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Expert Advisory Group on
Language Engineering Standards

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ELM-IT: EAGLES Specifications for Italian morphosyntax
Lexicon Specification and Classification Guidelines

EAGLES Document EAG–CLWG–ELM–IT/F

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2 Introduction: General structure of the Guidelines

The aim of the present document is to offer a concrete example of how the EAGLES recommendations for the encoding of morphosyntactic information in lexicons presented in the document by Monachini and Calzolari 1995 are applied to Italian.
In particular, in order to accomplish the task of practically encoding a lexicon at the morphosyntactic level, complete **guidelines**, i.e. clear criteria and tests for the application of the above mentioned specifications are provided.

This experiment has been carried out in parallel on three other European languages within the framework of the EAGLES Validation Task of EAGLES Lexicon Morphosyntax Working Group, giving rise to four parallel documents containing the guidelines for lexicon encoding of four languages: French (Von Rekovsky 1995), German (Teufel S. 1995), English (Teufel S. 1995b) and Italian (the present document). For further details about the objectives of the present work, see the introduction by Heid 1996.

The methodology, agreed on and followed by the partners working on the different languages, foresees the steps described below (1.1)

2.1 Methodology adopted in this Task

Each of the EAGLES main categories is given a section: *nouns*, *verbs*, *adjectives*, *adverbs*, *determiners*, *pronouns*, *articles*, *adpositions*, *conjunctions*, *numerals*, *interjections*, *residuals*. Each section is structured internally according to the principles explained in the following.

2.1.1 Values pertinent to a given language

Starting from the specifications proposed in the multilayered EAGLES proposal, that – it is worthwhile reminding here – have been collected in a very broad multi-lingual and multi-purpose approach, the first operation towards the production of guidelines for the practical encoding of a lexicon is the **recognition of the set of values** pertinent to the language in analysis.

For each of the categories, the table presented in the EAGLES Morphosyntactic document is displayed. Those features pertinet to Italian are marked in bold. In such a way, the level reached in the encoding for Italian is immediately visualized (see, e.g., table 2.1. for Nouns).

2.1.2 Logic relationships between values

Once the attribute-value pertinent set is circumscribed, another requisite of the provision of guidelines is the detailed **description of the logic relationships between the values** of the system pertinent to the language in analysis, in the cases in which the values belong to different levels.

This point is, in our opinion, particularly crucial. As already explained in the Morphosyntax document, in EAGLES all the lexicon specifications constituting the proposal have been collected together in a large repository, articulated on different levels of obligatoriness. They constitute a redundant inventory of the information which, in a bottom-up approach, have been found actually encoded in existing lexicons of different languages for different purposes. This set cannot be implemented as such, but each language has to pick up the relevant values, specifying its system and internal constraints.
The language specific applications presented in the EAGLES document are integrating part of the proposal, in the sense that constitute the required instantiation and implementation of the proposal itself. In these applications, the relations between values can be deduced on the basis of the semantics and the actual exemplifications. This, however, can cause misinterpretation.

In this Validation task, for each language, a formalized system readily has been provided. The aim is to obtain a structured inventory, specifying the logic relationships between the values, in order to make others able of consistently interpret their semantics itself.

Following a first suggestion carefully explained in a report by Teufel 1995 an example of how the tables display these relationships will be given here.

Let's assume that the Case system displayed in the EAGLES proposal is our universe and the values the objects whose relations are to be formalized.

The case system proposed for Nouns at the level EAG-L2 contains the values `nominative, genitive, dative, accusative`. For any other value presented at a different level, the relationships entertained with the objects of this universe should be specified, as the points below show.

- The value `vocative`, presented for Greek at the language specific level, constitutes an **addition** to the system.
- The value `indeclinable`, always for Greek, represents a case of non-applicativity of the attribute, or **neutralization**.

The Case system proposed for the Pronoun PoS foresees the `oblique` value:

- `oblique` is a `meta-value` which has the function of **replacement** of the values `dative, accusative`.

Let's consider another typical relationship. At the L1 of the EAGLES proposal, the Gender universe is split into three values `masculine, feminine, neuter` and the Number between `singural, plural`.

- The value `common` for Gender and `invariant` for Number presented for Italian, do not consitute a simple addition to the system. They rather represent a **disjunction** relation of the values respectively `masculine` and `feminine` and `singular` and `plural`. They are, in other words, `meta-values`, multilabels with the semantics of disjunction.

In the tables, these interrelationships can be expressed for each language, by using **indices** added to the values in analysis.

Practically, (see table 2.1 for Nouns) the value set `masculine, feminine, common`, highlighted as the Italian Gender universe (`neuter` is not relevant), will receive the following indices:

$$\mathtt{masc}_1$$
$$\mathtt{femm}_1$$
$$\mathtt{comm}_{\mathtt{D1}}$$

The values `feminine` and `masculine` are given a numerical index – `1` –; `common`, the value added to the EAGLES L1 at the language specific level L2b for Italian, receives the same numerical index pointing to the values it disjoints, and is further labelled with the index `D` for the disjunction relation.

We can use, for example, **D** for the disjunction relation, **R** for the replacement relation, **A** for the addition relation. Please note that this last does not need numerical indices, since the values are simply added to the system.

2.1.3 Constraints in the application of attributes and values

The subsequent table (see e.g. table 2.2. for nouns) shows the type hierarchy of the category, displaying the **hierarchical relationships between subcategories** and the morphosyntactic features which are applicable to them. The table appears subdivided into two zones. There is no hierarchical relation between features of the second zone; they *cross-classify* the feature space.
In such a way, **constraints in the application of an attribute or a value** – or a set of attributes or values – in presence of a given attribute or value are specified (e.g. `common` Gender does not apply to `proper` nouns or, `Person` with all its values does not apply to `Non-finite` forms in Italian verbs, table 3.2).
Why a typed hierarchy has been chosen? That has been considered a good mean to translate dependencies and constraints between features and values into a formalism – which makes use of Type Feature Structures (TFS) –, and to handle them with rigorous computational techniques rather than leaving them to a human control.

2.1.4 Semantics of the PoS and attribute-values

The clear definition of the **semantics** of the PoS, with clear tests for the inclusion of an item in a given PoS, and the semantics of attributes and values, with criteria for the encoding is considered another important requirement of the development of guidelines for lexicon encoding.

Each main category section starts with a description of the semantics of the class (`pos`-values section). As already explained in Teufel 1995, `pos` is a special type of feature; as `pos` encodes our main categories, its values have to appear in different sections, in contrast to all other features.

2.1.5 Transcategorization phenomena

Another crucial point in the production of guidelines is constituted by transcategorization phenomena: is an item, e.g. a past participle, to be encoded as a verb, as a noun or as both? These questions have been addressed in the form of delimitation tables which will be be useful more for a human annotator, but can also serve to deepen the semantics of a PoS. Mention to corpus tagging issues, sometimes, are also present.
Transcategorization phenomena or possible confusion with other classes/features is treated in the beginning of each main category section under the heading *transcategorization phenomena*.

2.1.6 Single Feature section

For each feature apart from `pos`, there is a single subsection for the description of the feature and all its values within the given main category section. A table explains the central semantics of each value by listing subclasses of the class and giving examples. General criteria for the choice of the treated value are described in a written section.
Confusion classes are treated pairwise for all combinations where confusion is possible. We deliberately chose examples which are very close to each other, in order to shed light on the exact borderline between two confusing contexts. Examples are always given in relevant context (sentences or parts thereof, where enough for understanding).

2.1.7 Wordform index

An index of all the wordforms dealt with in our guidelines, pointing to the pages where the labels for these wordforms are treated and naming the possible tags for the wordform, is proposed as an appendix.

3 Noun

3.1 Table in the Morphosyntax document

N	**Type**	**Gend**	**Numb**	Case	Count	Defin	Inflect	Declin
L0	**N O U N**							
L 1	**com** **prop**	$\mathbf{m}_1$ $\mathbf{f}_1$ n	$\mathbf{sg}_1$ $\mathbf{pl}_1$					
L 2				nom gen dat acc	cou mass			
L 2 b		It $\mathbf{c}_{D1}$ Du f(m) Du cont Sp trns Sp notr	It $\mathbf{n}_{D1}$	Gr voc Gr ind		Da def Da indf Da unmk	Ge weak Ge strg Ge mix	Ge no Ge adject

3.2 Type hierarchy table

N O U N		
Feature	**Values**	
pos	noun	
type	com	prop
numb gend	sg, pl, n m, f, c	sg, pl m, f
Example:	casa, libro, citta' case, libri, citta'	Monica, Mario Americhe, Appennini

3.3 pos-value noun

3.3.1 Central semantics of value noun

Morphological criteria:

– the noun carries the termination mark of Gender (*amico/amica*) and number (*amico/amici*);

Syntactic criteria:

– the noun combines with other PoS' (det/adj) giving rise to Noun Phrases of which the noun constitutes, in general, the head. The head regulates the agreement mechanism: *Il mio caro amico parte/ I miei cari amici partono.*

"Presentational"/graphical criteria:

– Proper Nouns are capitalized: *Mario, Rossi, i Borboni, le Alpi.* It should be noted that all capitalized nouns are not proper nouns: hence, this criterion is necessary but not sufficient.

pos = noun	
Description	**Examples**
Common nouns	**uomo**/noun , **amico**/noun , **febbraio**/noun , **martedi**/noun
	insegnante/noun , **rosa**/noun , **computer**/noun , **citta'**/noun
Proper nouns	**Monica**/noun , **Pisa**/noun , **Rossi**/noun , **Galileo**/noun
	Alpi/noun , **Tevere**/noun , **Fiat**/noun , **Sardegna**/noun

3.3.2 Transcategorization phenomena with other pos-values

There are members of other PoS which can carry morphological and syntactic features of the nouns. They can:

– be inserted in an NP: l'agire
– cooccur with the adj: un ricco egoista
– govern a PP: il bello della vita

Transcategorization phenomena or confusions can be made between the `pos` values `noun` and `adjective`, `noun` and `verb`, `noun` and `conjunction`, `noun` and `adverb`, `noun` and `determiner`, `noun` and `pronoun`, `noun` and `numeral`, `noun` and `interjection`.

pos=noun		pos=adj	
Description	**Example**	**Description**	**Example**
lexicalized nominalized adjectives nominal head of NP	il **bello**/`noun` della vita	adjectival forms used in an attributive way	un uomo **bello**/`adj`
	un **antibiotico**/`noun` potente		un medicinale **antibiotico**/`adj`
Inhabitants of places	Gli **italiani**/`noun`	Inhabitants in attributive adjectival distribution	Gli uomini **italiani**/`adj`
nominalized present participles	i **credenti**/`noun`	present participles used in an adjectival context	cattolici molto **credenti**/`adj`
	ho preso un **calmante**/`noun`		una tisana **calmante**/`adj`
	i **militanti**/`noun` del partito		sono comunisti **militanti**/`adj`
nominalized past participles	il **passato**/`noun`	adjectivally used past participles	l'anno **passato**/`adj`
colour	il **rosa**/`noun` e' un colore pastello	colour as qualification	una camicetta **rosa**/`adj`
noun	il giocatore e' un **esterno**/`noun` destro	adjective	misura il perimetro **esterno**/`adj` della casa
noun (comparative adj.)	i **migliori**/`noun` sono quelli che se ne vanno	comparative adjective	gli anni **migliori**/`adj` della nostra vita
noun (superlative adj.)	rappresenta l' **ottimo**/`noun` delle condizioni	superlative adjective	e' un **ottimo**/`adj` tecnico

pos=noun		pos=verb	
Description	**Example**	**Description**	**Example**
nominalized infinitives	i conti del **dare**/`noun` e dell' **avere**/`noun`	infinitives in verbal context	Non posso **dare**/`verb`
nominalized past participles	la **ritenuta**/`noun` d'acconto	past participles used in a verbal context	Maria e' stata **ritenuta**/`verb` idonea
	il **passato**/`noun`		oggi ormai e' **passato**/`verb`
	e' un **detenuto**/`noun` modello		il record **detenuto**/`verb` da Tomba
nominalized present participle	i giovani **amanti**/`noun`	present participle used in a verbal context	**amanti**/`verb` della vita
	e' un **militante**/`noun` del partito		Mario, **militante**/`verb` nelle fila ...

pos=noun		pos=conj	
Description	**Example**	**Description**	**Example**
conjunction inserted in a NP	con i **se**/`noun` e i ma	conjunction	non so **se**/`conj, type=subor` verro'
	con i se e i **ma**/`noun`		mangio, **ma**/`conj, type=coor` non ingrasso

pos=noun		pos=adv	
Description	**Example**	**Description**	**Example**
weekdays used as nouns	Il **sabato**/`noun` e' il giorno	weekdays used adverbially	**sabato**/`adv`
degree adverbs inserted in NP	il **troppo**/`noun` stroppia	adverbs	ho dormito **troppo**/`adv`
	il **meno**/`noun` che tu possa fare		spendi **meno**/`adv` che puoi
place adverbs inserted in NP	non chiedermi il **dove**/`noun` e il quando	adverbs	**dove**/`adv` vai?
noun	fare il **bene**/`noun` degli altri	adverb	fai **bene**/`adv` i tuoi conti

pos=noun		**pos=det**	
Description	**Example**	**Description**	**Example**
determiner inserted in a NP	formano un **tutto**/`noun` piacevole	determiner	mangia **tutto**/`det` il dolce

pos=noun		**pos=pron**	
Description	**Example**	**Description**	**Example**
pronoun inserted in a NP	ho fatto di **tutto**/`noun`	pronoun	ecco il dolce, ma non mangiarlo **tutto**/`pron`
noun	ho fatto una **cosa**/`noun`	pronoun	dimmi **cosa**/`pron` ti occorre
	ci manca un **niente**/`noun`		non gli hai detto **niente**/`pron`
	la teoria dei **quanti**/`noun`		**quanti**/`pron` ne vuoi?

Antoher typical transcategorization phenomenon verifies when the `possessive pronoun` is used absolutely as a `noun`, becoming synonymous of the understood noun itself and giving rise to a sort of fixed expressions. Some dictionaries/grammars do not account for this phenomenon among the delimitation problems between pronoun and noun but still consider the absolute use as a pronominal one. Anyway, some examples are accounted for here and in the pronoun section:

pos=noun		**pos=pron, type=poss**	
Description	**Example**	**Description**	**Example**
noun = parents	i **miei**/`noun` sono piu' anziani dei tuoi	pronoun	questi abiti sono piu' malconci dei **miei**/`pron`
noun = what is due to me	datemi il **mio**/`noun`		tuo figlio e' piu' grande del **mio**/`pron`
noun = opinion	voglio dire la **mia**/`noun`		la tua carica e' piu' importante della **mia**/`pron`
noun = letter	dopo che e'arrivata l'ultima **tua**/`noun`		la mia volonta' e' meno forte della **tua**/`pron`
noun = allies	arrivano i **nostri**/`noun`		sono piu' belli dei **nostri**/`pron`

pos=noun		**pos=num**	
Description	**Example**	**Description**	**Example**
noun	bottiglie da un **quarto**/`noun`	numeral	ho letto il **quarto**/`num` capitolo
	ho preso un bel **nove**/`noun` in latino		occorrono **nove**/`num` mesi

pos=noun		**pos=intj**	
Description	**Example**	**Description**	**Example**
noun	fu un **addio**/`noun` triste	interjection	**Addio**/`!` intj
	ha un **coraggio**/`noun` ammirevole		**Coraggio**/`!` intj

3.4 Feature `type`

"Presentational"/graphical criterium:

– it constitutes a test for the assignement of the values `common and proper`: proper nouns are capitalized. Note that not all the capitalized nouns are proper nouns: hence, the criterium is necessary but not sufficient.

Syntactic criterium:

– the presence/absence of the article is useful to choose between `common and proper`. Anthroponyms and nouns of cities are, in general, incompatible with articles, *Pisa, Giovanni, Laura, Roma.*
Exceptions: in some uses, feminine proper first and last names can be preceded by the article: *la Monica, i Rossi* (this last to indicate the members of the family). Furthermore, geographic nouns, e.g. river, mountain, country nouns, admit the presence of the article, *gli Appennini, il Tevere, l'America, i Balcani, le Alpi* and also the names of companies, even if abbreviated, *la FIAT, l'IBM, la Galileo.*
This criterium is, hence, not sufficient.

3.4.1 Value `com`

type = com	
D e s c r i p t i o n	**E x a m p l e s**
concrete and abstract nouns	**casa**/`com` , **pazienza**/`com`
measurements	**litro**/`com` , **metro**/`com` , **chilo**/`com`
currencies	**dollaro**/`com` , **lira**/`com`
titles or forms of address	**Direttore**/`com` , **Professore**/`com`
professions	un **ingegnere**/`com` , un **avvocato**/`com`
names of food and drinks	**caffe'**/`com` , **whisky**/`com`
names of animals and plants	**cane**/`com` , **edera**/`com`
inhabitants of countries, cities	gli **italiani**/`com` , i **romani**/`com`
names of months	**gennaio**/`com` , **febbraio**/`com`
cardinal numbers	un **nove**/`com` , un **tre**/`com`
names of weekdays	**martedi**/`com` , **sabato**/`com`
nominalized adjectives	il **bello**/`com` , i **ricchi**/`com`
nominalized participles	i **possidenti**/`com` , il **passato**/`com`
nominalized infinitives	il **dare**/`com` , l' **avere**/`com`

3.4.2 Value `prop`

Proper nouns consist of:

`type = prop`	
Description	**Examples**
anthroponyms (first, last)	**Monica**/`prop` , **Giovanni**/`prop`
toponyms	**Pisa**/`prop` , **Parigi**/`prop`
names of planets	**Marte**/`prop` , **Venere**/`prop`
names of companies	**Enimont**/`prop` , **Mitsubishi**/`prop`
names of orgnisations, parties	**BNL**/`prop` , **PSI**/`prop`
names of fictive/mythological figures	**Zeus**/`prop`
names of countries	**America**/`prop`
names of rivers, mountains	**Tevere**/`prop` , **Alpi**/`prop`

3.4.3 Distinction between `com` and `prop`

type=com		**type=prop**	
Description	**Example**	**Description**	**Example**
names of products	berro' una **coca-cola**/`com`	names of products	una **Coca-Cola**/`prop`
common nouns spelled as proper nouns	un **marco**/`com`	proper names	**Marco**/`prop`
currencies	un **marco**/`com`	currencies abbrev.	un **DM**/`prop`
geographical nouns	le **isole**/`com`	names of regions	**Isole**/`prop` **Vergini**/`prop`
common nouns	la **terra**/`com`	names of planets	la **Terra**/`prop`

3.5 Feature numb

In Italian, the values `singular, plural`, and `invariant`, i.e. the same morphological form for the singular and the plural are used.
This last value can be seen as a multilabel whose semantics is a "disjunction" operation: in fact, the value `n` is a macro for `sg | pl`.
It is used for the lexicon encoding of the series of the invariant nouns.
For these nouns, the number can be decided in the context only on the basis of syntactic considerations, i.e. by observing the agreement with other elements, articles, verbs, adjectives: *Parigi e' una citta' europea; le citta' europee hanno alcune caratteristiche in comune.* Sometimes the number can remain undecided, notwithstanding the context, i.e. when the noun agrees with invariant adjectives: *sarebbe opportuno offrire pari opportunita'* (sing. or plur.?).

