:

A. Interrogative pronoun words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Interrogative pronoun phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Interrogative pronoun clauses

I. Inventory of constituent types
II. Selection
III. Order

3.2.7. Relative pronouns

Subtypes if any; for each subtype:

A. Relative pronoun words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Relative pronoun phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation

e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Relative pronoun clauses

I. Inventory of constituent types
II. Selection
III. Order

3.2.8. Indefinite pronouns

Subtypes if any; for each subtype:

A. Indefinite pronoun words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Indefinite pronoun phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Indefinite pronoun clauses

I. Inventory of constituent types
II. Selection
III. Order

3.3. Adjectives

Subtypes if any; for each subtype:

A. Adjective words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Adjective phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Adjective clauses

I. Inventory of constituent types
II. Selection
III. Order

3.4. Numerals

Subtypes: - cardinal
- ordinal
- collective
- distributive

3.4.1. Cardinal numerals

Subtypes if any; for each subtype:

A. Cardinal numeral words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding

c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Cardinal numeral phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Cardinal numeral clauses

I. Inventory of constituent types
II. Selection
III. Order

3.4.2. Ordinal numerals

Subtypes if any; for each subtype:

A. Ordinal numeral words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Ordinal numeral phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification

d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Ordinal numeral clauses

I. Inventory of constituent types
II. Selection
III. Order

3.4.3. Collective numerals

Subtypes if any; for each subtype:

A. Collective numeral words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Collective numeral phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Collective numeral clauses

I. Inventory of constituent types
II. Selection
III. Order

3.4.4. Distributive numerals

Subtypes if any; for each subtype:

A. Distributive numeral words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Distributive numeral phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Distributive numeral clauses

I. Inventory of constituent types
II. Selection
III. Order

3.5. Quantifiers

Subtypes: existential
universal

3.5.1. Existential quantifiers

Subtypes if any; for each subtype:

A. Existential quantifier words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Existential quantifier phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Existential quantifier clauses

I. Inventory of constituent types
II. Selection
III. Order

3.5.2. Universal quantifiers

Subtypes if any; for each subtype:

A. Universal quantifier words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Universal quantifier phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation

f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Universal quantifier clauses

I. Inventory of constituent types
II. Selection
III. Order

3.6. Articles

Subtypes: - definite
- indefinite

3.6.1. Definite articles

Subtypes if any; for each subtype:

A. Definite article words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Definite article phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Definite article clauses

I. Inventory of constituent types
II. Selection
III. Order

3.6.2. Indefinite articles

Subtypes if any; for each subtype:

A. Indefinite article words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Indefinite article phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Indefinite article clauses

I. Inventory of constituent types
II. Selection
III. Order

3.7. Verbs

Subtypes: - infinitive
- gerund
- participle

3.7.1. Infinitives

Subtypes if any; for each subtype:

A. Infinitive words

I. Inventory of constituent types
II. Selection
  a/ derivation
  b/ compounding
  c/ reduplication
  d/ conversion
  e/ marking
    aa/ gender
    bb/ number
    cc/ case
    dd/ person
    ee/ other
III. Order

B. Infinitive phrases

I. Inventory of constituent types
II. Selection
  a/ determination
  b/ quantification
  c/ modification
  d/ interrogation
  e/ negation
  f/ intensification
  g/ complementation
  h/ coordination
  i/ reduplication
  j/ stacking

III. Order

C. Infinitive clauses

I. Inventory of constituent types
II. Selection
III. Order

3.7.2. Gerunds

Subtypes if any; for each subtype:

A. Gerund words

I. Inventory of constituent types
II. Selection
  a/ derivation
  b/ compounding
  c/ reduplication
  d/ conversion
  e/ marking
    aa/ gender
    bb/ number
    cc/ case
    dd/ person
    ee/ other
III. Order

B. Gerund phrases

I. Inventory of constituent types
II. Selection
  a/ determination
  b/ quantification
  c/ modification
  d/ interrogation
  e/ negation
  f/ intensification
  g/ complementation
  h/ coordination
  i/ reduplication
  j/ stacking

III. Order

C. Gerund clauses

I. Inventory of constituent types
II. Selection
III. Order

3.7.3. Participles

Subtypes if any; for each subtype:

A. Participle words

I. Inventory of constituent types
II. Selection
  a/ derivation
  b/ compounding
  c/ reduplication
  d/ conversion
  e/ marking
    aa/ gender
    bb/ number
    cc/ case
    dd/ person
    ee/ other
III. Order

B. Participle phrases

I. Inventory of constituent types
II. Selection
  a/ determination
  b/ quantification
  c/ modification
  d/ interrogation
  e/ negation
  f/ intensification
  g/ complementation
  h/ coordination
  i/ reduplication
  j/ stacking

III. Order

C. Participle clauses

I. Inventory of constituent types
II. Selection
III. Order

3.8. Adverbs

Subtypes if any; for each subtype:

A. Adverb words

I. Inventory of constituent types
II. Selection
a/ derivation
b/ compounding
c/ reduplication
d/ conversion
e/ marking
aa/ gender
bb/ number
cc/ case
dd/ person
ee/ other
III. Order

B. Adverb phrases

I. Inventory of constituent types
II. Selection
a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Adverb clauses

I. Inventory of constituent types
II. Selection
III. Order

4. Selection and order among subtypes of each dependent type

4.1. Subtypes of determiners
I. Inventory
II. Selection
III. Order
4.2. Subtypes of quantifiers
I. Inventory
II. Selection
III. Order
4.3. Subtypes of modifiers
I. Inventory
II. Selection
III. Order
4.4. Subtypes of negators
I. Inventory
II. Selection
III. Order
4.5. Subtypes of interrogators
I. Inventory
II. Selection
III. Order
4.6. Subtypes of intensifiers
I. Inventory
II. Selection
III. Order
4.7. Subtypes of complements
I. Inventory
II. Selection
III. Order

5. Selection and order among types of dependents

5.1. Determiners, quantifiers
I. Inventory
II. Selection
III. Order
5.2. Determiners, modifiers
I. Inventory
II. Selection
III. Order
5.3. Determiners, interrogators
I. Inventory
II. Selection
III. Order
5.4. Determiners, negators
I. Inventory
II. Selection
III. Order
5.5. Determiners, intensifiers
I. Inventory
II. Selection
III. Order
5.6. Determiners, complements
I. Inventory
II. Selection
III. Order
5.7. Quantifiers, modifiers
I. Inventory
II. Selection

III. Order
5.8. Quantifiers, interrogators
I. Inventory
II. Selection
III. Order
5.9. Quantifiers, negators
I. Inventory
II. Selection
III. Order
5.10. Quantifiers, intensifiers
I. Inventory
II. Selection
III. Order
5.11. Quantifiers, complements
I. Inventory
II. Selection
III. Order
5.12. Modifiers, interrogators
I. Inventory
II. Selection
III. Order
5.13. Modifiers, negators
I. Inventory
II. Selection
III. Order
5.14. Modifiers, intensifiers
I. Inventory
II. Selection
III. Order
5.15. Modifiers, complements
I. Inventory
II. Selection
III. Order
5.16. Interrogators, negators
I. Inventory
II. Selection
III. Order
5.17. Interrogators, intensifiers
I. Inventory
II. Selection
III. Order
5.18. Interrogators, complements
I. Inventory
II. Selection
III. Order
5.19. Negators, intensifiers
I. Inventory
II. Selection
III. Order
5.20. Negators, complements
I. Inventory
II. Selection
III. Order
5.21. Intensifiers, complements
I. Inventory
II. Selection
III. Order

6. Selection and order between heads and dependents

6.1. Head and one major type of dependent

6.1.1. Head, determiner
I. Inventory
II. Selection
III. Order
6.1.2. Head, quantifier
I. Inventory
II. Selection
III. Order
6.1.3. Head, modifier
I. Inventory
II. Selection
III. Order
6.1.4. Head, interrogator
I. Inventory
II. Selection
III. Order
6.1.5. Head, negator
I. Inventory
II. Selection
III. Order
6.1.6. Head, intensifier
I. Inventory
II. Selection
III. Order
6.1.7. Head, complement
I. Inventory
II. Selection
III. Order

6.2. Head and two major types of dependent

6.2.1. Head, determiner, X
6.2.1.1. Head, determiner, quantifier
I. Inventory
II. Selection
III. Order
6.2.1.2. Head, determiner, modifier
I. Inventory
II. Selection
III. Order
6.2.1.3. Head, determiner, interrogator
I. Inventory
II. Selection
III. Order
6.2.1.4. Head, determiner, negator
I. Inventory
II. Selection
III. Order
6.2.1.5. Head, determiner, intensifier
I. Inventory
II. Selection
III. Order
6.2.1.6. Head, determiner, complement
I. Inventory
II. Selection
III. Order

6.2.2. Head, quantifier, X
- 6.2.2.1. Quantifier, modifier
  - I. Inventory
  - II. Selection
  - III. Order
- 6.2.2.2. Quantifier, interrogator
  - I. Inventory
  - II. Selection
  - III. Order
- 6.2.2.3. Quantifier, negator
  - I. Inventory
  - II. Selection
  - III. Order
- 6.2.2.4. Quantifier, intensifier
  - I. Inventory
  - II. Selection
  - III. Order
- 6.2.2.5. Quantifier, complement
  - I. Inventory
  - II. Selection
  - III. Order

6.2.3. Head, modifier, X
- 6.2.3.1. Modifier, interrogator
  - I. Inventory
  - II. Selection
  - III. Order
- 6.2.3.2. Modifier, negator
  - I. Inventory
  - II. Selection
  - III. Order
- 6.2.3.3. Modifier, intensifier
  - I. Inventory
  - II. Selection
  - III. Order
- 6.2.3.4. Modifier, complement
  - I. Inventory
  - II. Selection
  - III. Order

6.2.4. Head, interrogator, X
- 6.2.4.1. Interrogator, negator
  - I. Inventory
  - II. Selection
  - III. Order
- 6.2.4.2. Interrogator, intensifier
  - I. Inventory
  - II. Selection
  - III. Order
- 6.2.4.3. Interrogator, complement
  - I. Inventory
  - II. Selection
  - III. Order

6.2.5. Head, negator, X
- 6.2.5.1. Negator, intensifier
  - I. Inventory
  - II. Selection
  - III. Order
- 6.2.5.2. Negator, complement
  - I. Inventory
  - II. Selection
  - III. Order