3.5.1 Value sg

The value `singular` applies to common and proper nouns. The criterion is a morphosyntactic one and not a semantic one.

numb=sg	
Description	**Examples**
Common nouns	la **moneta**/sg
	lo **studente**/sg
	il **dollaro**/sg
Proper nouns	**Maria**/sg
	Mario/sg

3.5.2 Value pl

The value `plural` applies to common and proper nouns. The criterion is a morphosyntactic one and not a semantic one.

numb=pl	
Description	**Examples**
Common nouns	le **monete**/pl
	gli **studenti**/pl
	i **dollari**/pl
Proper nouns	gli **Appennini**/pl
	le due **Americhe**/pl

3.5.3 Value `n`

The value `invariant` applies to common nouns only.

numb=n	
Description	**Examples**
Common nouns	**attivita'**/`n`
	citta'/`n`
	caffe'/`n`

3.6 Feature `gend`

In Italian, the gender is marked by the ending: -a `fem`; -o `masc`.

Nouns exist which
– form the feminine by adding *-essa*: *conte/contessa* vs. *il/la giudice*;

– express the gender alternation with "eteronymia": they are nouns in which the semantic features [+masc] and [+fem] are lexicalized, *uomo/donna, padre/madre.*

– have the same form for masculine and feminine: "epiceni" nouns, *il/la tigre.*

The pertinent values are `masculine`, `feminine` and `common`, i.e. the same morphological form for masculine and feminine, typical of Romance languages.
The value `common` can be seen as a multilabel whose semantics is a "disjunction" operation: in fact, the value `c` is a macro for `m` | `f`.
It is used for the lexicon encoding of the series of common nouns which have the same form for masculine and feminine.

For these classes of nouns, the gender can be decided only in the context on the basis of syntactic considerations, i.e. by observing the gender of the agreed article and adjective: *un bravo insegnante, una ottima insegnante.* Sometimes the context cannot be sufficient to solve the underspecification and the gender remains undecided: *insegnanti capaci affollano quella scuola.*

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3.7.1 Value `f`

The value `feminine` applies to feminine forms of common and proper nouns.

gend=f	
Description	**Examples**
Common nouns	la **casa**/`f`
	le **case**/`f`
	la **contessa**/`f`
	le **contesse**/`f`
	l' **attivita'**/`f`
	le **attivita'**/`f`
Proper nouns	**Maria**/`f`
	le **Americhe**/`f`

3.7.2 Value m

The value masculine applies to masculine forms of common and proper nouns.

gend=m	
Description	**Examples**
Common nouns	il **colore**/m
	il **colori**/m
	il **re**/m
	i **re**/m
Proper nouns	**Mario**/m
	gli **Appennini**/m

3.7.3 Value c

The value common applies to common forms of common nouns.

gend=c	
Description	**Examples**
Common nouns	**insegnante**/c
	insegnanti/c
	giudice/c
	giudici/c

3.7.4 Nouns with double plural

In Italian, masculine nouns exists whose inflectional paradigm presents two plurals: the regular plural in -i alternates with a sort of exception to the paradigm, i.e. a feminine plural ending in -a. Please note that that this ending is, really, the ancient fossilized suffix of the latin neuter plural gender.
The sensible difference of the meaning of the two plurals cannot be conducted to a general rule, even if often the oppositions abstract vs. concrete, general vs. particular, collective vs. single can be individuated. However, the cases has to be examined one by one.

For the class of the nouns denoting parts of the body, it can be said that the two plural forms disambiguate the polisemy contained in the singular form: e.g.

braccio: i) parte del corpo; ii) ramo, diramazione
bracci: ii) rami, diramazione
braccia: i) parte del corpo

numb=pl, gend=f/m	
Description	**Examples**
nouns with two plurals	**braccio**/m, sg
	bracci/m, pl **braccia**/f, pl
	membro/m, sg
	membri/m, pl **membra**/f, pl
	filo/m, sg
	fili/m, pl **fila**/f, pl

4 Verb

4.1 Table in the Morphosyntax document

V	Type	Fin	Vf-M	Tns	P	N	G	Asp	Vce	Refl	MVf	AuF	Aux	Sep	Clt	Zuincl
L0	VERB															
E A G L 1	**mai** **aux** mod	**fin** **no-fin**	**ind** **sub** **impr** **cond** **inf** **part** **ger** sup	**pres** **impf** **fut** **past**	**1** **2** **3**	**sg** **pl**	**m1** **f1**									
L 2 a	s-aux cop							pfve ifve	act pas	rfl norf	trs int imp	prg prf pss pph				
L 2 b			En ing En bas				It **cD1**						hv be	Du sep Du nos	clt nocl	Ge norminf Ge infzu

4.2 Type hierarchy table

V E R B 1								
Feature	**Values**							
pos	verb							
type	mai							
fin	fin				no-fin			
mood	ind	subj	cond	imp	inf	ger	part	
tense	pres impf fut past	pres impf	pres	pres	pres	pres	pres	past
pers	1 2 3	1 2 3	1 2 3	2	–	–	–	–
numb	sg pl	sg pl	sg pl	sg pl	–	–	sg pl	sg pl
gend	–	–	–	–	–	–	c	m f
Ex:	amo amavo amero' amai	ami amassi	amerei	ama	amare	amando	amante	amato

V E R B 2								
Feature	**Values**							
pos	verb							
type	aux							
fin	fin				no-fin			
mood	ind	subj	cond	imp	inf	ger	part	
tense	pres impf fut past	pres impf	pres	pres	pres	pres	pres	past
pers	1 2 3	1 2 3	1 2 3	2	–	–	–	–
numb	sg pl	sg pl	sg pl	sg pl	–	–	sg pl	sg pl
gend	–	–	–	–	–	–	c	m f
Ex:	ho avevo avro' ebbi	abbia avessi	avrei	abbi	avere	avendo	avente	avuto

4.3 pos-value `verb`

4.3.1 Central semantics of value `verb`

A verb can be identified through morphological, syntactical and semantic parameters.

Morphological parameters

– a verb is a unit which has the features of `mood` and `tense` combined with the morphological features `person, number` and, for the participle, `gender`.

Semantic parameters are not easily delimited, due to the heterogeneous nature:

– the verb expresses a process and an action made by the subject (but also suffered).

The above definitions can be drawn on the basis of the classic grammar. In the framework of the formal grammar the verb is defined on the basis of its valency, i.e. the capability of governing a given number of arguments having specific syntactic and semantic roles.

Syntactic parameters:

– the verb is the head of a syntactic constituent, i.e. a verbal phrase.

Semantic parameters:

– the verb governs arguments having syntactic and semantic roles: `subject -- agent; object -- patient`, etc.
– verbs can be subdivided into `main` (all the lexical verbs) and `auxiliar` (*essere, avere* and sometimes, in Italian, also *venire*). See 3.4 for further details.

4.3.2 Transcategorization phenomena with other pos-values

Transcategorization phenomena or confusions can be made between the `pos` values `noun` and `verb`, `adjective` and `verb & pres.part`, `adjective` and `verb & pass.part`, `interjection` and `verb`.

pos=noun		**pos=verb**	
Description	**Example**	**Description**	**Example**
nominalized infinitives	i conti del **dare**/`noun` e dell' **avere**/`noun`	infinitives in verbal context	Non posso **dare**/`verb`
nominalized past participles	la **ritenuta**/`noun` d'acconto	past participles used in a verbal context	Maria e' stata **ritenuta**/`verb` idonea
	il **passato**/`noun`		oggi ormai **passato**/`verb`
	e' un **detenuto**/`noun` modello		il record **detenuto**/`verb` da Tomba
nominalized present participle	i giovani **amanti**/`noun`	present participle used in a verbal context	**amanti**/`verb` della vita
	e' un **militante**/`noun` del partito		Mario, **militante**/`verb` nelle fila ...

pos=adj		**pos=verb, vf-m=part, tns=pres**	
Description	**Example**	**Description**	**Example**
present participles lexicalized as adj	un uomo molto **presente**/`adj` a se stesso	present participles	l'uomo, **presente**/`vpp` in sala,
	e' un comunista **militante**/`adj`		l'uomo, da anni **militante**/`vpp` nelle fila ...

pos=adj		**pos=verb, vf-m=part, tns=past**	
Description	**Example**	**Description**	**Example**
past participles lexicalized as adj	ormai e' acqua **passata**/`adj`	past participle	**passata**/`vpr` una settimana,
	un uomo molto **deciso**/`adj`		egli, **deciso**/`vpr` a partire,

4.4 Feature `Type`

This feature is used to distinguish content verbs from *potential* auxiliaries.

4.4.1 Value `mai`

The value `mai` (main) applies to all the lexical verbs.

`type=mai`	
Description	**Examples**
lexical verbs	Marco **ama**/`mai` sciare
	Marco **partirebbe**/`mai` domani, se ...
	Marco e' stato **informato**/`mai` dell'accaduto
	Marco, essendo **andato**/`mai` all'estero, ...

4.4.2 Value `aux`

The value `auxiliary` is used to encode the verbs *avere* and *essere*.

In Italian, at the lexicon level, the two `potential` auxiliaries *essere* and *avere* are marked as `aux`, i.e. without distinguishing the cases in which they are used as main verbs: *Marco ha*=`mai` *un bel cane* vs. *Marco ha*=`aux` *amato molto Maria.* The disambiguation of the two auxiliaries, when used as main verbs (and of the verb *essere* also its use as copula (*ho*=`mai` *(possiedo) un cane; sono*=`mai` *(sto) nel prato; sono*=`cop` *molto stanco*), can be specified, if necessary, at the level of tagging by manual or semi-automatic means.

`type=aux`	
Description	**Examples**
potential auxiliaries	Marco **ha**/`aux` amato molto Maria
	Marco, **essendo**/`aux` stato informato, ...
main verbs	Marco **ha**/`aux` un bel cane
	Marco **e'**/`aux` in cucina
copula	Marco **e'**/`aux` buono

4.5 Feature `Fin`

4.5.1 Value `fin`

In Italian, the values of the feature `Finiteness`, i.e. `finite` and `non-finite` are implicitly encoded by means of the values of the feature `VF/M` (Verb-Form/Mood):

– `indicative, subjunctive, imperative, conditional` are `finite` forms.

`fin=fin`	
D e s c r i p t i o n	**E x a m p l e s**
finite verbs	Marco **giocava**/`ind` a pallone
	Marco, se **giocasse**/`ind` a pallone, ...
	Marco, **bevi**/`imp` la tua medicina
	Marco **verrebbe**/`cond` a cena, se ci fossi anche tu

4.5.2 Value `no-fin`

`Infinitive, participle, gerund` are implicitly `non-finite` forms.

`fin=no-fin`	
D e s c r i p t i o n	**E x a m p l e s**
finite verbs	Marco sa **giocare**/`inf` bene a pallone
	Marco, **giocando**/`ger` a pallone, si tiene in forma
	Marco, avendo **amato**/`part` il gioco del pallone, ...

The encoding of this feature in the lexicon, hence, can be seen as redundant.

4.6 Feature `Vf-M`

The feature `Verb-Form/Mood` applies to all verbs and indicates the type of communication established between speaker and listener or the mood of the speaker wrt his communication. Moods are the following.

4.6.1 Value `ind`

The value `indicative` is used to encode a verb expressing a real fact.

`vf-m=ind`	
Description	**Examples**
indicative	Marco **ama**/`ind` Maria
	Marco **aveva**/`ind` amato Maria
	Marco **sara'**/`ind` premiato oggi

4.6.2 Value `sub`

The value `subjunctive` is used to encode a verb which expresses something wanted, feared, etc...

`vf-m=sub`	
Description	**Examples**
subjunctive	Sebbene Marco **giocasse**/`sub` bene, ...
	Nonostante **sia** /`sub` troppo tardi, ...
	Che io **avessi**/`sub` ragione, era chiaro.

4.6.3 Value `cond`

The value `conditional` is used to encode a verb which expresses a sort of condition independently from the subject.

`vf-m=cond`	
Description	**Examples**
conditional	**giocherebbe**/`cond` sempre, se potesse
	sarebbe/`cond` conveniente uscire
	avrebbe/`cond` dato tutto

4.6.4 Value `impr`

The value `imperative` is used to encode a verb which expresses an order, an hesortation to the listener.

vf-m=impr	
Description	**Examples**
imperative	**mangia**/`impr` tutta la tua minestra!
	siate/`impr` piu' onesti!
	abbi/`impr` compasssione!

4.6.5 Value `inf`

The value `infinitive` encodes the infinitive form of the verb.

vf-m=inf	
Description	**Examples**
infinitive	**leggere**/`inf` e' molto riposante
	vuole **avere**/`inf` sempre ragione
	sa **essere**/`inf` sempre al meglio

4.6.6 Value `part`

The value `participle` encodes the participial forms of the verb: *amante, amato*. They are often used as nouns or adjectives (see 3.3.2).

vf-m=part	
Description	**Examples**
participle	**lasciata**/`part` l'Italia da molto tempo
	Marco, **militante**/`part` nel partito, ...
	avuta/`part` in dono la casa, ...
	essendo **stato**/`part` un partigiano, ...

4.6.7 Value `ger`

The value `gerund` encodes the gerund of the verb.

`vf-m=ger`	
Description	**Examples**
gerund	**amando**/`ger` l'Italia da molto tempo
	Marco, **militando**/`ger` nel partito, ...
	avendo/`ger` in dono la casa, ...
	essendo/`part` un partigiano, ...

4.7 Feature `Tns`

The feature `Tense` qualifies tha action wrt the chronological point of view. At the morphosyntactic level only *simple* tenses are encoded.

The values `present, imperfect, future, past` are pertinent to Italian. They applies to the different values of the feature `VerbForm-Mood` with the following restrictions:

– `indicative`: `present, imperfect, future, past` are relevant. Note that, the value `past` encodes the simple form of the past, the Italian so-called “passato remoto”.

– `subjunctive`: `present, imperfect` are relevant.

– `conditional`: `present` is relevant.

– `imperative`: `present` is relevant.

– `infinite`: `present` is relevant.

– `gerund`: `present` is relevant.

– `participle`: `present, past` are relevant.

4.7.1 Value `pres`

The value `present` applies to the values ind, sub, impr, cond, inf and part.

tns=pres	
D e s c r i p t i o n	**E x a m p l e s**
vf-m=ind	essi **amano**/`pres` studiare
vf-m=sub	che egli **ami**/`pres` studiare, e' indubbio
vf-m=impr	**ama**/`pres` il prossimo tuo!
vf-m=cond	egli **amerebbe**/`pres` andare via
vf-m=inf	e' facile **amare**/`pres` uno come te
vf-m=part	ormai **amanti**/`pres` le cose piacevoli
vf-m=ger	**amando**/`pres` i piaceri della vita

It should be noted here that, depending on particular classes of lexical verbs, some forms of the paradigm of `indicative, subjunctive` and `imperative` are perfectly omograph: i.e.

ami can be either `indicative` or `subjunctive`;
ama can be either `indicative` or `imperative`.

This fact is crucial at the level of tagging, where the disambiguation is difficult by automatic means and different strategies can be chosen (Monachini and Calzolari 1995 and Bel, Calzolari and Monachini 1995): (i) all the possible interpretations can be maintained in the tag, (ii) an 'underspecified' tag can be used, i.e. a tag collapsing the information of mood (and, in some cases, of person too), (iii) the verb-form can be manually disambiguated (see e.g. the experience within ELSNET, Corazzari and Monachini 1995).

4.7.2 Value `impf`

The value impf applies to the values ind and sub.

`tns=impf`	
Description	**Examples**
vf-m=ind	essi **amavano**/`impf` studiare
vf-m=sub	che egli **amasse**/`impf` studiare, e' indubbio

4.7.3 Value `fut`

The value fut applies to the value ind.

`tns=fut`	
Description	**Examples**
vf-m=ind	Marco **amera'**/`fut` sempre Maria

4.7.4 Value `past`

The value past applies to the values ind and part. Note that, at the indicative, it encodes the so-called 'passato remoto' (simple past).

`tns=past`	
Description	**Examples**
ind	Marco **amo'**/`past` Maria per tutta la vita
part	Marco ha **amato**/`past` Maria intensamente

4.8 Feature `P`

The feature `Person` applies only to `finite` forms. It doesn't apply to forms which have the values inf, ger and part.

The values `first, second, third` apply to all `tenses`, except the `imperative` to which the `second` only applies.

Note that some impersonal verbs (i.e. those referring to 'weather' situations, *piove, nevica*) does not inflect for all persons in their paradigm, but only have the third singular person.

4.8.1 Value `1`

The value 1 applies to forms with the values ind, sub, and cond, in combination with the values of the feature Number, sing and plur. The value 1 doesn't apply to certain defective verbs, for example the impersonal verbs such as *piove*.

p=1	
Description	**Examples**
ind	io **amo** /1 la vita
	io **amavo** /1 la vita
	io **amero'** /1 la vita
	io **amai**/1 la vita
sub	che io lo **ami** /1 , e' indubbio
	che io lo **amassi** /1 , e' indubbio
cond	io **amerei**/1 leggere

4.8.2 Value `2`

The value 2 applies to forms with the values ind, sub, impr and cond, in combination with the values of the feature Number sing and plur. The value 2 doesn't apply to certain defective verbs, for example the impersonal verbs such as *piove*.

p=2	
Description	**Examples**
ind	tu **ami** /2 Maria
	tu **amavi** /2 Maria
	tu **amerai** /2 Maria
	tu **amasti**/2 Maria
sub	che tu la **ami** /2 , e' indubbio
	che tu la **amassi** /2 , e' indubbio
impr	**ama** /2 la vita!
cond	tu **ameresti**/2 leggere

4.8.3 Value 3

The p-value 3 applies to forms with the vf-m-values ind, sub and cond, in combination with the values of the feature Number, sing and plur.

p=3	
Description	**Examples**
ind	egli **ama** /3 Maria
	egli **amava** /3 Maria
	egli **amera'** /3 Maria
	egli **amo'**/3 Maria
sub	che egli la **ami**/3 , e' indubbio
	che egli la **amasse**/3 , e' indubbio
cond	egli **amerebbe**/3 leggere

4.9 Feature `N`

The feature `Number` is pertinent to all the `finite` forms and, among the `non-finite` forms, to the `participles`. This feature is in combination with the values 1, 2 et 3 of the feature Person.

This feature doesn't apply to infinitive and gerund. The feature number applies in combination with the feature gender to past participles. For imperative (impr), the value 2 of person combines with the two values, sing and plur.
For some defective verbs not the all values are realized.

4.9.1 Value `sg`

The value `singular` applies to values ind, sub, impr, cond, and to those past participle forms that inflect according to the number and the gender.

n=sg	
D e s c r i p t i o n	**E x a m p l e s**
ind	Marco **ama** /sg Maria
	Marco **amava** /sg Maria
	Marco **amera'** /sg Maria
	Marco **amo'** /sg Maria
sub	che Marco la **ami**/sg , e' indubbio
	che Marco la **amasse**/sg , e' indubbio
impr	**ama**/sg la vita!
cond	Marco **amerebbe** /sg la lettura
part & tns=past	Marco e' **amato**/sg da Maria
	Maria e' **amata**/sg da Marco
part & tns=pres	Marco, **militante**/sg nel partito, ...

4.9.2 Value `pl`

The `plural` applies to forms which have the values ind, sub, impr, cond, and to those present and past participle that vary according to the number and the gender.

n=pl	
Description	**Examples**
ind	essi **amano** /`pl` leggere
	essi **amavano** /`pl` leggere
	essi **ameranno** /`pl` leggere
	essi **amarono** /`pl` leggere
sub	che essi **amino**/`pl` leggere, e' indubbio
	che essi **amassero**/`pl` leggere, e' indubbio
impr	**amate**/`pl` la vita!
cond	essi **amerebbero** /`pl` la lettura, se ...
part & tns=past	essi **amati**/`pl` da tutti, ...
	esse **amate**/`pl` da tutte, ...
part & tns=pres	essi, **militanti**/`pl` nel partito, ...

4.10 Feature `G`

The feature `Gender` is pertinent to the `participle` forms.

The values `masculine` and `feminine` apply to `past participle`.
The past participle has the morpological behaviour of a two-ending adjective.

The value `common` applies to `present participle`.
The present participle has the morphological behaviour of an one-ending adjective.

4.10.1 Value `m`

g=m	
Description	**Examples**
part & tns=past	l'attore e' stato molto **amato**/`m`
	essi sono stati molto **amati**/`m`
	essi sono **andati**/`m` via
	tu sei **andato**/`m` via

4.10.2 Value `f`

g=f	
Description	**Examples**
part & tns=past	la donna e' molto **stimata**/`f`
	esse sono **stimate**/`f` da tutti
	le donne sono **uscite**/`f` dalla stanza
	tu sei **andata**/`f` via

4.10.3 Value `c`

The value `common` applies to present participle forms.

g=c	
Description	**Examples**
part & tns=pres	l'insegnante, **militante**/`c` tra i COBAS,
	insegnanti, **militanti**/`c` tra i COBAS, hanno aderito

5 Adjective

5.1 Table in the Morphosyntax document

A	**Type**	**Degr**	**Gend**	**Numb**	Case	Use	Mod	Infl	Defin	Pos	Prs	Flect
L0	**ADJECTIVE**											
L 1	**qual** poss indf card ord	**pos** **comp** **sup**	$\mathbf{m}_1$ $\mathbf{f}_1$ n	$\mathbf{sg}_1$ $\mathbf{pl}_1$						sg pl	1 2 3	
L 2 a		ext-c ext-s			nom gen dat acc	attr pred	prem postm					
L 2 b	Ge vpart Ge fract		It $\mathbf{c}_{D1}$ Sp c	It $\mathbf{n}_{D1}$ Sp c	Gr voc Gr ind			Ge weak Ge strg Ge mxd	Da def Da indf Da unm			Ge flc Ge nof

5.2 Type hierarchy table

A D J E C T I V E			
Feature	**Values**		
pos	adjective		
type	qual		
degr	pos	comp	sup
numb gend	sg, pl, n m, f, c	sg, pl c	sg, pl m, f
Example:	buono/i, pari buono/a, capace	migliore/i milgiore	buonissimo/i capacissimo/a

5.3 pos-value `adjective`

5.3.1 Central semantics of value `adjective`

It is a Pos that combines with other PoS giving rise to Adjective Phrases. The adjective co-occurs, in general with the noun, specifying its qualities.

The isolation and recognizing criteria are of **formal** and **semantic** type.

Morphological and syntactic parameters:

– the adjective carries the number and gender marks; it undegoes the **agreement** mechanism (with the noun) which is a relation of syntactic type, *il mio caro amico, le mie care amiche.*
– the adjective combines with elements which is in relation of dependency with (but the process of nominalization).

In Italian, the marked or not-marked position of the adjective in the context has implication on the semantics:

post-nominal position (not marked):
un uomo grande, un uomo buono;

pre-nominal position (marked):
un grand' uomo, un buon uomo.

In these positions, the adjective, linked with a noun containing the feature [+human], acquires a special metaphoric sense.
Note that at morphological level, in the marked position the adjective selects the "truncated" form.

Morphologically, adjectives are subdivided into three different classes:
– `two endings` (one for masculine nouns, the other for feminine nouns): *bambino buono, bambina buona; bambini buoni, bambine buone*
– `one ending` (the same ending for masculine and feminine nouns): *caramella/biscotto dolce; caramelle/biscotti dolci*
– `invariant` (the same ending for masculine and feminine nouns and for the singular and plural forms): *lotta/e impari, totale/i pari*

Semantic parameters:

– the adjectives specify subclasses: the class of qualificative (which are considered the "protypical" nucleus of the class and constitute the productive sector, see the relational below), and the determinative (which, in this document, are inserted and dealt with in the Determiner section).

pos=adj	
D e s c r i p t i o n	**E x a m p l e s**
colours	**rosa**/`adj` , **rosso**/`adj`
physic dimension	**grande**/`adj` , **piccolo**/`adj`
abstract values	**buono**/`adj` , **valido**/`adj`
etnical adjectives	**italiano**/`adj` , **europeo**/`adj`
relational	**pauroso**/`adj`
adjective in post-nominal position	un uomo **bello**/`adj` , **buono**/`adj`
adjective in pre-nominal position	un **bell'**/`adj` uomo, un **buon**/`adj` uomo
present participles	un uomo molto **amante**/`adj` della vita
past participles	usanze **passate**/`adj`

5.3.2 Transcategorization phenomena with other pos-values

Transcategorization phenomena or confusions can be made between the `pos` values `adjective` and `noun`, `adjective` and `adverb`, `adjective` and `past participle`, `adjective` and `present participle`, `adjective` and `determiner`, `adjective` and `interjection`.

pos=noun		**pos=adj**	
Description	**Example**	**Description**	**Example**
lexicalized nominalized adjectives nominal head of NP	il **bello**/`noun` della vita	adjectival forms used in an attributive way	un uomo **bello**/`adj`
	un **antibiotico**/`noun` potente		un medicinale **antibiotico**/`adj`
Inhabitants of places	Gli **italiani**/`noun`	Inhabitants in attributive adjectival distribution	Gli uomini **italiani**/`adj`
nominalized present participles	i **credenti**/`noun`	present participles used in an adjectival context	cattolici molto **credenti**/`adj`
	ho preso un **calmante**/`noun`		una tisana **calmante**/`adj`
	i **militanti**/`noun` del partito		sono comunisti **militanti**/`adj`
nominalized past participles	il **passato**/`noun`	adjectivally used past participles	l'anno **passato**/`adj`
colours	il **rosa**/`noun` e' un colore pastello	colour as qualification	una camicetta **rosa**/`adj`
noun	il giocatore e' un **esterno**/`noun` destro	comparative adjective	misura il perimetro **esterno**/`adj` della casa
noun (comparative adj.)	i **migliori**/`noun` sono quelli che se ne vanno	comparative adjective	gli anni **migliori**/`adj` della nostra vita
noun (superlative adj.)	rappresenta l' **ottimo**/`noun` delle condizioni	superlative adjective	e' un **ottimo**/`adj` tecnico

pos=adj		pos=verb, vf-m=part, tns=pres	
Description	**Example**	**Description**	**Example**
present participles lexicalized as adj	un uomo molto **presente**/`adj` a se stesso	present participles	l'uomo, **presente**/`vpp` in sala,
	e' un comunista **militante**/`adj`		l'uomo, da anni **militante**/`vpp` nelle fila ...

pos=adj		pos=verb, vf-m=part, tns=past	
Description	**Example**	**Description**	**Example**
past participles lexicalized as adj	ormai e' acqua **passata**/`adj`	past participle	**passata**/`vpr` una settimana,
	un uomo molto **deciso**/`adj`		egli, **deciso**/`vpr` a partire,

pos=adj		pos=adv	
Description	**Example**	**Description**	**Example**
adjective	una macchina **veloce**/`adj`	adverb	la macchina correva **veloce**/`adv`
	un uomo **solo**/`adj`		**solo**/`adv` un uomo lo sa
	una donna **forte**/`adj`		quella donna parla **forte**/`adv`

pos=adj		pos=det	
Description	**Example**	**Description**	**Example**
adjective	una donna **qualunque**/`adj`	determiner	**qualunque**/`det` donna tu voglia

pos=adj		pos=conj	
Description	**Example**	**Description**	**Example**
adjective	un uomo **solo**/`adj`	conjunction	ho telefonato, **solo**/`conj` non ti ho trovato

pos=adj		**pos=intj**	
Description	**Example**	**Description**	**Example**
adjective	un **bravo**/`adj` ragazzo	interjection	**Bravo**/`!` intj

5.4 Feature `type`

Only qualificative adjectives are dealt with in this section. Determinative adjectives (or Pronominal adjectives) are in fact included in the determiner section.
Therefore, the qualificative value is taken by default.

5.4.1 Value `qual`

type=qual	
Description	**Examples**
colours	**rosa**/adj , **rosso**/adj
physic dimension	**grande**/adj , **piccolo**/adj
abstract values	**buono**/adj , **valido**/adj
etnical adjectives	**italiano**/adj , **europeo**/adj
relational	**pauroso**/adj

5.5 Feature `degree`

This feature is used for the encoding of the degree of the adjectives.

The synthetic (or organic) forms of superlative and comparative adjective are obviously taken into account here.

Morphological criteria:

– the `comparative` degree is marked by the suffix `-iore`.
– the `superlative` degree is marked by the suffixes `-issimo, -errimo, -entissimo`.

5.5.1 Value `pos`

The value `positive` applies to qualificative adjective and represents the default value.

`degree=pos`	
Description	**Examples**
Qualificative adjective	bambino **cattivo**/`pos` , una **cattiva**/`pos` bambina
	bambini **buoni**/`pos` , bambine **buone**/`pos`

5.5.2 Value `comp`

The value `comparative` applies to a closed list of qualificative adjectives which form the comparative in a synthetic way:

buono–migliore–ottimo
cattivo–peggiore–pessimo
grande–maggiore–massimo
piccolo–minore–minimo

The comparative is constructed, for the most, in analitical way, using the adverbs *piu', meno, tanto, quanto* and the positive form of the adjective: *mio figlio e' piu' grande (= maggiore) del tuo.*

`degree=comp`	
Description	**Examples**
Qualificative adjective	un bambino **peggiore**/`comp` , una bambina **migliore**/`comp`
	danni **maggiori**/`comp` , votazioni **minori**/`comp`

5.5.3 Value `sup`

The value `superlative` applies to qualificative adjective.

degree=sup	
Description	**Examples**
Qualificative adjective	un bambino **pessimo**/`sup` , una **cattivissima**/`sup` bambina
	bambini **cattivissimi**/`sup` , **ottime**/`sup` votazioni
	danni **minimi**/`sup` , **massime**/`sup` aspirazioni

5.6 Feature `numb`

Adjectives agree in number to the nouns which they specify. In Italian, the values `singular`, `plural`, and `invariant`, i.e. the same morphological form for the singular and the plural are pertinent to adjectives.

This last value can be seen as a multilabel whose semantics is a "disjunction" operation: in fact, the value `n` is a macro for `sg` | `pl`.
It is used for the lexicon encoding of the series of the so-called invariant adjectives.
For these adjectives, the number can be decided in the context only on the basis of syntactic considerations, i.e. by observing the number of the agreed noun: *e' tornata una somma pari.*
Sometimes the number can remain undecided, notwithstanding the context, i.e. when the adjective agrees with `common` nouns: in *pari opportunita', che non sempre a tutti vengono offerte* the number could be decided only by a parsing of the sentence.

5.6.1 Value `sg`

The value `singular` applies to positive, superlative and comparative adjectives (two and one ending adjectives).

numb=sg	
D e s c r i p t i o n	**E x a m p l e s**
Positive adjective	bambino **buono**/sg , un **bel**/sg bambino
	una bambina **buona**/sg , una **bella**/sg bambina
	un uomo **forte**/sg , una donna **forte**/sg
Comparative adjective	il fratello **maggiore**/sg , la sorella **minore**/sg
Superlative adjective	il voto **massimo**/sg , la **massima**/sg aspirazione

5.6.2 Value `pl`

The value `plural` applies to positive, superlative and comparative adjectives (two and one ending adjectives).

numb=pl	
D e s c r i p t i o n	**E x a m p l e s**
Positive adjective	bambini **buoni**/pl , **bei**/pl bambini
	bambine **buone**/pl , **belle**/pl bambine
	uomini **forti**/pl , donne **forti**/pl
Comparative adjective	fratelli **maggiori**/pl , sorelle **maggiori**/pl
Superlative adjective	voti **ottimi**/pl , le **massime**/pl aspirazioni

5.6.3 Value `n`

The value `invariant` applies to positive adjectives (invariant adjectives).

numb=n	
Description	**Examples**
Positive adjective	**pari**/n , **impari**/n , **rosa**/n

5.7 Feature gend

Adjectives agree in gender to the nouns they specify. The values `feminine, masculine` and `common`, i.e. the same morphological form for the feminine and the masculine, are pertinent to adjectives.

The value `common` can be seen as a multilabel whose semantics is a "disjunction" operation: in fact, the value `c` is a macro for `m` | `f`.
It is used for the lexicon encoding of the series of the one-ending and invariant adjectives.

For these classes of adjectives, the gender can be decided only in the context on the basis of syntactic considerations, i.e. by observing the gender of the agreed noun: *un professore imparziale, una camicetta rosa.* Sometimes the context is not sufficient to solve the under-specification and the gender remains undecided: *insegnanti capaci affollano quella scuola.*

5.7.1 Value m

The value `masculine` applies to positive and superlative adjectives (two ending adjectives).

gend=m	
Description	**Examples**
Positive adjective	bambino **buono**/m , **bel**/m bambino
	bambini **buoni**/m , **bei**/m bambini
Superlative adjective	il **massimo**/m voto, **buonissimo**/m voto

5.7.2 Value f

The value `feminine` applies to positive and superlative adjectives (two ending adjectives).

gend=f	
Description	**Examples**
Positive adjective	bambina **buona**/f , una **bella**/f bambina
	bambine **buone**/f , **belle**/f bambine
Superlative adjective	la **massima**/f aspirazione, **grandissime**/f aspirazioni

5.7.3 Value `c`

The value `common` applies to positive and comparative adjectives (one ending and invariant adjectives).

gend=c	
Description	**Examples**
Positive adjective	**pari**/c , **impari**/c
	rosa/c , **dolce**/c
Comparative adjective	**maggiore**/c , **minore**/c

6 Pronoun

6.1 Table in the Morphosyntax document

P	**Type**	wh-T	**Pers**	**Gend**	**Numb**	**Case**	Pos	Pol	Funct	**Infl**
E-L0	**PRONOUN**									
E	**dem**		**1**	**m**$_1$	**sg**$_1$	**nom**	sg			
A	**indf**		**2**	**f**$_1$	**pl**$_1$	gen	pl			
G	**poss**		**3**	n		**dat**$_1$				
	int					**acc**$_1$				
	rel					**obl**$_{R1}$				
L	**pers**					obj				
1	refl									
	recp									
	excl									
L	int/rel							pol		
2	pres/ref							fam		
a	dem/indf									
L				It **c**$_{D1}$	It **n**$_{D1}$	Po/It **pobj**$_1$			Du att	Fr/It **weak**
2									Du prd	Fr/It **strg**
b									Du adv	Ge infl
									Du adv	Ge no-infl

6.2 Type hierarchy table

P R O N O U N 1										
Feature	**Values**									
pos	pronoun									
type	pers									
infl	weak				strg					
case	obl				nom		obl			
pers gend numb	1, 2 c sg, pl	3 m, f, c sg, pl, n	1, 2 c sg, pl	3 m, f, c sg, n	1, 2 c sg, pl	3 m, f, c sg, pl	1, 2 c sg, pl	3 m, f, c sg, pl, n	1, 2 c sg, pl	3 m, f, c sg, pl, n
Ex:	mi ti ci vi	lo la le li si	mi ti ci vi (me te ce ve)	gli le si (se) loro	io tu noi voi	egli ella esso/a/e/i loro	me te noi voi	lui lei loro se'	me te noi voi	lui lei loro se'

P R O N O U N 2						
Feature	**Values**					
pos	pronoun					
type	poss	dem	indf	int	rel	excl
infl	–					
case	–					
oblT	–					
pers	1, 2 3	–	–	–	–	–
numb	sg, pl, n	sg, pl	sg, pl	sg, pl, n	sg, pl, n	sg, pl, n
gend	m, f, c	m, f, c	m, f,c	m, f, c	m, f, c	m, f, c
Ex:	mio/a nostro/i loro	quello/a quelli/e cio'	ognuno/a chiunque tali	che? quali? quante?	cui chi	che! quanto! quali!

6.3 pos-value `pronoun`

6.3.1 Central semantics of value `pronoun`

Pronouns constitute a so-called "closed" class, i.e. given a language, the members of this class can be always enumerated. Pronouns share this feature in common with the invariable PoS's, conjunctions and prepositions, while, on the other hand, they are similar to the variable PoS's, nouns and adjectives (see below). The pronoun can, in fact, substitute the noun, carrying its syntactic and semantic properties.
However, the substitution role is not a sufficient criterion to circumscribe the pronoun category: in fact, the deictics do not substitute the noun but indicate an extralinguistic fact.

Properties shared by the members of this category can be grouped under the following criteria.

Morphological criterion:

– pronouns share with the `noun` and `adjective` the agreement in **gender**, *egli, ella*, and **number**, *questo, questi*. In Italian, personal pronouns keep the ancient **case** system, *egli, lui, gli*.

Syntactic peculiarities can be isolated that can help in distinguishing pronouns from pronominal adjectives (see below, under possessive type).

Semantic criterion:

– on the basis of semantic considerations, subclasses can be identified in the pronominal series: personal, possessive, demonstrative, indefinite, relative, interrogative, exclamative pronouns. Each series – but the personal – presents a corresponding adjectival series, the so-called "Pronominal Adjectives" (here dealt with in the Determiner section).

pos=pron	
Description	**Examples**
personal	**io**/pers **tu**/pers **egli**/pers **lui**/pers **esso**/pers
	ella/pers **lei**/pers **essa**/pers **noi**/pers
	voi/pers **essi**/pers **esse**/pers **loro**/pers **se**/pers
	mi/pers **ti**/pers **gli**/pers **lo**/pers **le**/pers
	la/pers **ci**/pers **vi**/pers **loro**/pers
	le/pers **li**/pers **si**/pers
possessive	**mio**/poss **tuo**/poss **suo**/poss **nostro**/poss
	vostro/poss **loro**/poss **proprio**/poss
demonstrative	**questo**/dem **codesto**/dem **quello**/dem **quel**/dem
	questi/dem **quegli**/dem **costui**/dem
	colei/dem **cio'**/dem
indefinite	**qualche**/indf **qualcuno**/indf **uno**/indf **qualcosa**/indf
	qualcheduno/indf **alcuno**/indf **alcunche'**/indf
	certo/indf **tale**/indf **taluno**/indf **quale**/indf
	altro/indf **altrui**/indf
	qualunque/indf **qualsiasi**/indf **chiunque**/indf **tutto**/indf
	chicchessia/indf **ciascuno**/indf **ogni**/indf **ognuno**/indf
	nessuno/indf **niente**/indf **nulla**/indf
	poco/indf **alquanto**/indf **parecchio**/indf
	molto/indf **troppo**/indf **tanto**/indf **altrettanto**/indf
interrogative	**che**/int **chi**/int **cosa**/int
	quale/int **quanto**/int
relative	**che**/rel **cui**/rel **il quale**/rel
	chi/rel **la quale**/rel
exclamative	**che**/excl **chi**/excl **cosa**/excl
	quale/excl **quanto**/excl

6.3.2 Transcategorization phenomena with other pos-values

Transcategorization phenomena or confusions can be made between the `pos` values `pronoun` and `noun`, `pronoun` and `determiner`, `pronoun` and `article`, `pronoun` and `numeral`, `pronoun` and `adverb`.

pos=noun		pos=pron	
Description	**Example**	**Description**	**Example**
pronoun inserted in a NP	ho fatto di **tutto**/noun	pronoun	ecco il dolce, ma non mangiarlo **tutto**/pron
noun	ci manca un **niente**/noun	pronoun	non gli hai detto **niente**/pron
	ho fatto una **cosa**/noun		dimmi **cosa**/pron ti occorre
	la teoria dei **quanti**/noun		**quanti**/pron ne vuoi?

pos=pron		pos=det	
Description	**Example**	**Description**	**Example**
pronoun	prestami la **tua**/pron	determiner	mi presti la **tua**/det macchina
	mi piace **quella**/pron		guarda **quella**/det macchina
	alcuni/pron verranno domani		**alcuni**/det studenti ci lasceranno
	quali/pron vuoi?		**quali**/det citta' visiteremo?

pos=pron		pos=adv	
Description	**Example**	**Description**	**Example**
pronoun	**quanto**/pron ne vuoi?	adverb	strillava **quanto**/adv poteva
	niente/pron mi fara' cambiare		non vale **niente**/adv
	pochi/pron sanno la verita'		ho mangiato **poco**/adv

pos=pron		**pos=art**	
Description	**Example**	**Description**	**Example**
pronoun	e' **una**/`pron` che non si dimentica	article	**una**/`art` giornata particolare
	la/`pron` ama profondamente		e' **la**/`art` donna della sua vita

pos=pron		**pos=num**	
Description	**Example**	**Description**	**Example**
pronoun	venne **uno**/`pron` della polizia	numeral	leggete il capitolo **uno**/`num`

6.4 Feature `type`

This feature encodes the subclasses identified in the pronominal series on the basis of semantic criteria (see above): personal, possessive, demonstrative, indefinite, relative, interrogative, exclamative pronouns. Each series – but the personal – presents a corresponding adjectival series.