6.2.6. Head, intensifier, X
- 6.2.6.1. Intensifier, complement
  - I. Inventory
  - II. Selection
  - III. Order

6.3. <u>Head and three major types of dependent</u>

6.3.1. Head, determiner, X, Y
- 6.3.1.1. Head, determiner, quantifier, modifier
  - I. Inventory
  - II. Selection
  - III. Order
- 6.3.1.2. Head, determiner, quantifier, interrogator
  - I. Inventory
  - II. Selection
  - III. Order
- 6.3.1.3. Head, determiner, quantifier, negator
  - I. Inventory
  - II. Selection
  - III. Order
- 6.3.1.4. Head, determiner, quantifier, intensifier
  - I. Inventory
  - II. Selection
  - III. Order
- 6.3.1.5. Head, determiner, quantifier, complement
  - I. Inventory
  - II. Selection
  - III. Order
- 6.3.1.6. Head, determiner, modifier, interrogator
  - I. Inventory
  - II. Selection
  - III. Order
- 6.3.1.7. Head, determiner, modifier, negator
  - I. Inventory
  - II. Selection
  - III. Order
- 6.3.1.8. Head, determiner, modifier, intensifier
  - I. Inventory
  - II. Selection
  - III. Order
- 6.3.1.9. Head, determiner, modifier, complement
  - I. Inventory
  - II. Selection
  - III. Order
- 6.3.1.10. Head, determiner, interrogator, negator
  - I. Inventory
  - II. Selection
  - III. Order
- 6.3.1.11. Head, determiner, interrogator, intensifier
  - I. Inventory
  - II. Selection
  - III. Order

6.3.1.12. Head, determiner, interrogator, complement
I. Inventory
II. Selection
III. Order
6.3.1.13. Head, determiner, negator, intensifier
I. Inventory
II. Selection
III. Order
6.3.1.14. Head, determiner, negator, complement
I. Inventory
II. Selection
III. Order
6.3.1.15. Head, determiner, intensifier, complement
I. Inventory
II. Selection
III. Order

6.3.2. Head, quantifier, X, Y
6.3.2.1. Head, quantifier, modifier, interrogator
I. Inventory
II. Selection
III. Order
6.3.2.2. Head, quantifier, modifier, negator
I. Inventory
II. Selection
III. Order
6.3.2.3. Head, quantifier, modifier, intensifier
I. Inventory
II. Selection
III. Order
6.3.2.4. Head, quantifier, modifier, complement
I. Inventory
II. Selection
III. Order
6.3.2.5. Head, quantifier, interrogator, negator
I. Inventory
II. Selection
III. Order
6.3.2.6. Head, quantifier, interrogator, intensifier
I. Inventory
II. Selection
III. Order
6.3.2.7. Head, quantifier, interrogator, complement
I. Inventory
II. Selection
III. Order
6.3.2.8. Head, quantifier, negator, intensifier
I. Inventory
II. Selection
III. Order
6.3.2.9. Head, quantifier, negator, complement
I. Inventory
II. Selection
III. Order
6.3.2.10. Head, quantifier, intensifier, complement
I. Inventory
II. Selection
III. Order

6.3.3. Head, modifier, X, Y
6.3.3.1. Head, modifier, interrogator, negator
I. Inventory
II. Selection
III. Order
6.3.3.2. Head, modifier, interrogator, intensifier
I. Inventory
II. Selection
III. Order
6.3.3.3. Head, modifier, interrogator, complement
I. Inventory
II. Selection
III. Order
6.3.3.4. Head, modifier, negator, intensifier
I. Inventory
II. Selection
III. Order
6.3.3.5. Head, modifier, negator, complement
I. Inventory
II. Selection
III. Order
6.3.3.6. Head, modifier, intensifier, complement
I. Inventory
II. Selection
III. Order

6.3.4. Head, interrogator, X, Y
6.3.4.1. Head, interrogator, negator, intensifier
I. Inventory
II. Selection
III. Order
6.3.4.2. Head, interrogator, negator, complement
I. Inventory
II. Selection
III. Order
6.3.4.3. Head, interrogator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.3.5. Head, negator, X, Y
6.3.5.1. Head, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.4. <u>Head and four major types of dependent</u>

6.4.1. Head, determiner, X, Y, Z
6.4.1.1. Head, determiner, quantifier, modifier, interrogator
I. Inventory
II. Selection
III. Order
6.4.1.2. Head, determiner, quantifier, modifier, negator
I. Inventory
II. Selection

III. Order

6.4.1.3. Head, determiner, quantifier, modifier, intensifier
I. Inventory
II. Selection
III. Order

6.4.1.4. Head, determiner, quantifier, modifier, complement
I. Inventory
II. Selection
III. Order

6.4.1.5. Head, determiner, quantifier, interrogator, negator
I. Inventory
II. Selection
III. Order

6.4.1.6. Head, determiner, quantifier, interrogator, intensifier
I. Inventory
II. Selection
III. Order

6.4.1.7. Head, determiner, quantifier, interrogator, complement
I. Inventory
II. Selection
III. Order

6.4.1.8. Head, determiner, quantifier, negator, intensifier
I. Inventory
II. Selection
III. Order

6.4.1.9. Head, determiner, quantifier, negator, complement
I. Inventory
II. Selection
III. Order

6.4.1.10. Head, determiner, quantifier, intensifier, complement
I. Inventory
II. Selection
III. Order

6.4.1.11. Head, determiner, modifier, interrogator, negator
I. Inventory
II. Selection
III. Order

6.4.1.12. Head, determiner, modifier, interrogator, intensifier
I. Inventory
II. Selection
III. Order

6.4.1.13. Head, determiner, modifier, interrogator, complement
I. Inventory
II. Selection
III. Order

6.4.1.14. Head, determiner, modifier, negator, intensifier
I. Inventory
II. Selection
III. Order

6.4.1.15. Head, determiner, modifier, negator, complement
I. Inventory
II. Selection
III. Order

6.4.1.16. Head, determiner, modifier, intensifier, complement
I. Inventory
II. Selection
III. Order

6.4.1.17. Head, determiner, interrogator, negator, intensifier
I. Inventory
II. Selection
III. Order

6.4.1.18. Head, determiner, interrogator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.4.1.19. Head, determiner, interrogator, negator, complement
I. Inventory
II. Selection
III. Order

6.4.1.20. Head, determiner, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.4.2. Head, quantifier, X, Y, Z

6.4.2.1. Head, quantifier, modifier, interrogator, negator
I. Inventory
II. Selection
III. Order

6.4.2.2. Head, quantifier, modifier, interrogator, intensifier
I. Inventory
II. Selection
III. Order

6.4.2.3. Head, quantifier, modifier, interrogator, complement
I. Inventory
II. Selection
III. Order

6.4.2.4. Head, quantifier, modifier, negator, intensifier
I. Inventory
II. Selection
III. Order

6.4.2.5. Head, quantifier, modifier, negator, complement
I. Inventory
II. Selection
III. Order

6.4.2.6. Head, quantifier, modifier, intensifier, complement

I. Inventory
II. Selection
III. Order

6.4.2.7. Head, quantifier, interrogator, negator, intensifier
I. Inventory
II. Selection
III. Order

6.4.2.8. Head, quantifier, interrogator, negator, complement
I. Inventory
II. Selection
III. Order

6.4.2.9. Head, quantifier, interrogator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.4.2.10. Head, quantifier, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.4.3. Head, modifier, X, Y, Z

6.4.3.1. Head, modifier, interrogator, negator, intensifier
I. Inventory
II. Selection
III. Order

6.4.3.2. Head, modifier, interrogator, negator, complement
I. Inventory
II. Selection
III. Order

6.4.3.3. Head, modifier, interrogator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.4.3.4. Head, modifier, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.4.4. Head, interrogator, X, Y, Z

6.4.4.1. Head, interrogator, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.5. <u>Head and five major types of dependent</u>

6.5.1. Head, determiner, X, Y, Z, W

6.5.1.1. Head, determiner, quantifier, modifier, interrogator, negator
I. Inventory
II. Selection
III. Order

6.5.1.2. Head, determiner, quantifier, modifier, interrogator, intensifier
I. Inventory
II. Selection
III. Order

6.5.1.3. Head, determiner, quantifier, modifier, interrogator, complement
I. Inventory
II. Selection
III. Order

6.5.1.4. Head, determiner, quantifier, modifier, negator, intensifier
I. Inventory
II. Selection
III. Order

6.5.1.5. Head, determiner, quantifier, modifier, negator, complement
I. Inventory
II. Selection
III. Order

6.5.1.6. Head, determiner, quantifier, modifier, intensifier, complement
I. Inventory
II. Selection
III. Order

6.5.1.7. Head, determiner, quantifier, interrogator, negator, intensifier
I. Inventory
II. Selection
III. Order

6.5.1.8. Head, determiner, quantifier, interrogator, negator, complement
I. Inventory
II. Selection
III. Order

6.5.1.9. Head, determiner, quantifier, interrogator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.5.1.10. Head, determiner, quantifier, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.5.1.11. Head, determiner, modifier, interrogator, negator, intensifier
I. Inventory
II. Selection
III. Order

6.5.1.12. Head, determiner, modifier, interrogator, negator, complement
I. Inventory
II. Selection
III. Order

6.5.1.13. Head, determiner, modifier, interrogator, intensifier, complement
I. Inventory
II. Selection

III. Order

6.5.1.14. Head, determiner, modifier, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.5.1.15. Head, determiner, interrogator, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.5.2. Head, quantifier, X, Y, Z, W

6.5.2.1. Head, quantifier, modifier, interrogator, negator, intensifier
I. Inventory
II. Selection
III. Order

6.5.2.2. Head, quantifier, modifier, interrogator, negator, complement
I. Inventory
II. Selection
III. Order

6.5.2.3. Head, quantifier, modifier, interrogator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.5.2.4. Head, quantifier, modifier, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.5.2.5. Head, quantifier, interrogator, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.5.3. Head, modifier, X, Y, Z, W

6.5.2.1. Head, modifier, interrogator, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.6. Head and six major types of dependent

6.6.1. Determiner, quantifier, modifier, interrogator, negator, intensifier
I. Inventory
II. Selection
III. Order

6.6.2. Determiner, quantifier, modifier, interrogator, negator, complement
I. Inventory
II. Selection
III. Order

6.6.3. Determiner, quantifier, modifier, interrogator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.6.4. Determiner, quantifier, modifier, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.6.5. Determiner, quantifier, interrogator, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.6.6. Determiner, modifier, interrogator, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.6.7. Quantifier, modifier, interrogator, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

6.7. Head and seven major types of dependent

6.7.1. Determiner, quantifier, modifier, interrogator, negator, intensifier, complement
I. Inventory
II. Selection
III. Order

5. Comments on meaning

6. Comments on sound form

7. Comments on similarities among noun-phrase-internal structures and between noun-phrase-internal and noun-phrase-external ones

5. Special checklists

The following are elaborations of various specific aspects of noun-phrase-internal structure. They are based on three of the eight checklists sent to me by members of the NP-Group, referred to below as Corbett 1990, Gil 1990, and Koptjevskaja-Tamm 1990. (The others are a checklist on number by Corbett, one on universal quantifiers by Gil, checklists on genitives and on NP versus clause structure by Koptjevskaja-Tamm, and one on the dual by Plank.) For better or worse, the checklists included here have been restructured somewhat so as to make them conform to the format of the general checklist given above.