6.4.1 Value `poss`

The value `possessive` refers to possessive pronouns which semantically espress possession.

type=poss	
Description	**Examples**
possessive	**mio**/poss **tuo**/poss **suo**/poss **nostro**/poss
	vostro/poss **loro**/poss **proprio**/poss
	mia/poss **tua**/poss **sua**/poss **nostra**/poss
	vostra/poss **loro**/poss **propria**/poss
	miei/poss **tuoi**/poss **suoi**/poss **nostri**/poss
	vostri/poss **loro**/poss **propri**/poss
	mie/poss **tue**/poss **sue**/poss **nostre**/poss
	vostre/poss **loro**/poss **proprie**/poss

6.4.2 Transcategorization phenomena with other pos-values

Confusion can be made between the PoS values `possessive pronoun` and `noun`, `possessive pronoun` and `possessive determiner`.

This last delimitation problem can be solved with the help of a syntactic criterion:

Syntactic criterion:

– the possessive pronoun, which is morphologically identical to the corresponding adjective (this does not happen in English, e.g. *my book/mine*), is recognized with respect to the pronominal adjective, since it is inserted in an NP obligatorily preceded by an article and not accompanied by the noun:
Vuoi una penna? Prendi la mia (and not * *Prendi mia*).

The corresponding determiner (pronominal adjective) can be also preceded by the article, but is by necessity linked to the noun:
Prendi la mia penna

A particular lexical class of nouns, the `family names`, can be preceded or not by the article: *mia sorella/la mia sorella* (but not * *la mia madre*).

pos=pron, type=poss		**pos=det, type=poss**	
Description	**Example**	**Description**	**Example**
pronoun	questa casa e' meglio della **mia**/`pron`	determiner	la **mia**/`det` casa e' nuova
	e' il **mio**/`pron`		**mio**/`det` padre verra' domani
	quel cane e' il **nostro**/`pron`		il **nostro**/`det` fratello e' la'
	non spende il denaro degli altri, ma il **proprio**/`pron`		Mario vide Carlo con la **propria**/`det` moglie

Antoher typical transcategorization phenomenon verifies when the `possessive pronoun` is used absolutely as a `noun`, becoming synonymous of the understood noun itself and giving rise to a sort of fixed expressions. Some dictionaries/grammars do not account for this phenomenon among the delimitation problems between pronoun and noun but still consider the absolute use as a pronominal one. Anyway, some examples are accounted for here and in the noun section:

pos=noun		**pos=pron, type=poss**	
Description	**Example**	**Description**	**Example**
noun = parents	i **miei**/`noun` sono piu' anziani dei tuoi	pronoun	questi abiti sono piu' malconci dei **miei**/`pron`
noun = what is due to me	datemi il **mio**/`noun`		tuo figlio e' piu' grande del **mio**/`pron`
noun = opinion	voglio dire la **mia**/`noun`		la tua carica e' piu' importante della **mia**/`pron`
noun = letter	dopo che e'arrivata l'ultima **tua**/`noun`		la mia volonta' e' meno forte della **tua**/`pron`
noun = allies	arrivano i **nostri**/`noun`		sono piu' belli dei **nostri**/`pron`

6.4.3 Delimitation problems between `pers` and `poss`

The Italian pronoun *loro* can be both `possessive pronoun` and `personal pronoun`.

pos=pron, type=pers		pos=pron, type=poss	
Description	**Example**	**Description**	**Example**
personal pronoun	da' **loro**/`pron, pers` un bacio	possessive pronoun	la **loro**/`pron, poss` casa e' sempre la piu' bella

6.4.4 Value `dem`

The value `demostrative` refers to demonstrative pronouns.

Semantic criterion:

– `demonstratives` are used to indicate someone or something, taking as reference point three coordinates: space, time and a relation closeness–distance.

The following demonstratives can be used either as pronouns or pronominal adjectives (here determiners).

`type=dem`	
Description	**Examples**
demonstrative	**questo**/`dem` **codesto**/`dem` **quello**/`dem` **quel**/`dem`
	questi/`dem` **codesti**/`dem` **quelli**/`dem` **quei**/`dem` **quegli**/`dem`
	questa/`dem` **codesta**/`dem` **quella**/`dem`
	queste/`dem` **codeste**/`dem` **quelle**/`dem`

The following demonstratives can be pronouns only.

`type=dem`	
Description	**Examples**
demonstrative	**cio'**/`dem` **quegli**/`dem` **costui**/`dem` **colui**/`dem`
	costei/`dem` **colei**/`dem` **costoro**/`dem` **coloro**/`dem`

6.4.5 Transcategorization phenomena with other pos-values

Confusion can be made between the values `demonstrative pronoun` and `determiner`.

pos=pron, type=dem		**pos=det, type=dem**	
Description	**Example**	**Description**	**Example**
pronoun	voglio **quella**/`pron` bianca	determiner	**quella**/`det` casa mi piace molto
	vuoi **questo**/`pron` o quello?		**questo**/`det` fatto mi ha sconvolto
	E **questi**/`pron` entro' all'improvviso		vuoi uno di **questi**/`det` biscotti?

6.4.6 Value `indf`

The value `indefinite` refers to indefinite pronouns which represent the largest pronominal class.

Semantic criterion:

– `indefinites` designate someone or something in a not specific and not determinative way. They can be subdivided in four groups on the basis of semantic features: *singolativi, collettivi, negativi, quantitativi.*

The following indefinites can be **pronouns** only.

`type=indf`	
Description	**Examples**
singolativi	**qualcuno**/`indf` **qualcheduno**/`indf` **qualcosa**/`indf`
	alcunche'/`indf` **uno**/`indf` **che**/`indf` **chi**/`indf`
collectives	**chiunque**/`indf` **chicchessia**/`indf` **checche'**/`indf`
	ognuno/`indf`
negatives	**niente**/`indf` **nulla**/`indf`

The following indefinites can be either **pronouns or pronominal adjectives** (here determiners).

type=indf	
Description	**Examples**
singolativi	**alcuno**/indf **certo**/indf **tale**/indf
	quale/indf **taluno**/indf **altro**/indf
	alcuna/indf **certa**/indf **taluna**/indf **altra**/indf
	alcuni/indf **certi**/indf **certuni**/indf
	tali/indf **taluni**/indf **quali**/indf **altri**/indf
	alcune/indf **certe**/indf **certune**/indf
	talune/indf **altre**/indf **altrui**/indf
collectives	**ciascuno**/indf **ciascheduno**/indf **cadauno**/indf
	ciascuna/indf **ciascheduna**/indf **cadauna**/indf
	tutto/indf **tutta**/indf **tutti**/indf **tutte**/indf
negatives	**nessuno**/indf **nessuna**/indf
quantifiers	**poco**/indf **alquanto**/indf **parecchio**/indf
	molto/indf **troppo**/indf **tanto**/indf **altrettanto**/indf
	poca/indf **alquanta**/indf **parecchia**/indf
	molta/indf **troppa**/indf **tanta**/indf **altrettanta**/indf
	pochi/indf **alquanti**/indf **parecchi**/indf
	molti/indf **troppi**/indf **tanti**/indf **altrettanti**/indf
	poche/indf **alquante**/indf **parecchie**/indf
	molte/indf **troppe**/indf **tante**/indf **altrettante**/indf

6.4.7 Transcategorization phenomena with other pos-values

Confusion can be made between the values `indefinite pronoun` and `determiner`, `indefinite pronoun` and `article`, `indefinite pronoun` and `numeral`, `indefinite pronoun` and `adverb`, `indefinite pronoun` and `noun`.

pos=pron, type=indf		**pos=det, type=indf**	
Description	**Example**	**Description**	**Example**
pronoun	**alcuni**/pron verranno domani	determiner	**alcuni**/det uomini preferiscono ...
	ciascuna/pron dica la sua		**ciascuna**/det partecipante prenda il posto
	E **nessuno**/pron parlo'		**nessuno**/det scolaro ha studiato la lezione
	pochi/pron parteciparono alla festa		**pochi**/det studenti saranno promossi

pos=noun		**pos=pron, type=indf**	
Description	**Example**	**Description**	**Example**
pronoun inserted in a NP	ho fatto di **tutto**/`noun`	pronoun	ecco il dolce, ma non mangiarlo **tutto**/`pron`
	ci manca un **niente**/`noun`		non gli hai detto **niente**/`pron`

pos=pron, type=indf		**pos=adv**	
Description	**Example**	**Description**	**Example**
pronoun	**niente**/`pron` mi fara' cambiare	adverb	non vale **niente**/`adv`
	pochi/`pron` sanno la verita'		ho mangiato **poco**/`adv`

pos=pron, type=indf		**pos=art**	
Description	**Example**	**Description**	**Example**
pronoun	e' **una**/`pron` che non si dimentica	article	**una**/`art` giornata particolare
	la/`pron` ama profondamente		e' **la**/`art` donna della sua vita

pos=pron, type=indf		**pos=num**	
Description	**Example**	**Description**	**Example**
pronoun	venne **uno**/`pron` della polizia	numeral	leggete il capitolo **uno**/`num`

6.4.8 Delimitation problems between `indf` and `int`

pos=pron, type=int		**pos=pron, type=indf**	
Description	**Example**	**Description**	**Example**
relative	dimmi **che**/`pron, type=int` preferisci	indefinite	un certo non so **che**/`pron, type=indf`

6.4.9 Delimitation problems between `indf` and `excl`

pos=pron, type=excl		pos=pron, type=indf	
Description	**Example**	**Description**	**Example**
exclamative	**che**/`pron, type=excl` devo sentire!	indefinite	un certo non so **che**/`pron, type=indf`
	chi/`pron, type=excl` vedo!		**chi**/`pron, type=indf` piange, chi ride

6.4.10 Delimitation problems between `indf` and `rel`

pos=pron, type=rel		pos=pron, type=indf	
Description	**Example**	**Description**	**Example**
relative	cio' **che**/`pron, type=rel` preferisco	indefinite	un certo non so **che**/`pron, type=indf`
	c'e' **chi**/`pron, type=rel` dice che sei finito		**chi**/`pron, type=indf` ride, chi piange

6.4.11 Value `int`

The value `interrogative` is used to encode interrogative pronouns.

Semantic/pragmatic criterion:

– `interrogative` pronouns are used to make direct or indirect questions, specifying three basic categories: `quality`, *quale testo preferisci?*; `quantity`, *quanta ne vuoi?*; `identity`, *dimmi chi c'e'*.

`type=int`	
Description	**Examples**
interrogative	**che**/`int` **chi**/`int` **cosa**/`int` **quale**/`int` **quali**/`int`
	quanto/`int` **quanta**/`int` **quanti**/`int` **quante**/`int`

Note that **chi** can be pronoun only, while the others can be either pronouns or pronominal adjectives (here determiner).

6.4.12 Transcategorization phenomena with other pos-values

Confusion can be made between the values `interrogative pronoun` and `interrogative determiner`, `interrogative pronoun` and `exclamative determiner`, `interrogative pronoun` and `adverb`, `interrogative pronoun` and `relative determiner`, `interrogative pronoun` and `noun`, `interrogative pronoun` and `conjunction`.

pos=pron, type=int		**pos=det, type=excl**	
Description	**Example**	**Description**	**Example**
interrogative pron	**quanti**/`pron`, `type=int` ne vuoi?	exclamative det	**quanti**/`det`, `type=excl` soldi!
	che/`pron`, `type=rel` c'e'?		**che**/`pron`, `type=excl` bello!

pos=pron, type=int		**pos=det, type=int**	
Description	**Example**	**Description**	**Example**
interrogative pron	**quale**/`pron`, `type=int` di questi preferisci?	interrogative det	dimmi **quale**/`det`, `type=int` libro vuoi

pos=pron, type=int		**pos=det, type=rel**	
Description	**Example**	**Description**	**Example**
interrogative pron	**quanto**/`pron`, `type=int` me ne occorre?	interrogative det	avra' **quanto**/`det`, `type=rel` denaro vuole

pos=pron, type=int		**pos=conj**	
Description	**Example**	**Description**	**Example**
pronoun	dimmi **che**/`pron`, `type=int` cosa ne sara' di lui	conjunction	sapere **che**/`conj` verrai, mi tranquillizza

pos=pron, type=int		**pos=noun**	
Description	**Example**	**Description**	**Example**
pronoun	dimmi **cosa**/`pron` ti occorre	noun	ho fatto una **cosa**/`noun` importante
	quanti/`pron` ne vuoi?		la teoria dei **quanti**/`noun`

pos=pron, type=int		**pos=adv**	
Description	**Example**	**Description**	**Example**
pronoun	**quanto**/`pron, type=int` ne vuoi?	adverb	non sai **quanto**/`adv` desideravo conscerti

6.4.13 Delimitation problems between `int` and `excl`

pos=pron, type=int		**pos=pron, type=excl**	
Description	**Example**	**Description**	**Example**
interrogative	**che**/`pron, type=int` racconti oggi?	exclamative	**che**/`pron, type=excl` dici!

6.4.14 Delimitation problems between `int` and `rel`

pos=pron, type=rel		**pos=pron, type=int**	
Description	**Example**	**Description**	**Example**
relative	**chi**/`pron, type=rel` cerca trova	interrogative	**chi**/`pron, type=int` lo sa?
	l'uomo **che**/`pron, type=rel` ami		**che**/`pron, type=int` ne sai?

6.4.15 Delimitation problems between `int` and `indf`

pos=pron, type=int		pos=pron, type=indf	
Description	**Example**	**Description**	**Example**
interrogative	dimmi **che**/`pron, type=int` preferisci	indefinite	un certo non so **che**/`pron, type=indf`
	dimmi **chi**/`pron, type=int` sei		**chi**/`pron, type=indf` piange, chi ride

6.4.16 Value `rel`

The value `relative` is used to encode relative pronouns.

Syntactic criterion:

– the relative pronoun has the function of relating the subordinate sentence with the governing sentence, representing an element of this last one, called "antecedent": the antecedent can be constituted by a noun, a pronoun, a verb, a whole sentence, e.g. *il libro* **che** *leggo e' noioso; tu,* **che** *sei un dottore; il perdonare,* **che** *e' un dovere di ogni uomo; ci sara' anche un'escursione,* **il che** *non guasta.*

type=rel	
Description	**Examples**
relative *invariant*	**che**/`rel` **cui**/`rel` **chi**/`rel`
relative *variable*	**il quale**/`rel` **la quale**/`rel` **i quali**/`rel` **le quali**/`rel`
	del quale/`rel` **dei quali**/`rel`
	al quale/`rel` **ai quali**/`rel`
	per il quale/`rel` **per i quali**/`rel`
	quanto/`rel` **quanti**/`rel`
	quale/`rel` **quali**/`rel`

6.4.17 Transcategorization phenomena with other pos-values

Confusion can be made between the values `relative pronoun` and `exclamative determiner`, `relative pronoun` and `interrogative determiner`, `relative pronoun` and `relative determiner`, `relative pronoun` and `conjunction`, `relative pronoun` and `adverb`, `relative pronoun` and `noun`.

pos=pron, type=rel		**pos=det, type=excl**	
Description	**Example**	**Description**	**Example**
relative	l'idea **che**/`pron, type=rel` mi piace	exclamative	**che**/`det, type=excl` bella idea!

pos=pron, type=rel		**pos=det, type=rel**	
Description	**Example**	**Description**	**Example**
pronoun	il fine **cui**/`pron, type=rel` aspiri	determiner	il pittore, la **cui**/`det, type=rel` fama e' grande,
	quante/`pron, type=rel` hanno ricevuto l'invito, entrino		prendi pure **quante**/`det, type=rel` matite vuoi

pos=pron, type=rel		**pos=det, type=int**	
Description	**Example**	**Description**	**Example**
relative pron	**quanti**/`pron, type=rel` sanno la verita', si alzino	interrogative det	**quanti**/`det, type=int` uomini conoscono la verita?

pos=pron, type=rel		**pos=conj**	
Description	**Example**	**Description**	**Example**
pronoun	il sapere, **che**/`pron, type=rel` tutti affascina,	conjunction	sapere **che**/`conj` verrai, mi tranquillizza
	lo redarguii, il **che**/`pron, type=rel` fu inutile		mi rallegro **che**/`conj` ti sia fatto vivo
	il tempo **che**/`pron, type=rel` corre via		hai piu' fortuna **che**/`conj` merito

pos=pron, type=rel		**adv**	
Description	**Example**	**Description**	**Example**
relative pron	**quanti**/`pron, type=rel` sanno la verita', si alzino	adverb	lavora **quanto**/`adv` le forze gli consentono

pos=pron, type=rel		**noun**	
Description	**Example**	**Description**	**Example**
relative pron	**quanti**/`pron, type=rel` sanno la verita', si alzino	noun	la teoria dei **quanti**/`noun`

6.4.18 Delimitation problems between `rel` and `int`

pos=pron, type=rel		**pos=pron, type=int**	
Description	**Example**	**Description**	**Example**
relative	**chi**/`pron, type=rel` cerca trova	interrogative	**chi**/`pron, type=int` lo sa?
	l'uomo **che**/`pron, type=rel` ami		**che**/`pron, type=int` ne sai?

6.4.19 Delimitation problems between `rel` and `excl`

pos=pron, type=rel		**pos=pron, type=excl**	
Description	**Example**	**Description**	**Example**
relative	le cose **che**/`pron, type=rel` piu' amo	exclamative	**che**/`pron, type=excl` dici!

6.4.20 Delimitation problems between `rel` and `indf`

pos=pron, type=rel		**pos=pron, type=indf**	
Description	**Example**	**Description**	**Example**
relative	cio' **che**/`pron, type=rel` preferisco	indefinite	un certo non so **che**/`pron, type=indf`
	c'e' **chi**/`pron, type=rel` dice che sei finito		**chi**/`pron, type=indf` ride, chi piange

6.4.21 Value `excl`

The value `exclamative` is used to encode exclamative pronouns.
Semantic criterion:

– `exclamative` pronouns are used to express an exclamation with respect to `quality`, *che spettacolo!*; `quantity`, *quanti soldi!*; `identity`, *guarda chi c'e'!*.

`type=excl`	
Description	**Examples**
exclamative	**che**/`excl` **chi**/`excl` **cosa**/`excl`
	quale/`excl` **quali**/`excl` **quanto**/`excl` **quanti**/`excl`

Note that *chi* can be pronoun only, while the others can be either pronouns or pronominal adjectives (here determiner).