5.1. GENDER (based on Corbett 1990)

Definition: Gender is a system of nominal classification which must be manifested in agreement inside or outside the noun phrase. Thus, gender will, by definition, always be attributed to at least two constituents: the controller of agreement and the target of agreement.

0. General information about the language

1. Is there gender in the language in question?

Coding: Yes or No

If No, stop. If Yes, continue.

2. Inventory of constituent types in gender constructions

2.1. inventory of agreement controllers with gender
(e.g. Noun, Pronoun)

2.2. inventory of agreement targets with gender
(e.g. Adjective, Article)

2.3. inventory of gender markers
- defined by head's meaning?
- defined by head's phonological form?
- defined by a combination of head's meaning and phonological form?
- manifested as affix or clitic or free form

2.4. inventory of other markers in gender constructions
(e.g. number, case, person, definiteness, tense)

3. Cooccurrence in gender constructions

3.1. Cooccurrence of gender markers and agreement controllers
(e.g. "Only singular nouns have gender.")

3.2. Cooccurrence of gender markers and agreement targets
(e.g. "Only attributive, but not predicative, adjectives take gender marking.")

3.3. Cooccurrence of gender markers and other markers
- gender and number
- gender and case
- gender and person
- gender and definiteness
- gender and tense
- gender and other marking

4. Linear order in gender constructions

4.1. Linear order of gender marker relative to controller
- adjacent or non-adjacent to stem?
- preposed?
- postposed?
- intraposed?
- circumposed?

4.2. Linear order of gender marker relative to target
- adjacent or non-adjacent to stem?
- preposed?
- postposed?
- intraposed?
- circumposed?

4.3. Linear order of gender marker relative to other markings
- gender and number -- adjacency?
  -- precedence?
- gender and case -- adjacency?
  -- precedence?
- gender and person -- adjacency?
  -- precedence?
- gender and definiteness -- adjacency?
  -- precedence?
- gender and tense -- adjacency?
  -- precedence?
- gender and other markers -- adjacency?
  -- precedance?

5. Comments on meaning

6. Comments on sound form

7. Comments on similarities and differences between gender constructions and other structures

5.2. ACTION NOMINAL CONSTRUCTIONS (based on Koptjevskaja-Tamm 1990)

0. General information about the language

1. Are there action nominal constructions in the language in question?

Definition: Action nominal constructions are action nominals and their dependents if any. An action nominal is a noun derived from a verb with the general meaning of an action or a process, capable of declining or taking adpositions in the same way as non-derived nouns and showing "reasonable" productivity.

Coding: Yes or No.

If No, stop. If Yes, continue.

Since action nominal constructions are a subtype of noun phrases, the rest of this special checklist is identical to the general checklist except for the fact that all questions are to be answered only relative to noun phrases with an action nominal head, to the exclusion of all other kinds. Thus, the gross outline of the rest of the checklist would be as follows:

2. **Inventory of heads and dependents and their subtypes in action nominal constructions**
   E.g.: Is Agent expressible (such as "Peter" in "Peter's reading the book")?

3. **The internal structure of heads and dependents**
   E.g.: Are Agents, Patients, and Subjects case-marked (where "Patient" is "book" in "Peter's reading the book" and "Subject" is "Peter" is "Peter's going")?

4. **Selection and order of subtypes of each dependent type**
   E.g.: Can both Agents and Patients be expressed in the same construction?

5. **Selection and order between types of dependents**
   E.g.: Can the Article and the Subject cooccur? ("the Peter's going")

6. **Selection and order between heads and dependents**
   E.g.: Can all action nominals cooccur with either Subject or Agent?

7. **Comments on meaning**
   E.g.: When are action nominal constructions interpreted as referring to facts and when are they interpreted as referring to events?

8. **Comments on sound form**
   E.g.: Is any of the case markers zero?

The last section of the checklist:

9. **Comments on similarities among noun-phrase-internal structures and between noun-phrase-internal and noun-phrase-external ones.**

must be particularly elaborate in the case of action nominal constructions. Corresponding to the inherently both-verbal-and-nominal nature of action nominals, Koptjevskaja-Tamm's checklist is centrally concerned with

a/ similarities and differences between action nominal constructions and constructions involving ordinary nominals (e.g. Peter's reading the book and Peter's book); and

b/ similarities and differences between action nominal constructions and corresponding clausal ones (e.g. Peter's reading the book and Peter is reading the book).

Specific questions may be as follows:

Comparison regarding the inventory of constituents:

a/ How does the inventory of major constituents available in action nominal constructions compare with the inventory of major constituents available in ordinary nominal constructions?

b/ How does the inventory of major constituents available in action nominal constructions compare with the inventory of major constituents available in corresponding clauses?

Comparison regarding cooccurrence and order:

a/ How do cooccurrence and order constraints in action nominal constructions compare with cooccurrence and order constraints in ordinary nominal constructions?

b/ How do cooccurrence and order constraints in action nominal constructions compare with cooccurrence and order constraints in corresponding clauses?

5.3. THE NP TYPOLOGY (based on Gil 1990)

Gil's NP Typology (Gil 1987) is a set of claims about the crosslinguistic distribution of certain patterns of occurrence, cooccurrence, order, and semantic interpretation involving nouns, numerals, adjectives, numeral classifiers, and noun markers for plurality and (in)definiteness. The list below is seen as comprising a subset of the questions included in a general checklist of noun-phrase-internal structure - that subset which is relevant for testing the claims of NP Typology.

0. **General information about the language**

1. **Does the language have noun phrases?**

   /as the corresponding section in the General Checklist/

2. **Inventory: Do the following categories occur in the language in question?**

   A/ Main constituent classes: (from section 1. Inventory of noun phrase heads and dependents and their subtypes of the General Checklist)

   a/ nouns
   b/ numerals
      aa/ cardinal numerals
      bb/ distributive numerals
   c/ quantifiers
      - distributive (non-numeral) quantifiers
   d/ adjectives
      - distributive adjectives
   e/ articles (constituents to mark (in)definiteness, whether bound or free)
   f/ verbs
      - distributive verbs

   B. Dependents or markers of main constituents (from section 2. The internal structure of heads and dependents of the General Checklist):

   g/ plural marking of nouns
   h/ numeral classifiers

3. **Cooccurrence**

A. **The internal structure of heads and dependents**
(cf. section 3. of the General Checklist)

a/ the internal structure of nouns

Specify which subtypes of nouns may or must occur with (which sutypes of) markers of plurality; where "subtypes" may be defined semantically (common, count, definite, etc.) or by syntactic function (subject, focus, etc.).

b/ the internal structure of numeral phrases

aa/ numeral classifiers and numerals

Specify which subtypes of numeral classifiers may or must occur with (which subtypes of) numeral classifiers; where "subtypes" may be defined semantically (cardinal, distributive, etc.) or by syntactic function (subject, focus, etc.).

bb/ Can (some subtypes of) numerals be stacked?

c/ the internal structure of adjectival phrases

- Can (some subtypes of) adjectives be stacked?

B. **Selection of subtypes and types of dependents**
(cf. sections 4. and 5. of the General Checklist)

- numeral classifiers and other dependents of nouns:

Specify which subtypes of numeral classifiers may or must occur with (which subtypes of) dependents of nouns other than numerals (non-numeral quantifiers, determiners, modifiers, etc.); where "subtypes" may be defined semantically (definite, indefinite, etc.) or by syntactic function (subject, focus, etc.).

C. **Selection of heads and dependents**
(cf. section 6. of the General Checklist)

aa/ nouns and (in)definiteness marking:

Specify which subtypes of nouns may or must occur with (which subtypes of) markers of definiteness and indefiniteness; where "subtypes" may be defined semantically (common, count, singular, etc.) or by syntactic function (subject, focus, etc.).

bb/ nouns and numeral constructions that include numeral classifiers:

Specify which subtypes of numeral classifiers may or must occur with (which subtypes of) nouns; where "subtypes" may be defined semantically (common, count, definite, etc.) or by syntactic function (subject, focus, etc.).

cc/ nouns and distributive numerals:

Specify which subtypes of nouns may or must occur with (which subtypes of) distributive numerals; where "subtypes" may be defined semantically (definite, indefinite, etc.) or by syntactic function (subject, focus, etc.).

In particular: which of the following are possible?
a/ distributive numeral in simplex object noun phrase
aa/ subject simplex and plural
(e.g. "John carried DIST:THREE books.")
bb/ subject conjoined
(e.g. "John and Bill carried DIST:THREE books.")
b/ distributive numeral in conjoined object noun phrase
aa/ subject simplex and singular
(e.g. "John carried DIST:THREE books and magazines.")
bb/ subject conjoined
(e.g. "John and Bill carried DIST:THREE books and magazines.")

4. **Constituent order**

For all combinations of nouns and dependents (determiners, quantifiers, modifiers, interrogators, negators, intensifiers, complements), and for all combinations of dependents with each other, specify all possible patterns of

a/ adjacency and
b/ precedence.

(Cf. sections 3-6 of the General Checklist.)

5. **Comments on meaning** (Cf. section 7. of the General Checklist.)

a/ regarding distributive numerals:

What is the meaning of the following structures if they occur?

aa/ "John carried THREE:DISTR books."
bb/ "John and Bill carried THREE:DISTR books."
Are the following intepretations possible?
aaa/ 'John and Bill carried three books each.'
bbb/ 'John and Bill carried the books three at a time.'
ccc/ 'John and Bill carried sets of three books.'
cc/ "John carried THREE:DISTR books and magazines."
dd/ "John and Bill carried THREE:DISTR books and magazines."

b/ regarding nouns and plural marking:

Under what conditions may or must nouns that are not marked for plurality nonetheless be interpreted as plural?

c/ regarding stacked numerals:

What do they mean?

d/ regarding stacked adjectives:

Is meaning invariant regardless of the order of the adjectives (e.g. "small powerful engine", "powerful small engine")?

Is meaning the same regardless of whether adjectives are stacked or conjoined (e.g. "small powerful engine" and "small and powerful engine")?

e/ regarding nouns and articles ((in)definiteness marking):

Under what conditions may or must nouns that are not marked for (in)definiteness nonetheless be interpreted as (in)definite?

f/ regarding nouns and numeral classifiers:

Can a head noun occur with alternative numeral classifiers with different meanings?

g/ regarding constituent order:

If any two constituents within the noun phrase may occur in two different linear order patterns, are the two synonymous or not; if not, what is the difference?

6. <u>Comments on sound form</u> (Cf. section 8. of the General Checklist.)

Are distributive markers in distributive numerals, distributive quantifiers, distributive adjectives, and distributive verbs of the same phonetic form?

7. <u>Comments on similarities among noun-phrase-internal structures and between noun-phrase-internal and noun-phrase-external ones</u> (Cf. section 9. of the General Checklist.)

- Are (in)definiteness markers, plural markers, and numeral classifiers members of a more general constituent type (such as Noun, Adjective, etc.)?

6. <u>Sample descriptions</u>

Two descriptions follow both, based on the General Checklist and both of Hungarian. The first one (in section 6.1.) is a brief sketch of the kind that the Noun Phrase Group of EUROTYP may wish to prepare for a good number of the languages of Europe and that is exemplified by Gianguido Manzelli's sketches of Albanian, Chuvash, Italian, Komi-Zyrian, Maltese, as well as Lingala, which he distributed earlier this Fall. The Hungarian sketch "skims" the general checklist by sorting information according to the nine main headings but not following up on the various subheadings. Information given about the language is selected more or less at random. I assumed a length limit of 5 pages.

The second checklist (6.2.) is an attempt to make good on the entire checklist. At this point, this second description is partial only. In order to make it clear where the gaps are, I listed all descriptors from the general checklist regardless of whether required information on Hungarian was or was not filled in.

6.1. Hungarian – sketch

0. General information about the language

Hungarian is a member of the Western group of the Ugric branch of Finno-Ugric which is part of the Uralic family. It is spoken by about ten million people in Hungary and several millions outside it. Main constituent order is variable, with focus directly preverbal. Hungarian has an extensive adpositionally and/or affixally marked case system and an affixal agreement system, with the verb agreeing with subjects and also showing the (in)definiteness of direct objects. Adpositions are mostly postposed; affixes are predominantly suffixed. Polymorphemic words are common due both to compounding and to derivation. There is relatively little intermorphemic fusion in words and meaning units tend to have separate, rather than cumulated, affixal expression. The language has few consonant clusters and it has vowel harmony.

Sources used: Tompa 1968, Moravcsik 1984, Kiefer 1985, Maracz 1986.

1. Does the language have noun phrases?

Hungarian does have noun phrases in that there are expressions in argument position which consist of more than one word such that at least one of them could constitute an argument also by itself.

For example:

Fiúkat láttam.
boys:ACC I:saw
'I saw boys.'

Lányokat lattam.
girls:ACC I:saw
'I saw girls.'

Fiúkat és lányokat láttam.
boys:ACC and girls:ACC I:saw
'I saw boys and girls.'

Magas, szőke, Berlinből érkezett fiúkat is láttam.
tall blond from:Berlin arrived boys:ACC also I:saw
'I saw also tall blond boys who had arived from Berlin.'

2. Inventory of noun phrase heads and dependents

The following chart shows whether various constituent types occur as affixes, clitics, words, phrases, or clauses in Hungarian noun phrases and whether those that do occur function as heads of noun phrases or as dependents of noun phrase heads; if the latter, whether they as determiners (DET), quantifiers (QUANT), modifiers (MOD), negators (NEG), interrogators (INTER), intensifiers (INTEN), or complements (COMPL).

	affix	clitic	word	phrase	clause
A/ Nouns	–	–	HEAD MOD	HEAD QUANT MOD	HEAD COMPL
B/ Pronouns					
a/ personal	–	–	HEAD	HEAD	–
b/ reflexive	–	–	HEAD INTEN	HEAD	–
c/ reciprocal	–	–	HEAD	HEAD	–
d/ possessive	–	–	HEAD	HEAD DET	–
e/ demonstrative	–	–	HEAD	HEAD DET	–
f/ interrogative	–	–	HEAD INTER	HEAD INTER	–
g/ relative	–	–	HEAD DET QUANT MOD	HEAD	–
h/ indefinite	–	–	HEAD DET QUANT MOD	HEAD	–
C/ Adjectives	–	–	HEAD MOD	HEAD MOD	HEAD MOD
D/ Numerals					
a/ cardinal	–	–	HEAD QUANT	HEAD QUANT	–
b/ ordinal	–	–	HEAD DET	HEAD DET	–
c/ collective	–	–	–	–	–
d/ distributive	–	–	–	HEAD QUANT	–
E/ Quantifiers					
a/ existential	–	–	HEAD QUANT	HEAD QUANT	–
b/ universal	–	–	HEAD QUANT	HEAD QUANT	–
F/ Articles	–	DET	–	–	–
G/ Verbs	–	–	HEAD	HEAD	–
H/ Adverbs	–	–	MOD NEG INTEN	MOD	MOD

3. The internal structure of noun phrase heads and dependents

A. Word-internal structure:

- Selection: word-internal structure is often polymorphemic: compounding, derivation, and inflection are common and there are instances of total reduplication (mostly with one of the two elements altered) and conversion. Inflectional marking may be for number, case, and person/number/definiteness agreement.

Infinitives cannot be marked for number or case but they may be marked for number and case of their subjects through possessive affixes.

E.g. El kell men-ni.
away necessary go INF
'It is necessary to leave.'

(Nekem) el kell men-n -em.
to:me away must go INF SING1
'I must leave.'

Of dependents, only the demonstrative adjective may be marked for number and case. For the case-marking of the demonstrative adjective, the following constraint holds: it may be marked by a case affix or by an adposition, but not by both.

E.g. ez -en a ház -on
this SUP the house SUP (SUP = superessive)
'on this house'

ez -alatt a ház alatt
this under the house under
'under this house'

ez -en a ház -on át
this SUP the house SUP through
'through this house'

*ezen át a házon át

- Order: In compounds, the head is last; similarly, in reduplication, the unaltered element tends to be second. Derivational affixes are suffixed with the exception of a set of verbal prefixes. Inflectional affixes are suffixed; however, oblique-case-marked personal affixes have the case marking affix or adposition as their stem, with person and number suffixed.

E.g. szénа-kazal-ok-kal
hay stack PL INSTR
'with haystacks'

vel -ük
with PLU3
'with them'

B. Phrase-internal structure:

- Selection: Dependents of noun phrase heads may themselves be phrases that include heads and dependents of various types: determiners, quantifiers, modifiers, negators, interrogators, intensifiers, and complements. In addition, both heads and dependents may be coordinated and stacked.

Adjective phrases may include equative, comparative, and partitive complements.

E.g. - equative complement:
Olyan szép ruhát akarok, mint a tied.
such pretty dress:ACC I:want as the yours
'I want a dress as pretty as yours.'

- comparative complement:
A tied -nél szebb ruhát akarok.
the yours ADESS pretties dress:ACC I:want
'I want a dress that is pretties than yours.'

Szebb ruhát akarok, mint a tied.
prettier dress:ACC I:want than the yours
'I want a dress prettier than yours.'

- partitive complement:
A sok közül a leg-szebb ruhát akarom.
the many from:among the most-prettiest dress:ACC I:want
'Of the may, I want the prettiest dress.'

- Order: Dependents generally precede the head.

E.g. kicsit horpadt játékok
little dented toys
'toys that are a bit dented'

However, clausal dependents and the adverb is 'also' must follow their heads. In comparative constructions, if the standard of comparison is expressed through case affix it may or may not be adjacent to the adjective; if it is adjacent, it must precede. If the standard is expressed through a clause, it will follow the adjective.

C. Clause-internal structure:

- Selection: Head and dependent clauses generally show the same cooccurrence constraints as main clauses except for the presence of special markers (hogy 'that' for noun clauses, relative pronouns for relative clauses and adverb clauses).

- Order: Head and dependent clauses generally show the same linear order as main clauses, with special markers preceding the rest of the clause.

E.g. a játék, amelyet eltörtél
the toy which:ACC you:broke
'the toy which you broke'

cf. Valamit eltörtél.
something:ACC you:broke
'You broke something.'

4. Selection and order among subtypes of each dependent type

- Selection:

Generally, each dependent type (Determiner, Quantifier, etc.) can be represented by a single subtype only. For example, Quantifiers and Numerals – two subtypes of Quantifiers – cannot cooccur. However, subtypes of Modifers and Interrogators may cooccur and two subtypes of Determiners – Possessors and Demonstrative Adjectives – must, under certain conditions, coocur with the Definite Article.

E.g. Milyen és hány almát akarsz?
what:kind and how:many apples:ACC do:you:want
'What kind of apples do you want and how many?'

az apámnak a könyve
the father:s the book:his
'my father's book'

(*az apám a könyve)
*az apámnak könyve)

ez a könyv
this the book
'this book'

(*ez könyv)

- Order:

Both the possessor and the demonstrative adjective precede the definite article.

5. Selection and order among types of dependents

- Selection:
The article cannot occur with interrogators.

- Order:
Article, quantifier, and adjective are ordered as article before quantifier before adjective.

6. Selection and order between heads and dependents

- Selection:
Quantifiers and numerals cooccur with singular nouns.

e.g. sok ember
many person
'many people'

száz ember
hundred person
'a hundred people'

The demonstrative adjective and the head must agree in number and case; but if case is expressed both by affix and adposition at the same time, the demonstrative adjectives has only the affix (see section 3. above).

The definite article may occur with personal names.

- Order:
csak 'only' may of may not be adjacent to the head; if it is adjacent, it must precede the head; if non-adjacent, it may follow
is 'also' must be adjacent to the head and it must follow it

7. Comments on meaning

A construction involving a plural pronoun and a human 'with'-phrase is ambiguous between two interpretations:

mi a Marival
we the Mary-with
i. 'we (=I and others) with Mary'
ii. 'I and Mary'

8. Comments on sound form

The definite article and the demonstrative pronoun/adjective are near-homonymous.
The indefinite article and the numeral 'one' are homonymous except for stress.

9. Comments on similarities among noun-phrase-internal structures and between noun-phrase-internal and noun-phrase-external ones

Possessive affixes showing person and number of posessor on the possessee are near-homonymous with verb affixes showing person and number of the subject.

6.2. Hungarian - detailed (partial)

0. GENERAL INFORMATION ABOUT THE LANGUAGE

0. **Sources:** Tompa 1968, Moravcsik 1984, Kiefer 1985, Maracz 1986
1/ **Name:** Hungarian
2/ **Area:** main concentration in Hungary
3/ **Number of speakers:** around 10 million in Hungary; several millions scattered in other countries
4/ **Genetic affiliation:** Uralic; Finno-Ugric; Ugric; West
5/ **Grammatical characteristics**
   a/ **Constituent order**
      aa/ **verb and main arguments:** mostly SVO and SOV; directly preverbal focus
      bb/ **adpositions:** primarily postposed
      cc/ **affixes:** all inflection and nominal derivation is by suffixes; there are also prefixes on verbs
      dd/ **other:** ---
   b/ **Grammatical relations**
      aa/ **ergative-absolutive:** not prominent
      bb/ **nominative-accusative:** manifested in case marking and verb agreement
      cc/ **active-nonactive:** not present
      dd/ **topic-focus:** manifested in constituent order
      ee/ **other:** ---
   c/ **Morphological structure**
      aa/ **monomorphemic words / polymorphemic words** polymorphemic words common
      bb/ **in polymorphemic words**
         - **compounding:** common
         - **derivation:** common
         - **inflection:** common
      cc/ **in polymorphemic words**
         - **degree of phonological fusion:** relatively little
         - **separatist or cumulative expression:** some of both
   d/ **Syllable types** mostly CV, CCV, VC, VCC, V
   e/ **Other distinctive characteristics**
      - verb-object agreement in definiteness
      - vowel harmony

1. DOES THE LANGUAGE HAVE NOUN PHRASES?

Yes.