6.4.22 Transcategorization phenomena with other pos-values

Confusion can be made between the values `exclamative pronoun` and `exclamative determiner`, `exclamative pronoun` and `interrogative determiner`, `exclamative pronoun` and `relative determiner`, `exclamative pronoun` and `adverb`, `exclamative pronoun` and `noun`, `exclamative pronoun` and `conjunction`, `exclamative pronoun` and `adverb`.

pos=det, type=int		**pos=pron, type=excl**	
Description	**Example**	**Description**	**Example**
relative det	**che**/`det, type=int` storia inventi ora?	exclamative pron	**che**/`pron, type=excl` sento!
	quanto/`det, type=int` dolce vuoi?		**quanto**/`pron, type=excl` ne ho perso!

pos=pron, type=excl		**pos=det, type=excl**	
Description	**Example**	**Description**	**Example**
pronoun	**quanto**/`pron, type=excl` mangi!	determiner	**quanto**/`det, type=excl` dolce mangi!
	che/`pron, type=excl` ne sara' di noi!		**che**/`det, type=excl` fine faremo!

pos=pron, type=excl		**pos=det, type=int**	
Description	**Example**	**Description**	**Example**
exclamative	**quanto**/`pron, type=excl` mangi!	det interrogative	**quanto**/`det, type=int` dolce vuoi?

pos=pron, type=excl		**pos=conj**	
Description	**Example**	**Description**	**Example**
pronoun	**che**/`pron, type=excl` sara' di noi!	conjunction	sapere **che**/`conj` verrai, mi tranquillizza

pos=pron, type=excl		**pos=noun**	
Description	**Example**	**Description**	**Example**
excl pronoun	**cosa**/`pron` non farei!	noun	ho fatto una **cosa**/`noun` importante
	Quanti/`pron, type=excl` ne farei!		la teoria dei **quanti**/`noun`

pos=pron, type=excl		**pos=adv**	
Description	**Example**	**Description**	**Example**
pronoun	**quanto**/`pron, type=excl` pretendi!	adverb	mi sono divertito **quanto**/`adv` mai mi ero divertito

6.4.23 Delimitation problems between `excl` and `rel`

pos=pron, type=rel		**pos=pron, type=excl**	
Description	**Example**	**Description**	**Example**
relative	l'uomo **che**/`pron, type=rel` vedo	exclamative	**che**/`pron, type=excl` vedo!
	quanti/`pron, type=rel` conoscono la verita' si alzino		**quanti**/`pron, type=excl` ne vedo!

6.4.24 Delimitation problems between `excl` and `int`

pos=pron, type=int		**pos=pron, type=excl**	
Description	**Example**	**Description**	**Example**
interrogative	**quanti**/`pron, type=int` ne vuoi?	exclamative	ma **quanti**/`pron, type=excl` ne vuoi!
	che/`pron, type=int` farai ora?		**che**/`pron, type=excl` mi tocca sentire!

6.4.25 Delimitation problems between `excl` and `indf`

pos=pron, type=excl		**pos=pron, type=indf**	
Description	**Example**	**Description**	**Example**
exclamative	**che**/`pron, type=excl` devo sentire!	indefinite	un certo non so **che**/`pron, type=indf`
	chi/`pron, type=excl` vedo!		**chi**/`pron, type=indf` piange, chi ride

6.4.26 Value `pers`

The value `personal` is used for the encoding of personal pronouns.

In Italian the use of personal pronouns, differently than other European languages, is not obligatory: *Tu parli, io ascolto; quando parli, ti ascolto.*

Morphological criteria:

– personal pronouns share with possessive pronouns the `person` value;
– they are subdivided into two subgroups, depending on the inflectional paradigm (feature `Inflection`): "forme toniche", here encoded as `strong`, and "forme atone" `weak` (Serianni 1988).
– they are further subdivided into two subgroups, on the basis of the **case**: "subject" (mapped onto the EAGLES Case value `nom`) and "complement" (mapped onto the EAGLES Case value `obl`).

6.5 Feature `infl`

Two values are pertinent, `strong` and `weak`, which represent here respectively the so-called "forme toniche" and "forme atone". Please note that, at present, this feature with the relevant values is not encoded in our lexicon: it has been introduced here in order to model the class of personal pronouns in a typed hierarchy. However, being the subclasses of weak and strong personal pronouns two closed class, this feature could be always be encoded (with some problems of homographies occurring at text level, see below 5.6.3).

6.5.1 Value `strg`

The value `strong` is used to encode the so-called "forme toniche" of personal pronouns.

`type=pers, inflect=strg`	
D e s c r i p t i o n	**E x a m p l e s**
Strong pers pron	**io**/`strg` **me**/`strg`
	tu/`strg` **te**/`strg`
	egli/`strg` **lui**/`strg` **esso**/`strg`
	ella/`strg` **lei**/`strg` **essa**/`strg`
	noi/`strg`
	voi/`strg`
	essi/`strg`
	esse/`strg`
	loro/`strg`
	se'/`strg`

6.5.2 Value `weak`

The value `weak` is used to encode the so-called "forme atone" of personal pronouns.

`type=pers, inflect=weak`	
Description	**Examples**
Weak pers pron	**mi**/`weak`
	ti/`weak`
	gli/`weak` **lo**/`weak`
	le/`weak` **la**/`weak`
	ci/`weak`
	vi/`weak`
	loro/`weak`
	le/`weak`
	li/`weak` **gli**/`weak`
	si/`weak`

6.6 Feature `case`

This feature with the values `nom` and `obl` encodes the two groups of personl pronouns in "subject" function and in "complement" function respectively.

6.6.1 Value `nom`

On the basis of the case value `nominative`, `strong personal` pronouns present the inflectional paradigm displayed below; `weak personal` pronouns are not inflected by this value.

The table below displays the paradigm of strong personal pronouns together with the different constraints of Gender Number and Person values in presence of the case value under analysis:

`type=pers, inflect=strg, case=nom`	
D e s c r i p t i o n	**E x a m p l e s**
pers=1 numb=sg gend=c	**io**/`nom`
pers=2 numb=sg gend=c	**tu**/`nom`
pers=3 numb=sg gend=m	**egli**/`nom` **lui**/`nom` **esso**/`nom`
pers=3 numb=sg gend=f	**ella**/`nom` **lei**/`nom` **essa**/`nom`
pers=1 numb=pl gend=c	**noi**/`nom`
pers=2 numb=pl gend=c	**voi**/`nom`
pers=3 numb=pl gend=m	**essi**/`nom`
pers=3 numb=pl gend=f	**esse**/`nom`
pers=3 numb=pl gend=c	**loro**/`nom`

6.6.2 Value `obl`

On the basis of the case value `oblique`, `strong` and `weak` personal pronouns present the following inflectional paradigms.
(Within the group of strong personal pronouns, please note the difference of the two paradigms on the basis of the case values).

type=pers, inflect=strong, case=obl	
D e s c r i p t i o n	**E x a m p l e s**
pers=1 numb=sg gend=c	**me**/`obl`
pers=2 numb=sg gend=c	**te**/`obl`
pers=3 numb=sg gend=m	**lui**/`obl` **esso**/`obl`
pers=3 numb=sg gend=f	**lei**/`obl` **essa**/`obl`
pers=1 numb=pl gend=c	**noi**/`obl`
pers=2 numb=pl gend=c	**voi**/`obl`
pers=3 numb=pl gend=m	**essi**/`obl`
pers=3 numb=pl gend=f	**esse**/`obl`
pers=3 numb=pl gend=c	**loro**/`obl`
pers=3 numb=n gend=c	**se'**/`obl`

type=pers, inflect=weak, case=obl	
D e s c r i p t i o n	**E x a m p l e s**
pers=1 numb=sg gend=c	**mi**/`obl`
pers=2 numb=sg gend=c	**ti**/`obl`
pers=3 numb=sg gend=m	**gli**/`obl` **lo**/`obl`
pers=3 numb=sg gend=f	**le**/`obl` **la**/`obl`
pers=1 numb=pl gend=c	**ci**/`obl`
pers=2 numb=pl gend=c	**vi**/`obl`
pers=3 numb=pl gend=c	**loro**/`obl`
pers=3 numb=pl gend=f	**le**/`obl`
pers=3 numb=pl gend=m	**li**/`obl` **gli**/`obl`
pers=3 numb=n gend=c	**si**/`obl`

6.6.3 Further analysis of the case value `obl`

The `oblique` case in Italian could be further analysed as a meta-value which is in *replacement* relation with the three values `dative, accusative` and `prepositional`, i.e. headed by preposition.
This further distinction at the level of case – which in the table of the Morphosyntax document is represented with the label `R` plus the index `1` pointing to the values it replaces (on their turn marked by the index `1`) – could be handled here with a feature `Oblique-Type` whose values are `dative, accusative` and `prepositional`.
Please note that, if one has a lexicon encoded with this level of detail and wants to reach the same depht of analysis at the level of text tagging, manual or, hopefully, semi-automatic means should be used, as homographies occur between the following cases:
– `accusative` and `prepositional` in the series of strong personal pronouns;
– `accusative` and `dative` in the series of weak personal pronouns.
The possible homographies are displyed in the confusion tables below:

infl=strg, case=acc		**infl=strg, case=prep**	
Description	**Example**	**Description**	**Example**
me	guarda **me**/acc	te	esce con **me**/prep
te	guarda **te**/acc	te	esce con **te**/prep
lui	guarda **lui**/acc	lui	esce con **lui**/prep
lei	guarda **lei**/acc	lei	esce con **lei**/prep
noi	guarda **noi**/acc	noi	esce con **noi**/prep
voi	guarda **voi**/acc	voi	esce con **voi**/prep
loro	guarda **loro**/acc	loro	esce con **loro**/prep
se	ama **se'**/acc	se	si chiude in **se'**/prep

infl=weak, case=acc		**infl=weak, case=dat**	
Description	**Example**	**Description**	**Example**
mi	**mi**/acc ama	mi	**mi**/dat dona
ti	**ti**/acc ama	ti	**ti**/dat dona
le	**le**/acc, num=pl ama	le	**le**/dat, num=sg dona
ci	**ci**/acc ama	ci	**ci**/dat dona
vi	**vi**/acc ama	vi	**vi**/dat dona
si	**si**/acc pettina	si	**si**/dat regala una rosa

Please note that in the `weak` class, the following pronouns of `3rd person` are not ambiguous between `dative` and `accusative`:

type=pers, inflect=weak	
Description	**Examples**
lo	**lo**/acc ama
gli	**gli (a lui)**/dat dona
la	**la**/acc ama
li	**li**/acc ama
loro	dona **loro**/dat

6.6.4 Graphical variations of weak pronoun groups

`Weak` pronouns, when combined in sequences of pronouns, undergo the following graphical variations (which make them to be homograph with `strong` personal pronouns):

`type=pers, inflect=weak`	
Description	**Examples**
mi + lo, la ...	**me**/`weak` lo, me la, me li, me le, me ne
ti + lo, la ...	**te**/`weak` lo, te la, te li, te le, te ne
gli + lo, la ...	**glielo**/`weak` gliela, glieli, gliele, gliene
si + lo, la ...	**se**/`weak` lo, se la, se li, se le, se ne
ci + lo, la ...	**ce**/`weak` lo, ce la, ce li, ce le, ce ne
vi + lo, la ...	**ve**/`weak` lo, ve la, ve li, ve le, ve ne

6.7 Feature `pers`

In Italian, `personal` and `possessive` pronouns are inflected according to the feature `person`, which has the values `1, 2, 3`.

6.7.1 Value `1`

The value 1 applies to weak and strong personal pronouns and possessive pronouns.

`pers=1`	
Description	**Examples**
Weak personal pronoun	**mi** /`1` dice
	ci/`1` dice
Strong personal pronoun	non fa per **me**/`1`
	non fa per **noi**/`1`
Possessive pronoun	e' il **mio**/`1`
	e' il **nostro**/`1`

6.7.2 Value `2`

The value 2 applies to weak and strong personal pronouns and possessive pronouns.

`pers=2`	
Description	**Examples**
Weak personal pronoun	**ti** /`2` dice
	vi/`2` dice
Strong personal pronoun	non fa per **te**/`2`
	non fa per **voi**/`2`
Possessive pronoun	e' il **tuo**/`2`
	e' il **vostro**/`2`

6.7.3 Value 3

The value 3 applies to weak and strong personal pronouns and possessive pronouns.

pers=3	
Description	**Examples**
Weak personal pronoun	**gli**/3 dice
	le/3 dice
	dice **loro**/3
Strong personal pronoun	non fa per **lui**/3
	non fa per **loro**/3
	essi/3 dicono
Possessive pronoun	e' il **suo**/3
	e' il **loro**/3

6.8 Feature gend

The feature `gender` applies to all the Types of pronouns.

An interesting generalization emerges from the Type hierarchy table of personal pronouns (see 5.2) about the constraints of the gender in combination with the feature `person`: for the items with the person values `1` and `2` only the `common` gender is relevant. They may be interpreted either as masculine or as feminine pronouns, the gender depending from the gender of the semantic referent.

6.8.1 Value m

The value `masculine` applies to all pronouns, except the personal pronouns of first and second person.

gend=m	
D e s c r i p t i o n	**E x a m p l e s**
possessive pronoun	il **mio**/`m` e' buono
	il **suo**/`m` e' buono
demonstrative pronoun	**quello**/`m` e' buono
	questi/`m` sono buoni
indefinite pronoun	**ognuno**/`m` pensa per se'
	ciascuno/`m` dice la sua
relative pronoun	il libro **al quale**/`m` ti riferisci
interrogative pronoun	**quanto**/`m` ne vuoi?
	quanti/`m` ne prendi?
exclamative pronoun	**quanto**/`m` ci mancherai!
weak personal pronoun	**lo**/`m` guardo
	gli/`m` parlerai?
strong personal pronoun	**egli**/`m` verra'
	guardo **lui**/`m` con amore

6.8.2 Value `f`

The value `feminine` applies to all pronouns, except the personal pronouns of first and second person.

gend=f	
Description	**Examples**
possessive pronoun	la **mia**/`f` e' buona
	la **sua**/`f` e' buona
demonstrative pronoun	**quella**/`f` e' buona
	queste/`f` sono buone
indefinite pronoun	**ognuna**/`f` parli per se'
	ciascuna/`f` dice la sua
relative pronoun	la donna **la quale**/`f` ami
interrogative pronoun	**quanta**/`f` ne vuoi?
	quante/`f` ne sai?
exclamative pronoun	**quante**/`f` ne inventi!
weak personal pronoun	**la**/`f` guardo
	le/`f` parlerai?
strong personal pronoun	**ella**/`f` verra'
	guardo **lei**/`f` con amore

6.8.3 Value `c`

The value `common` applies to all pronouns.

gend=c	
Description	**Examples**
possessive pronoun	il **loro**/`c` e' il migliore
demonstrative pronoun	**cio'**/`c` e' vero
indefinite pronoun	**chiunque**/`c` parli, sara' premiato
relative pronoun	non vedo **chi**/`c` parla
interrogative pronoun	**quale**/`c` vuoi?
	che/`c` mi dici?
exclamative pronoun	**quale**/`c` sara' la tua sorte!
weak personal pronoun	**mi**/`c` guarda
	vi/`c` parlera' domani
strong personal pronoun	**io**/`c` verro'
	viene con **voi**/`c`

6.9 Feature n

The feature `number` with its three values applies to all pronouns. The value `invariant` does not apply to the series of personal pronouns of first and second person.

6.9.1 Value sg

The value `singular` apply to all `type`-values of `pronouns`.

numb=sg	
D e s c r i p t i o n	**E x a m p l e s**
possessive pronoun	il **mio**/sg e' buono
	la **tua**/sg e' buona
demonstrative pronoun	**quello**/sg e' bello
	quella/sg e' bella
indefinite pronoun	**ognuno**/sg sa perche'
	niente/sg e' perduto
	tutto/sg si crea
relative pronoun	l'uomo **che**/sg ami
	la donna **che**/sg cerchi
interrogative pronoun	**chi**/sg viene a cena?
	quale/sg vuoi?
exclamative pronoun	**quale**/sg sara' al tua sorte!
weak personal pronoun	**mi**/sg cerchi
	lo/sg vedi?
strong personal pronoun	esci con **me**/sg
	io/sg canto

6.9.2 Value `pl`

The value `plural` apply to all `type`-values of `pronouns`.

`numb=pl`	
D e s c r i p t i o n	**E x a m p l e s**
possessive pronoun	le **nostre**/`pl` sono buone
	i vostri **tua**/`pl` sono buoni
demonstrative pronoun	**quelli**/`pl` sono belli
	quelle/`pl` sono belle
indefinite pronoun	**tutti**/`pl` sanno perche'
	poche/`pl` verranno
	tali/`pl` sono uomini e donne
relative pronoun	gli uomini **ai quali**/`pl` credi
	le donne **alle quali**/`pl` aneli
interrogative pronoun	**quali**/`pl` sono?
	quanti/`pl` ne vuoi?
exclamative pronoun	**quali**/`pl` saranno i nostri!
weak personal pronoun	**li**/`pl` cerchi
	ci/`pl` vedi?
strong personal pronoun	esci con **noi**/`pl`
	voi/`pl` cantate

6.9.3 Value `n`

The value `invariant` apply to the `type`-values `possessive, interrogative, relative, exclamative` and `personal`, these last in presence of the `person` value `3`.

`numb=n`	
D e s c r i p t i o n	**E x a m p l e s**
possessive pronoun	questa casa e' **loro**/`n`
	queste case sono **loro**/`n`
relative pronoun	attivita' **che**/`n` tu non fai
interrogative pronoun	**chi**/`n` vedi?
	che/`n` ne sai?
exclamative pronoun	**che**/`n` farei per te!
weak personal pronoun	**si**/`n` prepara un panino
	si/`n` danno alla vela
strong personal pronoun	chi fa da **se'**/`n`
	cura **se'**/`n` come un bambino

7 Determiner

7.1 Table in the Morphosyntax document

D	**Type**	whType	**Pers**	**Gend**	**Numb**	Case	Pos	Infl
E-L0	**DETERMINER**							
E L 1	**dem** **indf** **poss** **int** **rel**		**1** **2** **3**	$\mathbf{m}_1$ $\mathbf{f}_1$ n	$\mathbf{sg}_1$ $\mathbf{pl}_1$		sg pl	
L 2 a	int/rel dem/indf					nom gen dat acc		
2 b	Fr/It $\mathbf{excl}_A$			It $\mathbf{c}_{D1}$	It $\mathbf{n}_{D1}$			Ge infl Ge no-infl

7.2 Type hierarchy table

D E T E R M I N E R						
Feature	**Values**					
pos	determiner					
type	poss	dem	indf	int	rel	excl
pers	1, 2 3	–				
numb gend	sg, pl, n m, f, c	sg, pl m, f	sg, pl, n m, f, c	sg, pl, n m, f, c	sg, pl, n m, f, c	sg, pl, n m, f, c
Ex:	mio/a nostro/i loro	quello/a quelli/e codesto	alcuno/a ogni molto/i	che? quali? quante?	quanto	che! quanto! quali!

7.3 pos-value `determiner`

7.3.1 Central semantics of value `determiner`

The class of the Italian `pronominal adjectives` is dealt with in the Determiner section.

They represent a "closed" class, i.e. given a language, the determiners can be always enumerated.
Properties shared by the members of this category can be grouped under the following criteria.

Morphological criterion:

– determiners share with the `noun` and `adjective` the agreement in **gender**, *questo, questa*, and **number**, *questo, questi*. The possessive are characterized by the Person feature.

Syntactic peculiarities can be isolated that can be of help to distinguish pronouns from pronominal adjectives (see below, under possessive type).

Semantic criteria:

– the members of this class express a deictic function:
the "belonging" of a given object – **possessives**, *il mio libro*;
the collocation in the space of a given object – **demonstratives**, *questo libro*;
the undeterminate quantity – **indefinites**, *alcuni libri*;
a determination – **interrogatives**, *quali libri?*;
an exclamation – **exclamatives**, *che libri!*;
the **relatives** *i cui libri*.

pos=det	
D e s c r i p t i o n	**E x a m p l e s**
possessive	**mio**/`poss` **tuo**/`poss` **suo**/`poss` **nostro**/`poss`
	vostro/`poss` **loro**/`poss` **proprio**/`poss`
demonstrative	**questo**/`dem` **codesto**/`dem` **quello**/`dem` **quel**/`dem`
indefinite	**alcuno**/`indf` **certo**/`indf` **tale**/`indf`
	taluno/`indf` **quale**/`indf`
	altro/`indf` **altrui**/`indf`
	qualunque/`indf` **qualsiasi**/`indf` **tutto**/`indf`
	ciascuno/`indf` **ogni**/`indf`
	nessuno/`indf` **poco**/`indf` **alquanto**/`indf` **parecchio**/`indf`
	molto/`indf` **troppo**/`indf` **tanto**/`indf` **altrettanto**/`indf`
interrogative	**che**/`int` **quale**/`int` **quanto**/`int`
relative	**cui**/`rel` **quale**/`rel` **quanto**/`rel`
exclamative	**che**/`excl` **quale**/`excl` **quanto**/`excl`

7.3.2 Transcategorization phenomena with other pos-values

Transcategorization phenomena or confusions can be made between the `pos` values `determiner` and `noun`, `pronoun` and `determiner`, `determiner` and `adverb`.

pos=noun		**pos=det**	
Description	**Example**	**Description**	**Example**
noun	formano un **tutto**/`noun` piacevole	determiner	non mangiare **tutto**/`det` il dolce
	ha sviluppato la teoria dei **quanti**/`noun`		**quanti**/`det` soldi quadagna?

pos=pron		**pos=det**	
Description	**Example**	**Description**	**Example**
pronoun	prestami la **tua**/`pron`	determiner	mi presti la **tua**/`det` macchina
	mi piace **quella**/`pron`		guarda **quella**/`det` macchina
	alcuni/`pron` verranno domani		**alcuni**/`det` studenti ci lasceranno
	quali/`pron` vuoi?		**quali**/`det` citta' visiteremo?

pos=det		**pos=adv**	
Description	**Example**	**Description**	**Example**
determiner	**quanto**/`det` denaro vuoi?	adverb	strillava **quanto**/`adv` poteva
	poca/`det` gente sa la verita'		ho dormito **poco**/`adv`

7.4 Feature `type`

This feature encodes the subclasses identified in the determiner series on the basis of semantic criteria (see above): possessive, demonstrative, indefinite, relative, interrogative, exclamative determiners.

7.4.1 Value `poss`

Semantic criterion:

– this value refers to possessive determiners which semantically espress possession.

Morphologic criterion:

– inflections are based on the **Person** of Possessor (1st *mio*, 2nd *tuo*, 3rd *suo*) and on the **Gender** (femm. *mia, tua, sua*) and **Number** (plur. *miei, tuoi, suoi*) of the Possedee. (Note that Gender of Possessor is not explicitly marked in the tag, while tagging, since it is retrievable at lexical level, i.e. from the lemma).

type=poss	
Description	**Examples**
possessive	**mio**/`poss` **tuo**/`poss` **suo**/`poss` **nostro**/`poss`
	vostro/`poss` **loro**/`poss` **proprio**/`poss`
	mia/`poss` **tua**/`poss` **sua**/`poss` **nostra**/`poss`
	vostra/`poss` **loro**/`poss` **propria**/`poss`
	miei/`poss` **tuoi**/`poss` **suoi**/`poss` **nostri**/`poss`
	vostri/`poss` **loro**/`poss` **propri**/`poss`
	mie/`poss` **tue**/`poss` **sue**/`poss` **nostre**/`poss`
	vostre/`poss` **loro**/`poss` **proprie**/`poss`

7.4.2 Transcategorization phenomena with other pos-values

Confusion can be made between the values `possessive determiner` and `possessive pronoun`.

Syntactic criterion:

– the possessive pronoun, which is morphologically identical to the corresponding adjective (this does not happen in English, e.g. *my book/mine*), is recognized with respect to the pronominal adjective, since it is inserted in an NP preceded by an article and not accompanied by a noun:

Vuoi una penna? Prendi la mia. and not * *Prendi mia.*

The adjective is not accompanied by the noun when it is in predicative function:

Questa penna e' mia.

The corresponding adjective can be also preceded by the article, but is by necessity linked to the noun:

Prendi la mia penna

– A particular lexical class of nouns, the `family names`, can be preceded or not by the article:

mia sorella/la mia sorella, (but not * *la mia madre*).

pos=pron, type=poss		**pos=det, type=poss**	
Description	**Example**	**Description**	**Example**
pronoun	questa casa e' meglio della **mia**/`pron`	determiner	la **mia**/`det` casa e' nuova
	e' il **mio**/`pron`		**mio**/`det` padre verra' domani
	quel cane e' il **nostro**/`pron`		il **nostro**/`det` fratello e' la'
	non spende il denaro degli altri, ma il **proprio**/`pron`		Mario vide Carlo con la **propria**/`det` moglie

Antoher typical transcategorization phenomenon is between `possessive determiner` and `possessive pronoun`, where the pronoun can be categorized as a `noun` (in the meaning exemplified below) and between `possessive determiner` and `personal pronoun`:

pos=noun		**pos=det, type=poss**	
Description	**Example**	**Description**	**Example**
noun = parents	i **miei**/`noun` sono piu' anziani dei tuoi	pronoun	i **miei**/`det` abiti sono malconci
noun = what is due to me	datemi il **mio**/`noun`		**mio**/`det` figlio e' piu' piccolo del tuo
noun = opinion	voglio dire la **mia**/`noun`		la **mia**/`det` carriera e' al culmine
noun = letter	dopo che e'arrivata l'ultima **tua**/`noun`		la **tua**/`det` volonta' e molto ferma
noun = allies	arrivano i **nostri**/`noun`		i **nostri**/`det` bambini sono i piu' belli

pos=pron, type=pers		**pos=det, type=poss**	
Description	**Example**	**Description**	**Example**
pronoun	vado con **loro**/`pron, type=pers`	determiner	i **loro**/`det, type=poss` figli

7.4.3 Value `dem`

This value refers to demonstrative determiners.

Semantic criterion:

– they are used to indicate someone or something, taking three coordinates as a reference point: space, time and the relation closeness–distance.
Morphological criterion:

– when used as determiners, the demonstratives agree in gender and number with the connected noun.

Syntactic criteria:

– the demonstrative is incompatible with the `definite` and `indefinite article`;
– in the NP it always takes the first position:
`quel libro` (NP=DET-dem NOUN) *non e' in vendita*
`quel libro rosso` (NP=DET-dem NOUN ADJ) *non e' in vendita*
indossa `quel vestito mio` (NP=DET-dem NOUN DET-poss)
ho visto `questi due bambini` (NP=DET-dem NUM NOUN)

`type=dem`	
Description	**Examples**
demonstrative	**questo**/`dem` **codesto**/`dem` **quello**/`dem` **quel**/`dem`
	questi/`dem` **codesti**/`dem` **quelli**/`dem` **quei**/`dem` **quegli**/`dem`
	questa/`dem` **codesta**/`dem` **quella**/`dem`
	queste/`dem` **codeste**/`dem` **quelle**/`dem`

7.4.4 Transcategorization phenomena with other pos-values

Confusion can be made between the values `demonstrative pronoun` and `determiner`.

pos=pron, type=dem		**pos=det, type=dem**	
Description	**Example**	**Description**	**Example**
pronoun	voglio **quella**/`pron` bianca	determiner	**quella**/`det` casa mi piace molto
	vuoi **questo**/`pron` o quello?		**questo**/`det` fatto mi ha sconvolto
	E **questi**/`pron` entro' all'improvviso		vuoi uno di **questi**/`det` biscotti?

7.4.5 Value `indf`

This value refers to indefinite determiners which represent the most consistent class.

Semantic criterion:

– indefinites designate someone or something in a not specific and not determinative way. They can be subdivided in four groups on the basis of semantic features: *singolativi, collettivi, negativi, quantitativi.*

The following can be either **pronouns or determiners**.

type=indf	
Description	**Examples**
singolativi	**alcuno**/`indf` **certo**/`indf` **tale**/`indf`
	quale/`indf` **taluno**/`indf` **altro**/`indf`
	alcuna/`indf` **certa**/`indf` **taluna**/`indf` **altra**/`indf`
	alcuni/`indf` **certi**/`indf` **certuni**/`indf`
	tali/`indf` **taluni**/`indf` **quali**/`indf` **altri**/`indf`
	alcune/`indf` **certe**/`indf` **certune**/`indf`
	talune/`indf` **altre**/`indf` **altrui**/`indf`
collectives	**ciascuno**/`indf` **ciascheduno**/`indf` **cadauno**/`indf`
	ciascuna/`indf` **ciascheduna**/`indf` **cadauna**/`indf`
	tutto/`indf` **tutta**/`indf` **tutti**/`indf` **tutte**/`indf`
negatives	**nessuno**/`indf` **nessuna**/`indf`
quantifiers	**poco**/`indf` **alquanto**/`indf` **parecchio**/`indf`
	molto/`indf` **troppo**/`indf` **tanto**/`indf` **altrettanto**/`indf`
	poca/`indf` **alquanta**/`indf` **parecchia**/`indf`
	molta/`indf` **troppa**/`indf` **tanta**/`indf` **altrettanta**/`indf`
	pochi/`indf` **alquanti**/`indf` **parecchi**/`indf`
	molti/`indf` **troppi**/`indf` **tanti**/`indf` **altrettanti**/`indf`
	poche/`indf` **alquante**/`indf` **parecchie**/`indf`
	molte/`indf` **troppe**/`indf` **tante**/`indf` **altrettante**/`indf`

The following can be **determiners** only.

type=indf	
Description	**Examples**
singolativi	**qualche**/`indf`
collectives	**qualunque**/`indf` **qualsiasi**/`indf` **qualsivoglia**/`indf` **ogni**/`indf`
negatives	–
quantifiers	–

7.4.6 Transcategorization phenomena with other pos-values

Confusion can be made between the values `indefinite pronoun` and `determiner`, `indefinite determiner` and `adverb`, `indefinite determiner` and `noun`, `indefinite determiner` and `relative determiner`, `indefinite determiner` and `relative pronoun`, `indefinite determiner` and `exclamative pronoun`, `indefinite determiner` and `exclamative determiner`, `indefinite determiner` and `interrogative pronoun`, `indefinite determiner` and `interrogative determiner`.

pos=pron, type=indf		**pos=det, type=indf**	
Description	**Example**	**Description**	**Example**
pronoun	**alcuni**/`pron` verranno domani	determiner	**alcuni**/`det` uomini preferiscono ...
	ciascuna/`pron` dica la sua		**ciascuna**/`det` partecipante prenda il posto
	E **nessuno**/`pron` parlo'		**nessuno**/`det` scolaro ha studiato la lezione
	pochi/`pron` parteciparono alla festa		**pochi**/`det` studenti saranno promossi

pos=noun		**pos=det, type=indf**	
Description	**Example**	**Description**	**Example**
noun	ho fatto di **tutto**/`noun`	pronoun	**tutto**/`det` il dolce che vuoi

pos=det, type=indf		**pos=adv**	
Description	**Example**	**Description**	**Example**
determiner	**poca**/`det` gente sa la verita'	adverb	ho mangiato **poco**/`adv`

pos=det, type=indf		**pos=det, type=rel**	
Description	**Example**	**Description**	**Example**
det, type=indf	in un certo **qual**/`det, type=indf` modo	pron, type=rel	fece un errore **quale**/`pron, type=rel` nessuno aveva mai fatto
	parla di lei con un certo **quale**/`det, type=indf` rimpianto		il capo, **il quale**/`pron, type=rel` mi ha rassicurato,

pos=det, type=indf		pos=pron, type=rel	
Description	**Example**	**Description**	**Example**
det, type=indf	c'era una certa **quale**/`det, type=indf` amarezza nella sua voce	det, type=rel	... **la quale**/`det, type=rel` gente pensa che tu menta

pos=det, type=indf		pos=det, type=excl	
Description	**Example**	**Description**	**Example**
det, type=indf	parla di lei con un certo **qual**/`det, type=indf` rimpianto	det, type=excl	**quale**/`det, type=excl` noia!

pos=det, type=indf		pos=pron, type=excl	
Description	**Example**	**Description**	**Example**
det, type=indf	parla di lei con un certo **qual**/`det, type=indf` rimpianto	pron, type=excl	**qual**/`pron, type=excl` e'!

pos=det, type=indf		pos=det, type=int	
Description	**Example**	**Description**	**Example**
det, type=indf	parla di lei con un certo **qual**/`det, type=indf` rimpianto	det, type=int	**quali**/`det, type=excl` libri vuoi?

pos=det, type=indf		pos=pron, type=int	
Description	**Example**	**Description**	**Example**
det, type=indf	parla di lei con un certo **qual**/`det, type=indf` rimpianto	pron, type=int	**quale**/`pron, type=excl` vuoi di questi?

7.4.7 Value `int`

Semantic criterion:

– interrogative pronouns are used to make direct or indirect questions, specifying three basic categories: `quality`, *quale testo preferisci?*; `quantity`, *quanta pasta vuoi?*; `identity`, *dimmi che uomo e'.*

type=int	
Description	**Examples**
interrogative	**che**/`int` **quale**/`int` **quali**/`int`

7.4.8 Transcategorization phenomena with other pos-values

Confusion can be made between the values `interrogative determiner` and `exclamative pronoun`, `interrogative determiner` and `exclamative determiner`, `interrogative pronoun` and `interrogative determiner`, `interrogative determiner` and `relative pronoun`, `interrogative determiner` and `relative determiner`, `interrogative determiner` and `indefinite pronoun`, `interrogative determiner` and `indefinite determiner`, `interrogative determiner` and `adverb`, `interrogative pronoun` and `noun`, `interrogative pronoun` and `conjunction`.

pos=pron, type=rel		pos=det, type=int	
Description	**Example**	**Description**	**Example**
pron, type=rel	trovera' **quanto**/`pron, type=rel` cerca	det, type=int	**quanto**/`det, type=int` dolce vuoi?
	cio' **che**/`pron, type=rel` vuole, avra'		**che**/`det, type=int` storia e' questa?

pos=det, type=rel		pos=det, type=int	
Description	**Example**	**Description**	**Example**
pron, type=rel	avra' **quanto**/`pron, type=rel` denaro le occorre	det, type=int	**quanto**/`det, type=int` denaro guadagna?
	quanti/`det, type=int` studenti desiderano iscriversi, possono farlo		**quanti**/`pron, type=excl` uomini sono presenti?

pos=det, type=int		**pos=pron, type=excl**	
Description	**Example**	**Description**	**Example**
interrogative	**che**/`det, type=int` storie racconti oggi?	exclamative	**che**/`pron, type=excl` dici!

pos=det, type=int		**pos=det, type=excl**	
Description	**Example**	**Description**	**Example**
interrogative	**quanto**/`det, type=int` tempo ci vorra'?	exclamative	**quanto**/`det, type=excl` tempo sprecato!
	quale/`pron, type=rel` voto accetterai?		**quale**/`det, type=excl` sgomento!

pos=det, type=int		**pos=det, type=indf**	
Description	**Example**	**Description**	**Example**
interrogative	dimmi **quale**/`det, type=int` libro voui	indefinite	una certa **quale**/`det, type=indf` amarezza velava la sua voce

pos=det, type=int		**pos=pron, type=indf**	
Description	**Example**	**Description**	**Example**
interrogative	dimmi **che**/`det, type=int` gente hai visto	indefinite	un certo non so **che**/`pron, type=indf`

pos=pron, type=int		**pos=det, type=int**	
Description	**Example**	**Description**	**Example**
pronoun	**quale**/`pron, type=int` di questi preferisci?	determiner	dimmi **quale**/`det, type=int` libro vuoi
	quanti/`pron, type=int` ne vuoi?		dimmi **quanti**/`det, type=int` libri vuoi
	che/`pron, type=int` c'e'?		**che**/`det, type=int` storia e' questa?

pos=det, type=int		**pos=conj**	
Description	**Example**	**Description**	**Example**
pronoun	dimmi **che**/`det, type=int` storia va raccontando	conjunction	sapere **che**/`conj` verrai, mi tranquillizza

pos=det, type=int		**pos=noun**	
Description	**Example**	**Description**	**Example**
interrogative	**quanti**/`det, type=int` anni hai?	noun	la teoria dei **quanti**/`noun`

pos=det, type=int		**pos=adv**	
Description	**Example**	**Description**	**Example**
pronoun	**quanto**/`det, type=int` vino vuoi?	adverb	**quanto**/`adv` bevi?

7.4.9 Value `rel`

Syntactic criterion:

– the relative determiner has the function of relating the subordinate sentence with the governing one.

type=rel	
Description	**Examples**
relative *invariant*	**cui**/rel
relative *variable*	**il quale**/rel **la quale**/rel **i quali**/rel **le quali**/rel
	del quale .../rel **dei quali ...**/rel
	al quale .../rel **ai quali ...**/rel
	quanto/rel **quanta**/rel
	quanti/rel **quante**/rel

7.4.10 Transcategorization phenomena with other pos-values

Confusion can be made between the values `relative determiner` and `interrogative pronoun`, `relative determiner` and `exclamative pronoun`, `relative determiner` and `exclamative determiner`, `relative determiner` and `relative pronoun`.

pos=det, type=rel		**pos=pron, type=int**	
Description	**Example**	**Description**	**Example**
relative	**quanti**/det, type=rel spettatori erano presenti, ammisero ...	interrogative	**quanti**/pron, type=int ne verranno?

pos=det, type=rel		**pos=det, type=int**	
Description	**Example**	**Description**	**Example**
relative	**quanti**/det, type=rel spettatori erano presenti, ammisero ...	interrogative	**quanti**/det, type=int spettatori verranno?

pos=det, type=rel		**pos=pron, type=excl**	
Description	**Example**	**Description**	**Example**
relative	tante teste, **quanti**/det, type=rel pareri	exclamative	**quanti**/pron, type=excl ne sono passati!

pos=det, type=rel		pos=det, type=excl	
Description	**Example**	**Description**	**Example**
relative	tante teste, **quanti**/`det, type=rel` pareri	exclamative	**quanti**/`det, type=excl` pareri ho sentito!

pos=pron, type=rel		pos=det, type=rel	
Description	**Example**	**Description**	**Example**
pronoun	il fine **cui**/`pron, type=rel` aspiri	determiner	il pittore, la **cui**/`det, type=rel` fama e' grande,
	il successo, **il quale**/`pron, type=rel` arriva quando meno te lo aspetti		..., **il quale**/`det, type=rel` successo arrivo'.

pos=det, type=rel		pos=det, type=indf	
Description	**Example**	**Description**	**Example**
relative	..., il **quale**/`det, type=rel` capo mi ha rassicurato	indefinite	parla di lei con una certa **quale**/`det, type=indf` amarezza

pos=det, type=rel		pos=pron, type=indf	
Description	**Example**	**Description**	**Example**
det. relative	..., il **quale**/`det, type=rel` capo mi ha rassicurato	pron. indefinite	**quale**/`pron, type=indf` che sia la tua opinione

7.4.11 Value `excl`

Semantic criterion:

– exclamative determiner are used to express an exclamation with respect to `quality`, *che spettacolo!*; `quantity`, *quanti soldi!*.

type=excl	
Description	**Examples**
exclamative	**che**/excl **quale**/excl **quali**/excl **quanto**/excl

7.4.12 Transcategorization phenomena with other pos-values

Confusion can be made between the values `interrogative pronoun` and `exclamative determiner`, `exclamative pronoun` and `exclamative determiner`, `exclamative determiner` and `interrogative determiner`, `exclamative determiner` and `relative pronoun`, `exclamative determiner` and `indefinite pronoun`, `exclamative determiner` and `adverb`, `exclamative determiner` and `noun`, `exclamative pronoun` and `conjunction`.

pos=pron, type=rel		**pos=det, type=excl**	
Description	**Example**	**Description**	**Example**
relative	l'uomo **che**/det, type=rel vedo	exclamative	**che**/pron, type=excl stupendo spettacolo!
	quanti/det, type=rel spettatori erano presenti		**quanti**/det, type=excl soldi sprecati!

pos=det, type=rel		**pos=det, type=excl**	
Description	**Example**	**Description**	**Example**
det relative	la **quale**/det, type=rel attrice e' famosa in tutto il mondo	det exclamative	**quale**/det, type=excl storia inventi!

pos=det, type=int		**pos=pron, type=excl**	
Description	**Example**	**Description**	**Example**
det interrogative	**che**/det, type=int storia inventi ora?	det exclamative	**che**/det, type=excl storia incredibile!

pos=pron, type=int		**pos=det, type=excl**	
Description	**Example**	**Description**	**Example**
interrogative	**quanti**/pron, type=int ne vuoi?	exclamative	ma **quanti**/det, type=excl soldi vuoi!

pos=det, type=excl		**pos=pron, type=indf**	
Description	**Example**	**Description**	**Example**
relative	**che**/`det`, `type=excl` magnifica giornata!	indefinite	un certo non so **che**/`pron`, `type=indf`

pos=pron, type=excl		**pos=det, type=excl**	
Description	**Example**	**Description**	**Example**
pronoun	**quanto**/`pron`, `type=excl` ne hai preso!	determiner	**quanto**/`det`, `type=excl` dolce mangi!
	che/`pron`, `type=excl` ne sara' di noi!		**che**/`det`, `type=excl` fine faremo!

pos=det, type=indf		**pos=det, type=excl**	
Description	**Example**	**Description**	**Example**
indefinite	c'era una certa **quale**/`det`, `type=indf` amarezza nella sua voce	exclamative	**quale**/`det`, `type=excl` orrore!

pos=pron, type=excl		**pos=conj**	
Description	**Example**	**Description**	**Example**
pronoun	**che**/`pron`, `type=excl` sara' di noi!	conjunction	sapere **che**/`conj` verrai, mi tranquillizza

pos=det, type=excl		**pos=adv**	
Description	**Example**	**Description**	**Example**
determiner	**quanto**/`det`, `type=excl` sgomento velava la sua voce!	adverb	strillava **quanto**/`adv` poteva

7.5 Feature `pers`

In Italian, only `possessive` determiners are inflected according to the feature `person`, which has the values `1, 2, 3`.