2. POSSIBLE HEADS AND DEPENDENTS

	affix	clitic	word	phrase	clause
A/ Nouns	-	-	HEAD MOD	HEAD QUANT MOD	HEAD COMPL
B/ Pronouns					
a/ personal	-	-	HEAD	HEAD	-
b/ reflexive	-	-	HEAD INTEN	HEAD	-
c/ reciprocal	-	-	HEAD	HEAD	-
d/ possessive	-	-	HEAD	HEAD DET	-
e/ demonstrative	-	-	HEAD	HEAD DET	-
f/ interrogative	-	-	HEAD INTER	HEAD INTER	-
g/ relative	-	-	HEAD DET QUANT MOD	HEAD	-
h/ indefinite	-	-	HEAD DET QUANT MOD	HEAD	-
C/ Adjectives	-	-	HEAD MOD	HEAD MOD	HEAD MOD
D/ Numerals					
a/ cardinal	-	-	HEAD QUANT	HEAD QUANT	-
b/ ordinal	-	-	HEAD DET	HEAD DET	-
c/ collective	-	-	-	-	-
d/ distributive	-	-	-	HEAD QUANT	-
E/ Quantifiers					
a/ existential	-	-	HEAD QUANT	HEAD QUANT	-
b/ universal	-	-	HEAD QUANT	HEAD QUANT	-
F/ Articles	-	DET	-	-	-
G/ Verbs	-	-	HEAD	HEAD	-
H/ Adverbs	-	-	MOD NEG INTEN	MOD	MOD

Examples:

A/ Nouns (i) as heads:

word: exhausts noun phrase:
János-t látom.
John ACC I:see 'I see John.'
does not exhaust noun phrase:
A **fal -at** látom.
the wall ACC I:see 'I see the wall.'

phrase: exhausts noun phrase:
Magas fal -at látok.
tall wall ACC I:see 'I see a tall wall.'
does not exhaust noun phrase:
A **magas fal -at** látom.
the tall wall ACC I:see 'I see the tall wall.'

clause: exhausts noun phrase:
Mondtam, **hogy jöjjön.**
I:said that he:should:come
'I said that he should come.'
does not exhaust noun phrase:
Azt mondtam, **hogy jöjjön.**
that:ACC I:said that he:should:come
'I said that he should come.'

Nouns (ii) as dependents:

word: **János-nak** a ház**a**
John GEN the house
'John's house'

phrase: **a fiú-nak** a ház**a**
the boy GEN the house
'the boy's house'

B/ Pronouns:

a/ Personal pronouns (as heads):

word: exhausts noun phrase:
Ő jött.
he/she came
'He/she came.'
does not exhaust noun phrase:
János és ő jött.
John and he/she came
'John and he/she came.'

phrase: exhausts noun phrase:
Te és ő jöttetek.
you$_{pl}$ and he/she came
'You$_{pl}$ and he/she came.'
does not exhaust noun phrase:
A fiúk közül ő és Mari jöttek.
the boys from:among he/she and Mary came
'Of the boys he, and Mary came.'

b/ Reflexive pronouns (i) as heads:

word: exhausts noun phrase:
Magunkat sajnáljuk.
ourselves we:are:sorry:for
'We are sorry for ourselves.'
does not exhaust noun phrase:
Magunkat is sajnáljuk.
ourselves also we:are:sorry:for
'We are also sorry for ourselves.'

phrase: exhausts noun phrase:
Magunkat is sajnáljuk.
ourselves also we:feel:sorry:for
'We feel sorry also for ourselves.'
does not exhaust noun phrase:
Magunkat is és őket is sajnáljuk.
ourselves also and them also we:feel:sorry:for
'We feel sorry both for ourselves and for them.

Reflexive pronouns (ii) as dependents:

word: **János maga** ment.
John himself went
'John himself went.'

c/ Reciprocal pronouns (as heads):

word: exhausts noun phrase:
Egymást szeretik.
each:other they:like
'They like each other.'
does not exhaust noun phrase:
Nem **egymást** szeretik.
not each:other they:like
'It is not each other that they like.'

phrase: exhausts noun phrase:
Egymás után mennek.
each:other after they:are:going
'They are going one after the other.'
does not exhaust noun phrase:
Nem **egymás után** mennek.
not each:other after they:are:going
'It is not one after the other that they are going.'

d/ Possessive pronouns (i) as heads:

word: exhausts noun phrase:
Sajátomból adok.
from:my:own I:am:giving
'I am giving from my own.'
does not exhaust noun phrase:
A **mienkből** adok.
the from:ours I:am:giving
'I am giving from ours.'

phrase: exhausts noun phrase:
A **mienkből** adok.
the from:ours I:am:giving
'I am giving from ours.'
does not exhaust noun phrase:
Csak a **mienkből** adok.
only the from:ours I:am:giving
'I am giving only from ours.'

Possessive pronouns (ii) as dependents:

word: az **én** könyvem
the my book:my
'my book'
phrase: **az én és a te** könyved
the my and the your$_{sg}$ book:your
'your$_{sg}$ book and mine'

e/ Demonstrative pronouns (i) as heads:
word: exhausts noun phrase:
Ezt **látom.**
this:ACC I:see
'I see this.'
does not exhaust noun phrase:
Ezt **is** **látom.**
this:ACC also I:see
'I see this, too.'
phrase: exhausts noun phrase:
Ezt **és** **azt** **látom.**
this:ACC and that:ACC I:see
'I see this and that.'
does not exhaust noun phrase:
Ezt **és** **a** **könyvet** **látom.**
this:ACC and the book:ACC I:see
'I see this and the book.'

Demonstrative pronouns (ii) as dependents:
word: **Ezt** **a** **könyvet** **látom.**
this:ACC the book:ACC I:see
'I see this book.'
phrase: **Ezt** **és** **ennyit** **kérek.**
this:ACC and this:much:ACC I:am:asking:for
'I want this and this much.'

f/ Interrogative pronouns (i) as heads:
word: exhausts noun phrase:
Kit **látok?**
whom I:see
'Who do I see?'
does not exhaust noun phrase:
A **fiúk** **közül** **kit** **látok?**
the boys from:among whom I:see
'Who do I see from among the boys?'
phrase: exhausts noun phrase:
A **fiúk** **közül** **kit** **látok?**
the boys from:among whom I:see
'Who do I see from among the boys?'
does not exhaust noun phrase:
A **fiúk** **közül** **ki** **és** **mikor** **jön?**
the boys from:among who and when is:coming
'From among the boys, who is coming and when?

Interrogative pronouns (ii) as dependents:
word: **Melyik** **fiú** **jön?**
which boy is:coming
'Which boy is coming?'
phrase: **Melyik** **fiú** **apja** **jön?**
which boy father:his/her is:coming
'Which boy's father is coming?'

g/ Relative pronouns (i) as heads:
word: exhausts noun phrase:
a **fiú,** **akit** **láttam**
the boy whom I:saw
'the boy whom I saw'
does not exhaust noun phrase:
a **fiú** **aki** **miatt** **jöttem**
the boy who because:of I:came
'the boy because of whom I came'
phrase: exhausts noun phrase:
a **fiú** **aki** **miatt** **jöttem**
the boy who because:of I:came
'the boy because of whom I came'
does not exhaust noun phrase:
Csak **amit** **elbirtunk** **vittunk** **el.**
only what:ACC we:could:carry we:took away
'We took only what we could carry.'

Relative pronouns (ii) as dependents:
word: **amelyik** **könyvet** **akarod**
whichever book you_:want
'whichever book you want'
phrase: **amelyik** **fiú** **könyvét** **akarod**
whichever boy book you_:want
'whichever boy's book you_ want'

h/ Indefinite pronouns (i) as heads:
word: exhausts noun phrase:
Semmi **-t** **nem** **látok.**
nobody ACC not I:see 'I see nothing.'
does not exhaust noun phrase:
Egy **semmi** **-t** **látok.**
a nothing ACC I:see
'I see a nothing.'
phrase: exhausts noun phrase:
Egy **semmi** **-t** **látok.**
a nothing ACC I:see
'I see a nothing.'
does not exhaust noun phrase:
Egy **nagy** **semmi** **-t** **látok.**
a big nothing ACC I:see
'I see a big nothing.'

Indefinite pronouns (ii) as dependents:
word: **Semmi** **hírem** **nincs.**
no news:my is:not
'I have no news.'
phrase: **Semilyen** **színű** **ruhám** **nincs.**
no:kind color:AFF dress:my not:is
'I have no dresses of any color.'

C/ Adjectives (i) as heads:
word: exhausts noun phrase:
Piros **-ak** **-at** **látok.**
the red PLU ACC I:see 'I see red ones.'
does not exhaust noun phrase:
A **piros-at** **látom.**
the red ACC I:see
'I see the red one.'
phrase: exhausts noun phrase:
A **piros-at** **látom.**
the red ACC I:see
'I see the red one.'

does not exhaust noun phrase:
A két piros-at látom.
the two red ACC I:see
'I see the two red ones.'

clause: exhausts noun phrase:
Értem amit mondasz.
I:understand what:ACC you:say
'I understand what you say.'

does not exhaust noun phrase.
Értem az -t amit mondasz.
I:understand that ACC what:ACC you:say
'I understand what you say.'

Adjectives (ii) as dependents:
word: Piros almát akarok.
red apple:ACC I:want
'I want red apples.'

phrase: Nagyon piros almát akarok.
very red apple I:want
'I want very red apples.'

clause: Olyan almát akarok, amely piros.
such apple:ACC I:want which red
'I want apples that are red.'

D/ Numerals:

a/ Cardinal numerals (i) as heads

word: exhausts noun phrase:
Kettő-t látok.
two ACC I:see 'I see two.'

does not exhaust noun phrase:
A kettő-t látom.
the two ACC I:see
'I see the two.'

phrase: exhausts noun phrase:
A kettő-t látom.
the two ACC I:see
'I see the two.'

does not exhaust noun phrase:
Azt a kettő-t látom.
those the two ACC I:see
'I see those two.'

Cardinal numerals (ii) as dependents:

word: Két embert látok.
two people:ACC I:see
'I see two people.'

phrase: Kétszer két embert látok.
two:times two people:ACC I:see
'I see two-times-two people.'

b/ Ordinal numerals (i) as heads:

word: exhausts noun phrase:
Hat-odik-ként jött be.
six ORD as came in
'He/she came in sixth.'

does not exhaust noun phrase
A hat-odik lett.
the six ORD became
'He became sixth.'

phrase: exhausts noun phrase:
A hat-odik lett.
the six ORD became
'He/she became sixth.'

does not exhaust noun phrase:
Sok közül a hat-odik lett.
many from:among the six ORD became
'He became sixth from among many.'