7.5.1 Value `1`

pers=1	
Description	**Examples**
Possessive determiner	e' **mio**/1 padre
	e' **nostro**/1 figlio

7.5.2 Value `2`

pers=2	
Description	**Examples**
Possessive determiner	e' **tuo**/2 figlio
	e' **vostro**/2 figlio

7.5.3 Value `3`

pers=3	
Description	**Examples**
Possessive determiner	e' **suo**/3 figlio
	e' il **loro**/3 bambino

7.6 Feature gend

The feature `gender` applies to all the Types of determiners.

7.6.1 Value m

gend=m	
Description	**Examples**
possessive determiner	il **mio**/`m` bambino e' buono
	i **suoi**/`m` bambini sono buoni
demonstrative determiner	**quel**/`m` bambino e' buono
	questi/`m` bambini sono buoni
indefinite determiner	**alcuni**/`m` bambini sono buoni
	molti/`m` uomini sanno la verita'
relative determiner	avra' **quanto**/`m` denaro vuole
interrogative determiner	**quanto**/`m` denaro vuoi?
	quanti/`m` libri prendi?
exclamative determiner	**quanto**/`m` sgomento!

7.6.2 Value f

The value `feminine` applies to all determiners.

gend=f	
Description	**Examples**
possessive determiner	**mia**/`f` figlia e' buona
	le **sue**/`f` figlie sono buone
demonstrative determiner	**quella**/`f` bambina e' buona
	queste/`f` bambine sono buone
indefinite determiner	**molte**/`f` donne lo sanno
	nessuna/`f` madre testimoniera'
relative determiner	la **cui**/`f` figlia ami
interrogative determiner	**quanta**/`f` pasta vuoi?
	quante/`f` parole sai?
exclamative determiner	**quante**/`f` storie inventi!

7.6.3 Value `c`

The value `common` applies to all determiners, except the demonstratives.

`gend=c`	
Description	**Examples**
possessive determiner	il **loro**/`c` e' il migliore
indefinite determiner	**tali**/`c` uomini e tali donne
relative deteminer	l'autore, i **cui**/`c` libri ho letto,
interrogative determiner	**quale**/`c` libro vuoi?
	che/`c` storie inventi?
exclamative determiner	**quali**/`c` storie inventi!

7.7 Feature `numb`

The feature `number` applies to all the determiners.

7.7.1 Value `sg`

The value `singular` apply to all `type`-values of `determiners`.

numb=sg	
Description	**Examples**
possessive determiner	il **mio**/`sg` bambino e' buono
	la **tua**/`sg` bambina e' buona
demonstrative determiner	**quella**/`sg` storia e' incredibile
	questa/`sg` satira non mi piace
indefinite determiner	**qualunque**/`sg` libro tu legga
	nessuna/`sg` testimonianza sara' valida
	molti nemici, **molto**/`sg` onore
relative determiner	guadagna **quanto**/`sg` denaro vuole
interrogative determiner	**quanto**/`sg` denaro spendi?
	quale/`sg` giornale vuoi?
exclamative determiner	**quale**/`sg` sorte ti tocchera'!

7.7.2 Value `pl`

The value `plural` apply to all `type`-values of `determiners`.

numb=pl	
Description	**Examples**
possessive determiner	i **miei**/`pl` alberi sono in fiore
	le **tue**/`pl` bambine sono buone
demonstrative determiner	**quelle**/`pl` storie sono incredibili
	queste/`pl` serate mi stancano
indefinite determiner	**taluni**/`pl` uomini mi annoiano
	molte/`pl` persone mi danno fastidio
	molti/`pl` nemici, molto onore
relative determiner	guadagna **quanti**/`pl` soldi vuole
interrogative determiner	**quanti**/`pl` anni hai?
	quali/`pl` libri leggi?
exclamative determiner	**quali**/`pl` vergogne!

7.7.3 Value `n`

The value `invariant` apply to all the `type`-values of determiners, except the demonstratives.

`numb=n`	
D e s c r i p t i o n	**E x a m p l e s**
possessive determiner	i **loro**/`n` insegnanti e il loro preside
indefinite determiner	l' **altrui**/`n` fama e gli altrui onori
relative determiner	i **cui**/`n` onori e la cui fama
interrogative determiner	**che**/`n` storie inventi?
	che/`n` faccenda e' questa?
exclamative determiner	**che**/`n` vergogna!
	che/`n` falsita' la sua!

8 Article

8.1 Table in the Morphosyntax document

ARTICLE	**Type**	**Gend**	**Numb**	Case
EAG-L0	**ARTICLE**			
EAG-L1	**def** **indf**	$\mathbf{m}_1$ $\mathbf{f}_1$	$\mathbf{sg}_1$ $\mathbf{pl}_1$	
EAG-L2a				nom gen dat acc
EAG-L2b	Fr part	It $\mathbf{c}_{D1}$		

8.2 Type hierarchy table

A R T I C L E		
Feature	**Values**	
pos	art	
type	def	indf
numb gend	sg, pl m, f, c	sg m, f
Example:	il lo la l' le i gli le	uno un una un'

8.3 pos-value `article`

8.3.1 Central semantics of value `article`

The article is a PoS which combines and agrees with the noun, qualifying it in **determinative** (value `def`) and **inderterminative** way (value `indf`).

The determinative article combines with prepositions, giving rise to the so called "preposizioni articolate" (see below, under Prepositions).

Morphosyntactic criteria:

– The article has the **gender** and **number** marks and undergoes the agrement mechanism with the noun.
An apparent conflicting case in the number of the noun and its article is in crystalled expressions: **un** *due pezzi*, **la** *due ruote* (where the nouns *costume* is omitted in the first expression and *moto* in the second one).

Graphical criteria:

– *una* and *la* are elided before words beginning with vowel: *l'erba, un'amica.*

– *uno* and *lo* are elided before words beginning with vowel: *l'amico, un ambasciatore.*

– the graphical form *l'* **is homograph for the feminine and the masculine** (and can create problems in the recognition of the gender, when tagging: *l'insegnante* masc. or femm.?).

– *il*, *i* and *un* are used before words beginning with
- `simple consonant`, *i capi*, *il papa'*, *un siluro*, or
- `consonant other than` *s* `followed by` *l* `or` *r*`, i.e. liquid`: *il cloro*, *un trono*, *i Greci.*

– *lo*, *gli* and *uno* are used:
a) before words beginning with vowel (where *lo* and *uno* appear in the elided form *l'* and *un*): *l'oro, un eroe, gli Italiani.*
b) before semi-consonant,

1. elided before *-u*: *un uomo, l'uovo* and

2. not elided before *i*: *lo iato, uno iato.*

c) before word beginning with *s* plus consonant: *uno scatto, lo stivale, uno sciame, lo sci.*
d) before palatal *n, uno gnomo, lo gnu* and *z, lo zio, uno zero.*
e) before *x* and other consonants groups: *lo xilofono, uno psicologo, uno mnemonico, uno pneumococco.*
In some familiar uses *il* and *un* are attested in *il pneumatico, un pneumatico.*

8.3.2 Transcategorization phenomena with other pos-values

Confusion can be made between the values `article` and `pronoun`.

pos=pron		**pos=art**	
Description	**Example**	**Description**	**Example**
pronoun	e' **una**/`pron` che non si dimentica	article	**una**/`art` giornata particolare
	non **lo**/`pron` guardai neppure		guardai **lo**/`art` zio andare via

pos=art		**pos=num**	
Description	**Example**	**Description**	**Example**
article	hai detto **uno**/`art` sfondone	numeral	**uno**/`art` smeraldo e due diamanti

8.4 Feature `type`

Semantic criteria:

– **Differences between the definite and indefinite article**: Notwithstanding the definitions current, the `definite` article does not seem to designate a noun in a specific way and the `indefinite` one does not seem to designate a noun in a generic way. The difference rather seems to rely on the opposition between i) "class vs. member" and ii) "known vs. new" (Renzi, 1991):
i) - class: *il leone e' il re degli animali*
i) - member: *ho visto un leone allo zoo*

ii) - known: *devo portare fuori il cane*
ii) - new: *voglio comprarmi un cane*
.

8.4.1 Value `def`

`type=def`	
Description	**Examples**
definite	**il**/`art` cane, **lo**/`art` zio,
	la/`art` mamma, **l'**/`art` amico, **l'**/`art` amica,
	i/`art` sapienti, **gli**/`art` alleati, **le**/`art` arti

8.4.2 Value `indf`

`type=indf`	
Description	**Examples**
indefinite	**uno**/`art` scoglio, **un**/`art` amico,
	una/`art` partita, **un'**/`art` armatura

8.5 Feature `numb`

Articles agree in number to the noun they specify. The values `singular` and `plural` are pertinent to the class. Note that this last value does not apply in presence of the value `indf` (see below).

The value `invariant` shared by nouns and adjectives, which identifies an underspecification in number, is not pertinent to articles. The article specifies the number (but see the familiar and dialectal use *l'attenzioni*) and, for this reason, it can be used in context to solve the underspecification of nouns and adjectives: **le** *pari opportunita'*, **una** *pari opportunita'*.

8.5.1 Value `sg`

numb = sg	
Description	**Examples**
definite	**il**/sg cane, **lo**/sg zio,
	la/sg mamma, **l'**/sg amico, **l'**/sg amica
indefinite	**uno**/sg scoglio, **un**/sg amico,
	una/sg partita, **un'**/sg armatura

8.5.2 Value `pl`

numb = pl	
Description	**Examples**
definite	**i**/pl sapienti, **gli**/pl alleati, **le**/pl arti

8.6 Feature `gend`

Articles agree in gender to the noun they specify. The values `masculine` and `feminine` and `common` are pertinent to the class. Note that this last value does not apply in presence of the value `indf` (see below).

The value `common` can be seen as a multilabel whose semantics is a "disjunction" operation: in fact, the value `c` is a macro for `m | f`.
It is used, when tagging, for the graphical form *l'* elision of *lo* and *la* when the context is not sufficient to solve the underspecification, i.e. when the gender of the agreed noun is undecided: *l'insegnante*.

8.6.1 Value `m`

gend = m	
Description	**Examples**
definite	**il**/`m` cane, **lo**/`m` zio, **l'**/`m` amico,
	i/`m` cani, **gli**/`m` sguardi
indefinite	**uno**/`m` scoglio, **un**/`m` amico,

8.6.2 Value `f`

gend = f	
Description	**Examples**
definite	**la**/`f` mamma, **le**/`f` arti, **l'**/`f` amica,
indefinite	**una**/`f` partita, **un'**/`f` amica

8.6.3 Value `c`

gend = c	
Description	**Examples**
definite	**l'**/`c` insegnante, **l'**/`c` incapace

9 Adverb

9.1 Table in the Morphosyntax document

ADVERB	**Type**	**Degree**	Polarity	wh-Type
EAG-L0	**ADVERB**			
EAG-L1	**general** particle	**pos** **comp** **sup**		
EAG-L2a		ext-c ext-s		
EAG-L2b	En degr Fr ne Fr pas Du conj Du pron Du sep1 Du sep2		En-Sp wh En-Sp no-w	En-Sp int En-Sp rel

9.2 Type hierarchy table

A D V E R B			
Feature	**Values**		
pos	adv		
type	gen		
degr	pos	comp	sup
Example:	bene, fortemente	meglio	benissimo, fortissimamente

9.3 pos-value adverb

9.3.1 Central semantics of value adverb

The adverb (traditionally) modifies the verb but it also has the function of modifiers of other PoS, e.g. adjectives *molto magro, molto presto.*

It has morphological features not very common to other PoS.

Morphological features:

The following classes can be individuated:

– simple: *bene, male*;
– compound: *infatti (in+fatti), perfino (per+fine)*;
– derived, *–mente*: *fortemente, grandemente.*

Syntactic features:

– They can be subdivided into two classes:

1) Predicatives adverbs: they are internal to the predicate, i.e. modify syntactically the verb and can be semantically subdivided into the following classes:

pos=adv	
D e s c r i p t i o n	**E x a m p l e s**
time	**domani**/adv , **poi**/adv
place	**vicino**/adv , **lontano**/adv
manner	**fortemente**/adv , **grandemente**/adv
negation	**non**/adv
quantity	**molto**/adv , **poco**/adv

2) Phrasal adverbs: they are external to the predicate, i.e. the are connectives between sentences (very similar to conjunctions).

pos=adv	
D e s c r i p t i o n	**E x a m p l e s**
modals	**certamente**/adv
evaluatives	**ovviamente**/adv
enunciatives	**francamente**/adv

– Syntactically the adverb does not govern a complement: ** Sono felicemente di questa cosa.*

“Position criteria”:

– Its preferred collocation is **after** the verb, *lo vedro' certamente*, and **before** the adjective *e' certamente bello.*

– Phrasal and predicative adverbs can also be found before the whole sentence, *probabilmente andremo al cinema, domani mi alzero' alle sette.*
– The position in the middle of the compound verb is also admitted: *aveva distrattamente riposto l'abito.*

9.3.2 Transcategorization phenomena with other pos-values

The major peculiarity (and “crux” for the tagging) is that adjectives can have the function of adverbs: *andare forte, parlare veloce.* This causes a lot of confusion phenomena (see below).

The following are the features in common between adjectives and adverbs:

– adjectives modify nouns, *uomo forte*; adverbs modify verbs, *correre forte.*
– adjectives have the degree, *buono/migliore/ottimo*; adverbs have the degree, *bene/meglio/benissimo.*
– both undergo alteration: *bene/benino/benone, buono, buonetto.*

The other significant transcategorizations are among adverb/conjunction/preposition (see below). The differences among these PoS are linked to syntactic structures:
– adposition (preposition): the argument is an NP;
– conjunction: the sentence introduced is in dependency relation with the governing predicate;
– adverb: it semantically modifies the whole sentence and the predicate in particular.

Conjunction: *Ti sentirai tranquillo,* **dopo** *aver sostenuto l'esame*
Preposition: *Ti sentirai tranquillo* **dopo** *l'esame*
Adverb: *Sostenuto l'esame,* **dopo** *ti sentirai tranquillo*

In some recent linguistic theories, all these elements go into the wider class of “connettivi” (connectives), which link various parts of text (Berretta 1984).

Confusions can be made between the values `adverb` and `noun`,
`adverb` and `adjective`,
`adverb` and `pronoun`,
`adverb` and `determiner`,
`adverb` and `conjunction`,
`adverb` and `adposition`.

pos=noun		pos=adv	
Description	**Example**	**Description**	**Example**
weekdays used as nouns	Il **sabato**/`noun` e' il giorno migliore	weekdays used adverbially	**sabato**/`adv`
degree adverbs inserted in NP	il **troppo**/`noun` stroppia	adverbs	ho dormito **troppo**/`adv`
	il **meno**/`noun` che tu possa fare		spendi **meno**/`adv` che puoi
place adverbs inserted in NP	non chiedermi il **dove**/`noun` e il quando	adverbs	**dove**/`adv` vai?
noun	fare il **bene**/`noun` degli altri	adverb	fai **bene**/`adv` i tuoi conti

pos=adj		pos=adv	
Description	**Example**	**Description**	**Example**
adjective	una macchina **veloce**/`adj`	adverb	la macchina correva **veloce**/`adv`
	un uomo **solo**/`adj`		**solo**/`adv` un uomo lo sa
	una donna **forte**/`adj`		quella donna parla **forte**/`adv`

pos=pron, type=indf		pos=adv	
Description	**Example**	**Description**	**Example**
pronoun	**niente**/`pron, type=indf` mi fara' cambiare	adverb	non vale **niente**/`adv`
	pochi/`pron` sanno la verita'		ho mangiato **poco**/`adv`

pos=pron, type=int		pos=adv	
Description	**Example**	**Description**	**Example**
pronoun	**quanto**/`pron, type=int` ne vuoi?	adverb	strillava **quanto**/`adv` poteva

pos=pron, type=excl		**pos=adv**	
Description	**Example**	**Description**	**Example**
pronoun	**quanto**/`pron, type=excl` pretendi!	adverb	strillava **quanto**/`adv` poteva

pos=det, type=int		**pos=adv**	
Description	**Example**	**Description**	**Example**
determiner	**quanto**/`det, type=int` denaro vuoi?	adverb	strillava **quanto**/`adv` poteva

pos=det, type=indf		**pos=adv**	
Description	**Example**	**Description**	**Example**
det indf	**poca**/`det, type=indf` gente sa la verita'	adverb	ho dormito **poco**/`adv`

pos=det, type=excl		**pos=adv**	
Description	**Example**	**Description**	**Example**
det excl	**quanto**/`det, type=excl` sgomento sul tuo volto!	adverb	strillava **quanto**/`adv` poteva

pos=adv		**pos=conj**	
Description	**Example**	**Description**	**Example**
adverb	sostenuto l'esame, **dopo**/`adv` ti sentirai tranquillo	conjunction	**dopo**/`conj` aver dato l'esame, ti sentirai meglio

pos=adv		**pos=adpos**	
Description	**Example**	**Description**	**Example**
adverb	sostenuto l'esame, **dopo**/`adv` ti sentirai tranquillo	adposition	**dopo**/`adpos` l'esame, ti sentirai meglio

10 Adposition

ADPOSITION	**Type**	**Form**	**Gend**	**Numb**	Case
EAG-L0	**ADPOSITION**				
EAG-L1	**preposition** postposition circumposition	**simple** **fused**	$\mathbf{m}_1$ $\mathbf{f}_1$ n	sg pl	
EAG-L2a					nom gen dat acc
EAG-L2b	Du 2nd-p Du sepadv		It $\mathbf{c}_{D1}$		

10.1 Type hierarchy table

A D P O S I T I O N		
Feature	**Values**	
pos	adp	
type	prep	
form	simple	fused
gend	–	m, f, c
numb	–	sg, pl
Example:	di a da in con su per tra fra	dello della dell' degli delle dei

10.2 pos-value `adposition`

10.2.1 Central semantics of value `adposition`

Within adpositions, in Italian only prepositions are used, that constitute a PoS used to express syntactic relationships between the phrase components.

Semantic features:

– Each preposition has its respective semantic features. However, its meaning can be specified on the basis of the relationships between the components of the NP (head + PP).

– specification: *desiderio* **di** *gloria*;
– place: *gita* **al** *mare, aereo* **da** *Parigi*;
– manner: *lavoro* **su** *commissione*;
– scope: *alimento* **per** *gatti*;
– adjunct: *panna* **con** *cialda*;
– reciprocity: *rapporti* **tra** *colleghi.*

Syntactic features:

– the preposition has a subordinating function: the governing component becomes the head and the syntagm – preposition + governed component – becomes the complement.

10.2.2 Transcategorization phenomena with other pos-values

Confusions can be made between the values `adposition` and `adverb`, `adposition` and `conjunction`, `adposition` and `noun` (only some cases).

pos=adv		**pos=adpos**	
Description	**Example**	**Description**	**Example**
adverb	sostenuto l'esame, **dopo**/`adv` ti sentirai tranquillo	adposition	**dopo**/`adpos` l'esame, ti sentirai meglio

pos=adp		**pos=conj**	
Description	**Example**	**Description**	**Example**
adposition	**dopo**/`adv` l'esame, ti prenderai un po' di vacanza	conjunction	**dopo**/`conj` aver dato l'esame, ti sentirai meglio

pos=adp		**pos=noun**	
Description	**Example**	**Description**	**Example**
adposition	non vorrei essere **nei**/`adp` tuoi panni	noun	sul suo volto erano presenti **nei**/`noun` molto carini
	ricordati di dar da mangiare **agli**/`adp` uccellini		il barattolo conteneva **agli**/`noun` profumati
	sembra il castello **dei**/`adp` fantasmi		la poesia narra le gesta di **dei**/`noun` ed eroi

10.3 Feature `form`

This feature encodes the syntactical possibility for the preposition of being `simple` or graphically `fused` with the article.

10.3.1 Value `simple`

Simple prepositions can subdivided into:

Proper:

`type=prep, form=simple`	
Description	**Examples**
Simple Prep.	**di**/`prep` , **a**/`prep` , **da**/`prep` , **in**/`prep` ,
	con/`prep` , **su**/`prep` , **per**/`prep` , **fra**/`prep`

Not-proper:

`type=prep, form=simple`	
Description	**Examples**
Not-proper Prep.	**sopra**/`prep` , **sotto**/`prep` , **davanti**/`prep` , **dietro**/`prep` ,
	dentro/`prep` , **fuori**/`prep` , **vicino**/`prep` , **lontano**/`prep`
	contro/`prep` , **lungo**/`prep` , **oltre**/`prep` , **verso**/`prep`
	vicino/`prep` , **mediante**/`prep` , **secondo**/`prep` , **senza**/`prep`

The improper prepositions listed above cause the most frequent confusion phenomena between categories.

10.3.2 Value `fused`

When the preposition meets the article, a synthetic form is graphically created, the so called “preposizione articolata”. The table below displays the various word-forms obtained by the prepositions plus the `masculine, feminine` and `invariant` and `singular` and `plural` inflected forms of articles.

Preposition	**Article**					
	sing			plur		
	il lo la (l')			*i gli le*		
a	al	allo (all')	alla (all')	ai	agli	alle
da	dal	dallo (dall')	dalla (dall')	dai	dagli	dalle
di	del	dello (dell')	della (dell')	dei	degli	delle
in	nel	nello (nell')	nella (nell')	nei	negli	nelle
su	sul	sullo (sull')	sulla (sull')	sui	sugli	sulle

10.4 Feature `numb`

The values `singular` and `plural` are pertinent to the class.

The value `invariant` shared by nouns and adjectives, which identifies an underspecification in number, is not pertinent to prepositions.

10.4.1 Value `sg`

`numb = sg`	
Description	**Examples**
fused prepositions	**al**/`sg` cane, **allo**/`sg` zio,
	alla/`sg` mamma, **all'**/`sg` amico, **all'**/`sg` amica

10.4.2 Value `pl`

`numb = pl`	
Description	**Examples**
fused prepositions	**dei**/`pl` sapienti, **degli**/`pl` alleati, **delle**/`pl` arti

10.5 Feature `gend`

Fused prepositions agree in gender to the noun they specify. The values `masculine` and `feminine` and `common`.

10.5.1 Value `m`

gend = m	
Description	**Examples**
fused prepositions	**al**/`m` cane, **allo**/`m` zio, **degli**/`m` zii,
	ai/`m` cani, **sugli**/`m` sguardi

10.5.2 Value `f`

gend = f	
Description	**Examples**
fused prepositions	**alla**/`f` mamma, **sulle**/`f` arti, **sulla**/`f` tavola
indefinite	**una**/`f` partita, **un'**/`f` amica

10.5.3 Value `c`

gend = c	
Description	**Examples**
definite	**all'**/`c` insegnante, **all'**/`c` amica, **all'**/`c` amico

11 Conjunction

11.1 Table in the Morphosyntax document

CONJUNCTION	**Type**	Coord-T	Subord-T	Iter	Sent.Intr
EAG-L0	**CONJUNCTION**				
EAG-L1	**coord** **subord**				
EAG-L2a			+infve compar +fin		
EAG-L2b		En simple En init En no-init Sp correl			

11.2 Type hierarchy table

C O N J U N C T I O N		
Feature	**Values**	
pos	conj	
type	coord	subord
Example:	e ma pero' tuttavia	perche' sebbene mentre quando come

11.3 pos-value `conjunction`

11.3.1 Central semantics of value `conjunction`

The conjunction constitutes an invariant PoS which relates syntactically two (or more) words of a sentence or two (or more) sentences.
Conjunctions belong to the particular class of textual connectives.

Formal criteria:

Conjunctions can be *simple* and *compound* and consituted by multiword expressions, which can be encoded as an unique entry in the lexicon:

`pos=conj`	
Description	**Examples**
simple	**e**/`conj` **ma**/`conj` **quindi**/`conj` **anche**/`conj`
compound	**neanche**/`conj` **nondimeno**/`conj` **oppure**/`conj` **anche**/`conj`
more than 1 w.	**dal momento che**/`conj` **per il fatto che**/`conj` **dato che**/`conj`

11.3.2 Transcategorization phenomena with other pos-values

Conjunctions constitute an open class: the same elements can be used as conjunctions, prepositions, adverbs (see also under adverbs and prepositions).

Conjunction: *Ti sentirai tranquillo, dopo aver sostenuto l'esame*
Adposition (Preposition): *Ti sentirai tranquillo dopo l'esame*
Adverb: *Sostenuto l'esame, dopo ti sentirai tranquillo*

– conjunction: the conjoined sentence is in dependency relation with the governing predicate;
– preposition: the argument is an NP;
– adverb: it semantically modifies the whole sentence and the predicate in particular.

Confusions can be made between the values `conjunction` and `noun`, `conjunction` and `adjective`, `conjunction` and `pronoun`, `conjunction` and `determiner`, `conjunction` and `adverb`, `conjunction` and `adposition`,

pos=noun		**pos=conj**	
Description	**Example**	**Description**	**Example**
conjunction inserted in a NP	con i **se**/`noun` e i ma	conjunction	non so **se**/`conj`, `type=subor` verro'
	con i se e i **ma**/`noun`		mangio, **ma**/`conj`, `type=coor` non ingrasso

pos=adj		**pos=conj**	
Description	**Example**	**Description**	**Example**
adjective	un uomo **solo**/`adj`	conjunction	ho telefonato, **solo**/`conj` non ti ho trovato

pos=pron, type=int		**pos=conj**	
Description	**Example**	**Description**	**Example**
pronoun	dimmi **che**/`pron`, `type=int` sara' di lui	conjunction	sapere **che**/`conj` verrai, mi tranquillizza

pos=pron, type=rel		**pos=conj**	
Description	**Example**	**Description**	**Example**
pronoun	il sapere, **che**/`pron`, `type=rel` tutti affascina,	conjunction	sapere **che**/`conj` verrai, mi tranquillizza
	lo redarguii, il **che**/`pron`, `type=rel` fu inutile		mi rallegro **che**/`conj` ti sia fatto vivo
	il tempo **che**/`pron`, `type=rel` corre via		hai piu' fortuna **che**/`conj` merito

pos=pron, type=excl		**pos=conj**	
Description	**Example**	**Description**	**Example**
pronoun	**che**/`pron`, `type=excl` sara' di noi!	conjunction	sapere **che**/`conj` verrai, mi tranquillizza

pos=det, type=int		**pos=conj**	
Description	**Example**	**Description**	**Example**
pronoun	dimmi **che**/`det`, `type=int` storia va raccontando	conjunction	sapere **che**/`conj` verrai, mi tranquillizza

pos=det, type=excl		**pos=conj**	
Description	**Example**	**Description**	**Example**
pronoun	**che**/`det`, `type=excl` fine faremo!	conjunction	sapere **che**/`conj` verrai, mi tranquillizza

pos=adv		**pos=conj**	
Description	**Example**	**Description**	**Example**
adverb	sostenuto l'esame, **dopo**/`adv` ti sentirai tranquillo	conjunction	**dopo**/`conj` aver dato l'esame, ti sentirai meglio

pos=conj		**pos=adpos**	
Description	**Example**	**Description**	**Example**
conjunction	**dopo**/`conj` aver sostenuto l'esame, ti riposerai	adposition	**dopo**/`adpos` l'esame, ti sentirai meglio

11.4 Feature `type`

11.4.1 Value `coord`

Syntactic criterium

– On the basis of the relationships that conjunctions establigh, they can be:
- **coordinatives**, relating two elements – sentences or words – which maintain their syntactic and semantic autonomy ("paratassi"), e.g. *Mario* **e** *Gianni, piove* **ma** *usciro' ugualmente.* The coordination between sentences requires two distinct predicates.

type=coord	
Description	**Examples**
coordinative	**e**/`coord` **ma**/`coord` **anche**/`coord`

11.4.2 Value `subord`

Syntactic criterium

– Conjunctions can be: - **subordinatives**, establishing a syntactic dependency between sentences ("ipotassi"): the governing sentence is autonomous, while the other(s) depends syntactically and semantically from the first one *non verro'* **perche'** *piove.*

type=subord	
Description	**Examples**
subordinative	**e**/`poiche'` **ma**/`affinche'` **se**/`subord`

12 Interjection

12.1 pos-value `interjection`

12.1.1 Central semantics of value `interjection`

Interjections are invariant phrasal units which express the semantics of a whole sentence, constituting a whole linguistic act. They make use of the holophrastic language and are used in the spoken language.

Semantic criterium:

– they express a reaction, an order, a request, a hesitation, a call.

Graphical criterium:

– if it appears at the end of the sentence, it is followed, for the most, by the exclamation mark or the question mark;

– if the interjection appears at the beginning of the sentence, the exclamation/question marks appear at the end.

Che c'e, **beh? Toh!** E' Maria.
Oh, *ora si' che la stanza e' pulita***!**
Beh, *che vuoi***?**

Interjections can be subdivided into:
– primary: they are characterized by the presence of the grapheme `h`, which, in Italian, appears in final position *ah, eh, beh* or in the core of the word *ahi, uhm*.

– secundary: they constitute an open class, since members of other PoS can be used as interjections, causing a lot of confusion phenomena (see below):
`noun`: *cane!*
`adjective`: *bravo!*
`verb`: *senti!*
`adverb`: *dentro!*
`adposition`: *su!*

12.1.2 Transcategorization phenomena with other pos-values

We present here, in tabular way, a sample of some of the most frequent transcategorization phenomena between `interjections` and other PoS. It is worth reminding here that the phenomenon involves a lot of members of the other categories, since, theoretically, each member of e.g. the noun category could be used as an interjection. The phenomenon, being impossible to control and not lexicalized but linked to the real usage in a (colloquial) context, cannot be encoded at lexical level: it can be solved at tagging level, taking into account some of the criteria listed above.

pos=noun		pos=intj	
Description	**Example**	**Description**	**Example**
noun	fu un **addio**/`noun` triste	interjection	**addio**/`!` intj
	ha un **coraggio**/`noun` ammirevole		**Coraggio**/`!` intj

pos=adj		pos=intj	
Description	**Example**	**Description**	**Example**
adjective	un **bravo**/`adj` ragazzo	interjection	**Bravo**/`!` intj

pos=adv		pos=intj	
Description	**Example**	**Description**	**Example**
adverb	entrare **dentro**/`adv`	interjection	**Dentro**/`!` intj

pos=adp		pos=intj	
Description	**Example**	**Description**	**Example**
adposition	mettilo **su**/`adp` quel tavolo	interjection	**Su**/`!` intj

pos=verb		pos=intj	
Description	**Example**	**Description**	**Example**
verb	**senti**/`verb` le parole del professore?	interjection	Senti **senti**/`!` intj

13 Numeral

13.1 Table in the Morphosyntax document

NUMERAL	**Type**	**Gender**	**Number**	Case	Function
EAG-L0	**NUMERAL**				
EAG-L1	**cardin** **ordin**	$\mathbf{m}_1$ $\mathbf{f}_1$ n	$\mathbf{sg}_1$ $\mathbf{pl}_1$		
EAG-L2a					
EAG-L2b	Du quantif denomin	It $\mathbf{c}_{D1}$	It $\mathbf{n}_{D1}$	Gr nom Gr gen Gr dat Gr acc Gr voc Gr indc	Pron Det Adj

13.2 Type hierarchy table

N U M E R A L		
Feature	**Values**	
type	card	ord
numb	n	sg, pl
gend	m, f, c	m, f
Example:	uno due cento mille	primo prima primi prime

13.3 pos-value `numeral`

13.3.1 Central semantics of values `numeral`

The class of `numeral` can pose classification problems, since numerals can be categorized as members of other categories, i.e. as
– adjectives *le* `sette` *meraviglie, il* `primo` *figlio*;
– nouns *e' uscito il* `sette` *a Napoli*;
– pronouns `entrambi` *tacevano.*

The **semantic criterion** can be a means to recognize them:

– they indicate numerical quantities and can be subdivided into cardinals and ordinals.

13.3.2 Transcategorization phenomena with other pos-values

Confusions can be made between the values `numeral` and `noun`, `numeral` and `pronoun`, `numeral` and `article`.

pos=noun		**pos=num**	
Description	**Example**	**Description**	**Example**
noun	bottiglie da un **quarto**/`noun`	numeral	ho letto il **quarto**/`num` capitolo
	ho preso un bel **nove**/`noun` in latino		occorrono **nove**/`num` mesi

pos=pron		**pos=num**	
Description	**Example**	**Description**	**Example**
pronoun	venne **uno**/`pron` della polizia	numeral	leggete il capitolo **uno**/`num`

pos=art		**pos=num**	
Description	**Example**	**Description**	**Example**
article	hai detto **uno**/`art` sfondone	numeral	**uno**/`art` smeraldo e due diamanti

13.4 Feature `type`

Numerals are subdivided into the two groups `cardinal` and `ordinal`.

13.4.1 Value `card`

The value `cardinal` applies to numerals which indicate a precise numerical quantity and are invariable in gender and number, except *uno, una* which has the feminine.

`type=card`	
Description	**Examples**
cardinals	**uno**/`card` **due**/`card` **cento**/`card` **mille**/`card`

13.4.2 Value `ord`

The value `ordinal` applies to numerals which indicate the order in a numerical series: *primo, secondo, ...*

`type=ord`	
Description	**Examples**
ordinals	**primo**/`ord` **secondo**/`ord` **centesimo**/`ord` **millesimo**/`ord`

13.5 Feature gend

13.5.1 Value m

The value masculine applies to ordinals and to the cardinal numeral *uno*.

gend=m	
Description	**Examples**
cardinals	e' uscito il numero **uno**/m
ordinals	il **settimo**/m della fila
	gli ultimi saranno i **primi**/m

13.5.2 Value f

The value feminine applies to ordinals and to the cardinal numeral *una*.

gend=f	
Description	**Examples**
cardinals	due libri e **una**/f matita
ordinals	la **settima**/m della fila
	la **seconda**/f volta

13.5.3 Value c

The value common applies by default to all cardinals.

gend=c	
Description	**Examples**
cardinals	e' uscito il numero **nove**/c
	ne voglio **cento**/c

13.6 Feature `numb`

13.6.1 Value `sg`

The value `singular` applies to ordinals and to the cardinal numeral *uno, una.*

numb=sg	
Description	**Examples**
cardinal	e' uscito il numero **uno**/`sg`
ordinals	il **settimo**/`sg` della fila
	la **prima**/`sg` donna

13.6.2 Value `pl`

The value `plural` applies to ordinals only. All the cardinals, but *uno*, are plural by default, but they are encoded as **invariant**.

numb=pl	
Description	**Examples**
ordinals	i **primi**/`pl` della classe
	le **seconde**/`pl` di ogni fila

13.6.3 Value `n`

All the cardinals, but *uno*, are plural by default, but they are encoded as **invariant**.

numb=n	
Description	**Examples**
cardinals	**due**/`n` libri e una matita
	cento/`n` volte

14 Residual

14.1 Table in the Morphosyntax document

RESIDUAL	**Type**	Gend	Numb	Function
EAG-L0	**RESIDUAL**			
EAG-L1	**foreign words** alphabetic symbols formulae achronyms **abbreviations** unclassified affixes shortcuts fused forms comp. forms	$\mathbf{m}_1$ $\mathbf{f}_1$ n	$\mathbf{s}_1$ $\mathbf{p}_1$	
EAG-L2a				
EAG-L2b		It $\mathbf{c}_{D1}$	It $\mathbf{n}_{D1}$	noun-c noun-p adj

14.2 Type hierarchy table

R E S I D U A L	
Feature	**Values**
type	foreign, abbreviation
numb	sg, pl, n
gend	m, f, c
funct	noun-c, noun-p, adj
Example:	akropolis, IBM, CEE, Kmh

14.3 pos-value `residual`

14.3.1 Central semantics of value `residual`

The class of residuals includes lexical expressions such as foreign words, abbreviations etc. which are typical of text and are useful to include in a lexicon expecially for tagging purposes.

14.4 Feature `type`

14.4.1 Value `frgn`

This value is used to encode foreign words which are used in our language and are not part in our lexicon *strasse, byte.*

Note that foreign words which have entered in the Italian common language and are included in traditional Italian dictionaries, e.g. *computer* are not recognized as foreign words, but encoded on the basis of their syntactic category.

type=frgn	
Description	**Examples**
foreign words	**strasse**/`frgn` **akropolis**/`frgn`

14.4.2 Value `abbr`

The value `abbreviation` encodes abbreviations and achronyms which are, hence, indistinguished between them, `Sisde, CEE, Kmh`.

type=abbr	
Description	**Examples**
abbreviations	**IBM**/`abbr` **CEE**/`abbr` **Kmh**/`abbr`

When tagging, depending on the level of detail one wants to reach, their syntactic category (function) and morphological features can be preferably manually provided (with the same rules and constraints described for the syntactic categories), since they are considered important for further NLP applications – e.g. they allow to control agreement –: IBM = XA@SFS

type=abbr	
Description	**Examples**
abbreviations	**IBM**/`resd & type=abbr & funct=noun-p & gend=f & numb=sg`

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