Ordinal numerals (ii) as dependents:

word: Első tanuló lett.
first student became
'He became the first (=best) student.'

phrase: Száz közül első tanuló lett.
hundred from:among first student became
'From among a hundred he became the first (=best) student.'

c/ Distributive numerals (i) as heads:

phrase: exhausts noun phrase:
Egyet -egyet adtam.
one:ACC one:ACC I:gave
'I gave one to each.'

does not exhaust noun phrase:
Csak egyet -egyet adtam.
only one:ACC one:ACC I:gave
'I gave only one each.'

Distributive numerals (ii) as dependents:

phrase: Egy-egy almát adtam.
one one apple:ACC I:gave
'I gave one apple each.'

E/ Quantifiers:

a/ Existential quantifiers (i) as heads:

word: exhausts noun phrase:
Sok -at látok.
many ACC I:see
'I see many.'

does not exhaust noun phrase:
Katonából sok -at látok.
soldiers-ELAT many ACC I:see
'Of soldiers I see many.'

phrase: exhausts noun phrase:
Katonából sok -at látok.
soldiers:ELAT many ACC I:see
'Of soldiers I see many.'

does not exhaust noun phrase:
Katonából nagyon sok -at látok.
soldiers:ELAT very many ACC I:see
'Of soldiers I see very many.'

Existential quantifiers (ii) as dependents:

word: Kevés almát adott.
few apple:ACC he/she:gave
'He/she gave few apples.'

phrase: Nagyon kevés almát adott.
very few apple:ACC he/she:gave
'He/she gave very few apples.'

b/ Universal quantifiers (i) as heads:
word: exhausts noun phrase:
Minden -t láttam.
everything-ACC I:saw
'I saw everything.'
does not exhaust noun phrase:
Nem **minden -t** láttam.
not everything ACC I:saw
'I did not see everything.'
phrase: exhausts noun phrase:
Nem minden -t láttam.
not everything ACC I:saw
'I did not see everything.'
does not exhaust noun phrase:
A szobában **nem minden -t** láttam.
the room:in everything ACC I:saw
'I saw everything in the room.'

Universal quantifiers (ii) as dependents:
word: **Minden almát** odaadott.
all apple:ACC he/she:gave:away
'He/she gave away all apples.'
phrase: **Majdnem minden almát** odaadott.
almost all apple:ACC he/she:gave:away
'He/she gave away almost all apples.'

F. Articles (as dependents):
(word:) **a** könyv
the book

G/ Verbs (i) as heads:
word: exhausts noun phrase:
Ir -ni akarok.
write INF I:want
'I want to write.'
does not exhaust noun phrase:
Regényeket **ir -ni** akarok.
novels write INF I:want
'I want to write novels.'
phrase: exhausts noun phrase:
Regényeket ir -ni akarok.
novels:ACC write INF I:want
'I want to write novels.'
does not exhaust noun phrase:
Számítógéppel **regényeket ir -ni** akarok.
with:computer novels:ACC write INF I:want
'I want to write novels on a computer.'

Verbs (ii) as dependents:
word: **Igyekvő** hallgatók jutalmat kapnak.
striving students award they:get
'Striving students receive awards.'
phrase: **Szorgalmasan igyekvő** hallgatók jutalmat kapnak.
diligently striving students award they:get
'Diligently striving students get awards.'

H/ Adverbs (i) as heads:
word: exhausts noun phrase:
Nem-et mondok.
not ACC I:say
'I say no.'
does not exhaust noun phrase:
Határozott **nem-et** mondok.
definite no ACC I:say
'I say a definite no.'
phrase: exhausts noun phrase:
Határozott nem-et mondok.
definite no ACC I:say
'I say a definite no.'
does not exhaust noun phrase:
Egy **határozott nem-et** mondok.
a definite no ACC I:say
'I say a definite no.'

Adverbs (ii) as dependents:
word: **Csak** almát akarok.
only apple:ACC I:want
'I want only apples.'
phrase: Kapható alma **Itália-ból.**
available apple Italy ELAT
'Apples from Italy are available.'
clause: A telefonbeszélgetés **miután hazajöttem** hosszú volt.
the phone:conversation after I:came:home was long
'The phone conversation which took place after I got home was long.'

3. THE INTERNAL STRUCTURE OF NOUN PHRASE HEADS AND DEPENDENTS

3.1. Nouns

A. Noun words

I. Inventory of constituent types

Stems, derivational affixes, inflectional affixes, adpositions.

II. Selection

a/ derivation

Nouns may be derived from Verbs, Adjectives, and other Nouns.
E.g. ír-ás "write-AFF" 'writing'
jó-ság "good-AFF" 'goodness'
tanár-ság "teacher-AFF" 'the fact of being a teacher'
János-é "John-AFF" 'possession of John'
János-ék "John-AFF" 'John and his group'
János-ka "John-AFF" 'little John'
Schmidt-né "Schmidt-AFF" 'Mrs. Schmidt'

b/ compounding

- N + N, e.g. kő-fal "stone-wall" 'stone wall'
  tanár-nő "teacher-woman" 'female teacher'
- Adj + N, e.g. vörös-bor "red-wine" 'red wine'
- N + N compounds may be Possessor + Possessee, e.g.
  őrült-ek-háza "madman:PLU-house:their" 'madhouse'

c/ reduplication

Involves vowel modification in one of the constituents.
E.g. dirib-darab 'small pieces' (darab 'piece')
lim-lom 'scattered junk' (lom 'junk')

d/ conversion:

Adjective and Noun: föld-alatt-i "ground-under-AFF"
Adj: 'underground'
N: 'subway'
dohányz-ó "smoke-AFF"
Adj: 'smoking'
N: 'smoking room'
Adverbial and Noun: dél-előtt "noon-before"
Adv: 'in the morning'
N: 'morning'
éj-jel "night-with"
Adv: 'in nighttime'
N: 'night'

e/ marking:

aa/ gender: No grammatical gender.

bb/ number: Common countable nouns show a singular-pural distinction in some contexts, with singular unmarked and plural affixed. Plural marking is different depending on whether the oun is possessed or unpossessed. E.g. lány 'girl', lány-ok 'girls' lány-om 'my daughter', lány-aim 'my daughters'.
Derived nouns of the type János-ék 'John and his group' are inherently plural as shown by verb agreement.

cc/ case: Nouns are marked for case either by affix or by adposition or by both. E.g. kávé-ból "coffee-from/of" 'from/of coffee'; kávé előtt "coffee before" 'before coffee'; város-on át "town-on across" 'across town'.
Tompa 1968 (206ff) lists 27 case affixes; Marácz (1986, 232f) lists 55 postpositions as "the most important ones".

Adpositions may be modified by adverbs.

dd/ person: Possessed nouns are marked for the person and number of their possessor. E.g. János(-nak a) kávé-ja "John (of the) coffee-HIS" 'John's coffee'. Some nouns obligatorily cooccur with possessive affixes: sárgája "yellow-its" 'egg-yolk' (*sárga 'egg-yolk'); bátyja "brother-HIS" 'his brother' (báty 'brother' uncommon). In some instances, possessive affixes differentiate between alienable and inalienable possession; e.g.

ablak-a "window-AFF" 'its window' (as part)
ablak-ja "window-AFF" 'his/her/its window" (as possession)

ee/ others: Some nouns have a superlative degree: leg-alj-a "most-bottom-its" 'the very bottom' (cf. leg-szebb "most-beautiful" 'most beautiful').

III. Order

In compounds, the head follows.
In reduplication, the constituent with the unaltered vowels generally follows.
All nominal affixes are suffixed.
Order of affixes:
The plural affix is directly adjacent to the stem in unpossessed nouns but it precedes the possessive affix in possessed nouns.
Adpositions are generally adjacent to the noun and they are postposed; but, with morphological modifications, they may be non-adjacent and/or preposed.

B. Noun phrases

SEE SECTION 4.

C. Noun clauses

I. Inventory of constituent types

Constituent types that occur in independent clauses; and the conjunction hogy 'that'.

II. Selection

Noun clauses are like independent clauses except for the presence of the conjunction hogy. The conjunction is obligatory if the clause is sentence-initial. In non-sentence-initial position, it is optional in some contexts and obligatory in others.

III. Order

The conjunction hogy is preposed to the clause.

3.2. Pronouns

3.2.1. Personal pronouns

A. Personal pronoun words

I. Inventory of constituent types

Stems, Plural Marker, Case Markers

II. Cooccurrence

Personal pronoun stems are monomorphemic in the nominative. Thus, none of the following occur:

a/ derivation
b/ compounding
c/ reduplication
d/ conversion

e/ marking:

aa/ gender: no gender distinctions. The nominative and accusative forms of personal pronouns are all restricted to animates, with the corresponding inanimate forms expressed by demonstrative pronouns.
Oblique forms of third person pronouns may be used in reference to both animates and inanimates.

bb/ number: Personal pronouns have singular and plural forms. Purals are suppletive in first and second person but regular in the third person, using the nominal plural suffix.

cc/ case: Case of personal pronouns, may – as for nouns – be expressed by affixes, adpositions, or both.

dd/ person: There are three persons. There are three commonly used degrees of politeness in the second persons. In the third person there is a distinction of same and different: ő 'he/she', ugyan-ő 'the same he/she'.

ee/ other
Personal pronouns, unlike nouns, cannot be possessed and thus they do not take possessive affixes.
Oblique forms of personal pronouns have emphatic forms; they involve the regular oblique form compounded with the nominative personal pronoun.

III. Order

Case affixes: whereas nominal case affixes are suffixed, for pronouns, the affix functions as a stem and the erson/number category is shown by possessive person/number suffixes.
E.g.: Feri-vel "Feri-with" 'with Feri'
vel-e 'with-HIS' 'with him'

Adpositions: whereas nominal adpositions are postposed, for pronouns, adpositions function as stems and the person/number category is shown by possessive person/number suffixes.
E.g.: Feri előtt "Feri in:front:of" 'in front of Feri'
előtt-e "in:front:of-HIS" 'in front of him'
Feri-n kívül "Feri-on except" 'except for Feri'
rajta kívül "on:HIS except" 'except for him'
In oblique emphatic personal pronouns, the nominative personal pronoun precedes the oblique stem.
E.g. vele 'with him' ő-vele "he-with:him" 'with him (EMPH)'

B. Personal pronoun phrases

I. Inventory of constituent types

Personal pronouns, negator (nem 'not'), intensifiers (csak 'only', is 'also', emphatic reflexives), complements, conjunctions

II. Selection

a/ determination: no
b/ quantification: no
c/ modification: no
d/ negation: yes
e/ interrogation: no
f/ intensification: yes
g/ complementation: yes
h/ coordination: yes
i/ reduplication: not generally
j/ stacking: no

Only one of each may occur: negator, intensifier, complement. However, one of all three may occur together.
Example: A magyarok közül nem csak én magam mentem.
the Hungarians from:among not only I myself went
'From among theHungarians, only I went by myself.'

Personal pronouns may be conjoined but not reduplicated or stacked. The number of times the conjunction occurs is either the number of conjuncts minus one or just one.

Examples: Te és ő és én mentünk
you and he/she and I went
'You and I went.'

Te, ő és én mentünk.
you he/she and I went
'You, he/she, and I went.'

III. Order

The intensifier csak 'only' must immediately precede the head; the intensifiers is 'also' and the emphatic reflexives must follow the head, with is immediately following and the emphatic reflexive imediately or non-immediately following. Complements may or may notbe adjacent to the head and they may precede or follow.

Conjunctions stand betwen conjuncts. If there is only a single occurrence of a conjunction, it must stand between the last two conjuncts.

3.2.2. Reflexive pronouns

A. Reflexive pronoun words

I. Inventory of constituent types

Stem, possessive pronouns, case markers

II. Selection

Reflexive pronouns are somewhat irregular possessed forms of the noun mag 'seed', 'pit.' The possessive affixes express person and number and they are suffixed to the stem.
E.g. mag-am "seed-MY" 'myself'
ön-mag-am "I-seed'MY" 'myself (emphatic)'
None of the following structural patterns apply:
a/ derivation
b/ compounding
c/ reduplication
d/ conversion

e/ marking:
aa/ gender
Reflexive pronouns show no gender distinctions.

bb/ number
Singular and plural.

cc/ case
As in nouns, case may be expressed by affixes, by adpositions, and by the combination of the two.
E.g.: - affixal case:
possessed noun: fal-á-val "wall-his-with" 'with his wall'
reflexive pronoun: mag-á-val "seed-his-with" 'with himself'
- adpositional case:
possessed noun: fal-a előtt "wall-his in:front:of" 'in front of his wall'
reflexive pronoun: mag-a előtt "seed-his in:front:of" 'in front of himself'

- affixal and adpositional case:
possessed noun: fal-á-n át "wall-his-SUPERESS across" 'across his wall'
reflexive pronoun: mag-á-n át "seed-his-SUPERESS across" 'across his wall'

dd/ person
As in personal pronouns, there are three persons.

ee/ other

Reflexive pronouns have emphatic forms involving the regular reflexive form compounded with ön 'you(POLITE)' e.g. magam 'myself', önmagam 'myself(EMPH)'.

III. Order

B. Reflexive pronoun phrases

a/ determination - no
b/ quantification - no
c/ modification - no
d/ interrogation - no
e/ negation - yes
f/ intensification - yes
g/ complementation - yes
h/ coordination - yes
b/ reduplication - no
c/ stacking - no

3.2.3. Reciprocal pronouns

A. Reciprocal pronoun word

I. Inventory of constituent types

'one', 'other,' case markers

II. Selection

a/ derivation - no
b/ compounding - yes
c/ reduplication - no
d/ conversion - no
e/ marking
aa/ gender - no
bb/ number - no
cc/ case - yes
dd/ person - no
ee/ other - no

Reciprocal pronouns are compounded out of 'one' and 'other.

Reciprocal pronouns must be marked for case. As in nouns, case marking may be either by affix or by adposition or ny a combination of the two.

E.g. János-nak "John-DAT" 'to John'
egymás-nak "each:other-DAT" 'to each other"
János előtt "John in:front:of" 'in front of John'
egymás mögött "each:other behind" 'behind each other'
János-on át "John-SUPERESS across" 'across John'
egymás-on át 'each:other-SUPERESS across" 'across each other'

III. Order

The morpheme 'one' precedes the morpheme 'other'.
Case markers are postposed.

B. Reciprocal pronoun phrase

I. Inventory of constituent types

Reciprocal pronoun, modifier, negator, complement, conjunction

II. Selection

a/ determination - no
b/ quantification - no
c/ modification - no
d/ interrogation - no
e/ negation - yes
f/ intensification - no
g/ complementation - no
h/ coordination - yes
b/ reduplication - no
c/ stacking - no

III. Order

Negator and csak 'only' precede the reciprocal pronoun; is 'also' follows. Complements may precede or follow.

3.2.4. Possessive pronouns

A. Possessive pronoun words

I. Inventory of constituent types

Two sets of stems; case markers.

II. Cooccurrence

Pronominal possessors have the same forms as personal pronouns except that the plural third person has the same form as the singular third person.

az **én** könyvem	"the my book:my"	'my book'
a **te** könyved	"the your$_s$ book:your$_s$"	'your$_s$ book'
az **ő** könyve	"the his/her book:his/her"	'his/her book'
a **mi** könyvunk	"the our book:our"	'our book'
a **ti** könyvetek	"the your$_p$ book:your$_p$"	'your$_p$ book'
az **ő** könyvük	"the their book:their"	'their book'

(cf. **én** irok 'we write'
te irsz 'you$_s$ write'
ő ir 'he/she writes'
mi irunk 'we write'
ti irtok 'you$_p$ write'
ők irnak 'they write')

Nominally used possessive pronouns are monomorphemic although their beginning part resembles the shapes of personal pronouns.

		cf.	
enyém	'mine'	én	'I'
tied	'your$_s$'	te	'you$_s$'
övé	'his/her'	ő	'he/she'
miénk	'our'	mi	'we'
tietek	'your$_p$'	ti	'you$_p$'
övék	'their'	ők	'they'
sajat	'own'		

a/ derivation - no
b/ compounding - no
c/ reduplication - no
d/ conversion - no
e/ marking
aa/ gender - no (all possessive pronouns refer to animate possessor; in reference to inanimate possessors demonstrative pronouns are used)
bb/ number - yes
cc/ case - yes if nominally used: behave like nouns
dd/ person - yes
ee/ other - no

III. Order

Case markers are postposed.

B. Possessive pronoun phrases

I. Inventory of constituent types

Possessive pronouns, negator, intensifier, conjunction.

II. Selection

a/ determination - no
b/ quantification - no
c/ modification - no
d/ interrogation - no
e/ negation - yes
f/ intensification - yes
g/ complementation - no
h/ coordination - yes
i/ reduplication - no
j/ stacking - no

III. Order

Negator and csak 'only precede the head; is 'also' follows.

The conjunction is between conjuncts; if these is only a single conjunction, it must be betweenthe last two conjuncts.

3.2.5. Demonstrative pronouns

A. Demonstrative pronoun words

I. Inventory of constituent types

II. Selection

Subtypes: proximate and distal; two-way distinction within each.

ez 'this'	az 'that'
emez 'the other one of these'	amaz 'the other one of those'

The proximate-distal information applies to many subtypes of demonstrative pronouns:

efféle 'of this kind'	affele 'of that kind'
ilyen 'of this kind'	olyan 'of that kind'

ekkora 'of this size' akkora 'of that size'

Demonstrative pronoun words are monomorphemic but there are phonological resemblences among them. Front-vowel forms are proximate, back-vowel forms are distal.

a/ derivation - no
b/ compounding - no
c/ reduplication - no
d/ conversion - no
e/ marking
aa/ gender - no (nominative and accusative forms are not used for humans)
bb/ number - yes (singular and plural; regular nominal formation)
cc/ case - yes if nominally used: behave like nouns

If used nominally: all affixal, adpositional, and combined case marking is possible as with nouns. If used attributively: all affixal and adpositional cases possible; adpositions are compounded with the demonstrative adjective. No case marking that involves both affix and adposition; e.g.;
a hid-on "the bridge-AFF" 'on the bridge'
az-on a hid-on "that-AFF the bridge-AFF" 'on that bridge'
a hid mellett "the bridge next:to" 'next to the bridge'
a-mellett a hid mellett "that-next:to the bridge next:to" 'next to that bridge'
hid-on át "the bridge-AFF across" 'across the bridge'
*az-on át a hid-on at "that-AFF across the bridge-AFF across" 'across that bridge'
az-on a hid-on át "that-AFF the bridge-AFF across" 'across that bridge'

dd/ person - yes
Possessive affixes possible: melyik-unk? "which-POSS" 'which from among us?'

ee/ other - no

III. Order

B. Demonstrative pronoun phrases

I. Inventory of constituent types

II. Selection

a/ determination - no
b/ quantification - no
c/ modification - yes
d/ interrogation - no
e/ negation - yes
f/ intensification - yes
g/ complementation - no
h/ coordination - yes
i/ reduplication - no
j/ stacking - no

III. Order

3.2.6. Relative pronouns

A. Relative pronoun words

I. Inventory of constituent types

II. Selection

Relative pronouns consist of an interrogative pronoun and a- homonymous with the definite article. The a- may be omitted in obsolete and literary style. The a- precedes the interrogative part.
For example: ki? 'who?' a-ki 'who'
mikor? 'when?' a-mikor 'when'

a/ derivation - no
b/ compounding - yes
c/ reduplication - no
d/ conversion - no
e/ marking
aa/ gender - no (Inanimate-animate distinction is maintained: aki 'who' and ami 'what'.)
bb/ number - yes
Singular and plural distinction is maintained for nominal and adjectival relative pronouns:
aki 'who(SING)' aki-k 'who(PLU)'
ami 'what(SING)' ami-k 'what(PLU)'
amely 'which(SING)' amely-ek 'which(PLU)'
cc/ case - yes; all affixal, adpositional and combined case markings are available.
dd/ person - yes; possessive affixes possible: amelyik-ötök "which-POSS" 'which from among you'
ee/ other - no

III. Order

B. Relative pronoun phrases

I. Inventory of constituent types

II. Selection

a/ determination - no
b/ quantification - no
c/ modification - no
d/ interrogation - no
e/ negation - yes
f/ intensification - yes
g/ complementation - no
h/ coordination - yes
i/ reduplication - no
j/ stacking - no

III. Order

3.2.7. Interrogative pronouns

A. Interrogative pronoun words

I. Inventory of constituent types

II. Selection

Subtypes: ask after quality, quantity (numerical or mass), identification ('which within a restricted set', 'in which position in a sequence' (=wievielte? in German)); these are the same distinctions as for interrogative pronouns in nominal use and the same form, too.

Interrogative pronouns are generally monomorphemic although there are some phonological resemblences among them.

a/ derivation - no
b/ compounding - no
c/ reduplication - no
d/ conversion - no
e/ marking
aa/ gender - no (Inanimate-animate distinction is maintained: ki 'who?' and mi 'what?'.)
bb/ number - yes
Singular and plural distinction is maintained for nominal and adjectival interrogative pronouns:
ki? 'who? ki-k? 'who(PLU)?'
mi? 'what? mi-k? 'what(PLU)?'
cc/ case - yes; all affixal, adpositional and combined case markings are available.
dd/ person - yes; possessive affixes possible:
mi-d? "what-POSS" 'what of yours?'
mi-jei-d? "what-PLU-POSS" 'what(PLU) of yours?
ee/ other - no

III. Order

B. Interrogative pronoun phrases

I. Inventory of constituent types

II. Selection

a/ determination - no
b/ quantification - no
c/ modification - no
d/ interrogation - no
e/ negation - yes
f/ intensification - yes
g/ complementation - no
h/ coordination - yes
i/ reduplication - no
j/ stacking - no

III. Order

3.2.8. Indefinite pronouns

A. Indefinite pronoun words

I. Inventory of constituent types

II. Selection

Indefinite pronouns include interrogative forms plus vala, bár, akar. E.g. vala-ki "vala-who" 'someone', akár-hol "akár-where" 'anywhere'.

Negative forms include interrogative forms plus negative elements, e.g. semelyik, semennyi, semilyen

a/ derivation - no
b/ compounding - yes
c/ reduplication - no
d/ conversion - no
e/ marking
aa/ gender - yes: animate and inanimate
bb/ number - yes: singular and plural
cc/ case - yes; all affixal, adpositional and combined case markings are available.
dd/ person - yes; possessive affixes possible:
akármi-m "whatever-POSS" 'whatever of mine'
valamelyik-ötök "whichever-POSS" 'whichever from among you'
ee/ other - no

III. Order

Interrogative element follows the other component.

B. Indefinite pronoun phrases

I. Inventory of constituent types

II. Selection

a/ determination - no
b/ quantification - no
c/ modification - no
d/ interrogation - no
e/ negation - yes
f/ intensification - yes
g/ complementation - yes
h/ coordination - yes
i/ reduplication - no
j/ stacking - no

III. Order

3.3. Adjectives

A. Adjective words

I. Inventory of constituent types

II. Selection

a/ derivation

Adjectives may be may be derived from Nouns, Adverbs, Numerals, Verbs, and other Adjectives

Budapest-i "Budapest-AFF" 'being from Budapest'
távol-i "far-AFF" 'distant'
négy-es "four-AFF" 'consisting of four' or 'bearing the number four'
érkez-ő "arrive'AFF" 'arriving'
elolvas-ott "read-AFF" 'having been read'
csinos-ka "pretty-AFF" 'pretty and cute'

b/ compounding

Adjectives may be compounded-and-derived out of
aa/ Adjective and Noun, in this order
e.g. fehér-haj-ú "white-hair-AFF" 'having white hair'
(cf. *haj-ú "hair-AFF" 'having hair')
bb/ Noun and Adjective, in this order
e.g. kutya rossz "dog bad" 'very bad'
cc/ Noun and Postposition,
e.g. iskola-mögött-i "school-behind-AFF" 'being behind the school'

c/ reduplication: with vowel modification:
ici-pici 'tiny' (cf. pici 'tiny')
tarka-barka 'colorful' (cf. tarka 'colorful')

d/ conversion - N/Adj

e/ marking:
aa/ gender: none
bb/ number: none if used attributively; if used nominally, singular and plural
cc/ case: none if used attributively; if used nominally, like for nouns
dd/ person: no
ee/ other: - comparative: affix
- superlative: comparative affixe and superlative affix
- no others if used attributively

III. Order

In reduplication, the constituent with the unaltered vowel is generally word-final.

The comparative affix is suffixed; the superlative affix is preposed.

B. Adjective phrases

I. Inventory of constituent types

II. Selection

a/ determination
b/ quantification
c/ modification
d/ interrogation
e/ negation
f/ intensification
g/ complementation
h/ coordination
i/ reduplication
j/ stacking

III. Order

C. Adjective clauses

I. Inventory of constituent types

II. Selection

III. Order

3.4. Numerals

Subtypes: - cardinal numerals
- ordinal numerals
- collective numerals (not adnominal)
- distributive numerals

3.4.1. Cardinal numerals

A. Cardinal numeral words

I. Inventory of constituent types

II. Selection

Monomorphemic: 1-10, 20, 30, 100, 1000, million, milliard, billion; otherwise compounded out of nominative or case-marked numeral stems.

a/ derivation - no
b/ compounding - yes
c/ reduplication - no
d/ conversion - no
e/ marking
aa/ gender - no
bb/ number - yes if nominally used
cc/ case - yes if nominally used
dd/ person - yes; e.g. öt-ünk "five-POSS" 'five of us'
ee/ other - no

III. Order

In compounded numerals, the head follows.

B. Cardinal numeral phrases

I. Inventory of constituent types

II. Selection

III. Order

3.4.2. Ordinal numerals

A. Ordinal numeral words

I. Inventory of constituent types

II. Selection

- 'first' and 'second' are irregular
- from 'third' on: cardinal numeral stem, affix marking fractions, ordinal affix, in this order
  e.g. ǫ̃t-ə̃d-ik 'fifth'
  ǫ̃t 'five'
  ǫ̃t-ə̃d 'fifth'

III. Order

B. Ordinal numeral phrases

I. Inventory of constituent types

II. Selection

III. Order

3.4.3. Distributive numerals (phrases)

I. Inventory of constituent types

II. Selection

Binary reduplication of cardinal numerals; e.g. eqv-eqv "one-one" 'one each'

III. Order

3.5. Quantifiers

Subtypes: - existential
- universal

3.5.1. Existential quantifiers

A. Existential quantifier words

I. Inventory of constituent types

II. Selection

Not clearly polymorphemic but some include interrogative/relative/indefinite pronoun stems; many are homonymous with indefinite pronouns

III. Order

B. Existential quantifier phrases

I. Inventory of constituent types

II. Selection

III. Order

3.5.2. Universal quantifiers

A. Universal quantifier words

I. Inventory of constituent types

II. Selection

Probably monomorphemic.

III. Order

B. Universal quantifier phrases

I. Inventory of constituent types

II. Selection

III. Order

3.6. Articles (words)

Subtypes: definite, indefinite

I. Inventory of constituent types

II. Selection

Monomorphemic (definite article resembles distal demonstrative; indefinite article is homonymous with cardinal numeral 'one')

No marking.

III. Order

3.7. Verbs

A. Verb words
I. Inventory of constituent types

II. Selection

III. Order

B. Verb phrases

I. Inventory of constituent types

II. Selection

III. Order

3.8. Adverbs

A. Adverb words

I. Inventory of constituent types

II. Selection

a/ derivation: from Adjectives, Numerals, Verbs
e.g. gyors-an "swift-AFF" 'swiftly'
öt-en "five-AFF" "in a group of five'
nevet-ve "laugh-AFF" 'laughingly'
b/ compounding - yes
c/ reduplication - no
d/ conversion - yes
e/ marking: aa/ gender: none
bb/ number: none
cc/ case: none
dd/ person: none
ee/ other: comparative and superlative degrees

III. Order

B. Adverb phrases

I. Inventory of constituent types

II. Selection

III. Order

4. SELECTION AND ORDER AMONG SUBTYPES OF EACH DEPENDENT TYPE

5. SELECTION AND ORDER AMONG TYPES OF DEPENDENTS

6. SELECTION AND ORDER BETWEEN HEADS AND DEPENDENTS

7. COMMENTS ON MEANING

8. COMMENTS ON SOUND FORM

9. COMMENTS ON SIMILARITIES AMONG NOUN-PHRASE-INTERNAL STRUCTURES AND BETWEEN NOUN-PHRASE-INTERNAL AND NOUN-PHRASE-EXTERNAL ONES

7. Notes for further work

Further work is needed by way of adding more detail to and, possibly, by modifying parts of the general checklist.

a/ additions

The general checklist is its present form leaves uncharted many details of noun-phrase-internal structure. Although it is presumably true that all aspects of noun-phrase-internal structure have a logical place in the questionnaire, prompts would need to be added to force the user of the list to specify detailed information. For example, the Lingua Descriptive Series Questionnaire (Comrie and Smith 1977) specifies a large number of alternatives for deictic pronouns and for case systems; these should be listed in the checklist in the form of multiple-choice items.

The checklist needs to be further tested for coverage. The five additional questionnaires prepared by Corbett, Gil, Koptjevskaja-Tamm, and Plank mentioned above (page 44) need to be inspected to see if all relevant descriptors mentioned in them are part of the general checklist; if not, the general list should be expanded accordingly. Also, it is important to test the list on various languages.

Constraints on the cooccurrence and ordering of antecedents and anaphors is not mentioned anywhere in the checklist. descriptors should be added to highlight this structural aspect.

In general, it is important to reduce the need for discursive answers as much as possible by making the descriptors Yes/No or multiple-choice type.

Definitions should be added for the dependent types (Determiner, Quantifier, etc.).

It would be very useful to work out a representative data sample as a companion to the general checklist.

b/ modifications

Here are some problematic aspects of the general checklist:

1/ Free and bound definiteness markers call for being recorded at two different points in the questionnaire: bound markers would be part of "marking" under "nouns", while free ones would come under "articles" - a separate constituent type on a par with nouns. The same holds for free and bound plural marking: affixal plural would go under "nouns" but plural words (cf. Dryer 1989) would have to be a separate constituent type. This is not good: there should be a single descriptor regarding the occurrence of definiteness and plural marking in a language, with the bound versus free status of the marker given secondarily. There is a similar problem with case markers and adpositions. In the present version, adpositions are considered to be markers along with case affixes; but this is not quite justified since markers are generally understood

as bound forms.

ii/ The category "Interrogator" as a dependent type on a par with "Determiner", "Modifier", and "Quantifier" is problematic; some interrogators – such as which in which book – are determiners, others are modifiers (what kind of book) and yet others, quantifiers (how many books). Perhaps "Interrogator" should be a subcategory of determiners, quantifiers, and modifiers, rather than a separate class of dependents.

iii/ What, if any, is the difference between nominalization and noun-phrase-head use? For example, if an adjective serves as the head of a noun phrase, has it been nominalized by conversion or does it continue to be an adjective which happens to function as noun phrase head?

iv/ It is bothersome that the label "quantifier" occurs both as a constituent type on a par with adjectives and nouns and as a dependent type on a par with determiners and modifiers.

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EUROTYP

THEME 7: NOUN PHRASE STRUCTURE

WORKING PAPERS

1. Frans Plank, Suffix Copying as a Mirror-Image Phenomenon.
   (February 1990)
   Published in: Linguistics 28 (1990) 1039-1045.

2. Frans Plank, On the Selective Elaboration of Nominal or Pronominal Inflection.
   (May 1990)

3. Greville G. Corbett, Gender and Gender Systems.
   (June 1990)

4. Edith A. Moravcsik, Descriptors of Noun-Phrase-Internal Structure.
   (August 1990)

5. Greville G. Corbett, Agreement: An Overview.
   (September 1990)

6. Frans Plank, Review of *Agreement in Natural Language*, ed. by Michael Barlow & Charles A. Ferguson, Stanford: CSLI, 1988.
   (October 1990)

7. Maria Koptjevskaja-Tamm, Action Nominal Constructions in the European Languages.
   (November 1990)

8. Jim Hurford, An Inventory of Noun Phrase Universals: Format and Specimen List.
   (November 1990)

9. Greville G. Corbett, The Head of the Noun Phrase: Evidence from Russian Numeral Expressions.
   (January 1991)

10. Frans Plank, Inflection and Derivation.
    (March 1991)

11. Frans Plank, On Determiners. 1. Ellipsis and Inflection; 2. Co-occurrence of Possessives.
    (April 1991)

12. David Gil, Universal Quantifiers: A Typological Study.
    (April 1991)