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# **Description of the Catalan and Spanish tag sets from CoNLL-2009 shared task** (Version 1.0, January 5, 2009)

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# 1. Parts of speech and associated features (tags in POS and FEAT columns)

## PoS tags

- **a** adjective
- c conjunction
- **d** determiner
- **f** punctuation mark
- i interjection
- n noun
- **p** pronoun
- r adverb
- s preposition
- v verb
- w date (behaves as a noun)
- z number (behaves either a determiner, a pronoun, or a noun)

#### PoS features:

Possible values<sup>1</sup> **Applies to** Feature m (masculine) gen (gender) a, d, n, p, s f (feminine) c (common) s (singular) num (number) a, d, n, p, s, v p (plural) c (common) postype negative R demonstrative d, p \*possessive interrogative exclamative indefinite relative numeral article N common proper main auxiliary semiauxiliary personal coordinating subordinating

<sup>1</sup> For attributes with possible values yes/no, "no" is the default value. If the attribute is not explicit, the default value is implied.

preposition s currency z percentage  person 1 (first person) d, p, v 2 (second person) 3 (third person)  mood indicative v subjunctive imperative infinitive gerund pastparticiple  tense present imperfect future past	
person  1 (first person) 2 (second person) 3 (third person)  mood  indicative subjunctive imperative infinitive gerund pastparticiple  tense  present imperfect future	
person  1 (first person) 2 (second person) 3 (third person)  mood  indicative subjunctive imperative infinitive gerund pastparticiple  tense  present imperfect future	
2 (second person) 3 (third person)  mood indicative v subjunctive imperative infinitive gerund pastparticiple  tense present v imperfect future	
mood indicative v subjunctive imperative infinitive gerund pastparticiple  tense present v imperfect future	
mood indicative subjunctive imperative infinitive gerund pastparticiple  tense present vimperfect future	
imperative infinitive gerund pastparticiple  tense  present imperfect future  v	
infinitive gerund pastparticiple  tense  present imperfect future  v	
gerund pastparticiple  tense present imperfect future  gerund v	
tense pastparticiple v imperfect future	
tense present v imperfect future	
imperfect future	
future	ŀ
past	
conditional	
possessornum s (singular) d, p (the ones v	
p (plural) value for attribu	
c (common) "postype" in the	ıs chart)
case <sup>2</sup> nominative p	
accusative	
dative	
oblique	
punct comma f	
period * superior	
*quotation colon	
semicolon	
hyphen	
slash	
revslash	
apostrophe	
mathsign	
*exclamationmark	
*questionmark	
*bracket	
*sqbracket	
*cubracket	
etc	
contracted yes s	
no	
<b>punctenclose</b> open <b>f</b> (the ones with	* in the
close value for attribu	
in this chart)	i

<sup>&</sup>lt;sup>2</sup> For this particular attribute, "nominative" is the default value. If the attribute is not explicit, the default value is implied.

# 2. Syntactic dependencies (tags in DEPREL column)

a adjective

c conjunction (from word level)

**d** determiner

**f** punctuation mark

n nounp pronounr adverb

s preposition (from word level)v verb (auxiliary or semi-auxiliary)

z number

conjcoordsubordinating conjunction (from syntactic node)coordinating conjunction (from syntactic node)

**gerundi** gerund

grup.a adjective groupgrup.adv adverb groupgrup.nom noun groupinfinitiu infinitive

inc inserted element

morfema.pronominal pronominal morpheme

morfema.verbal verbal morpheme

**neg** negation participle

preppreposition (from syntactic node)relatiurelative pronoun (from syntactic)

S clause

sa adjective phrase (depends of a verb)

**s.a** adjective phrase (does not depend of a verb)

sadvadverb phrasesentencesentence (ROOT)snnoun phrase

**sp** prepositional phrase

**spec** specifier

ao orational adjunct

**atr** attribute

cag agent complement

cc adjunctcd direct objectci indirect object

cpred predicative complement
 creg prepositional object
 et textual element
 impers impersonality mark

mod non-argumental verb modifier

**pass** passive mark

suj subject

#### 3. Semantic dependencies (tags in APRED columns)

APRED tags are split in two by a hyphen. The first part of the tag is compulsory, whereas the second part may be void.

The first part of the tag refers to arguments:

arg0 applies to the argumental complement closest to the verb, semantically
(typically, the subject)

**arg4** applies to the argumental complement farthest from the verb, semantically (typically, location-destination complements)

arg1, arg2 and arg3 are a gradation between those two edges: the higher the number, the further the complement, semantically (typically, arg1 would correlate to direct object, arg2 to indirect object and arg3 to location-origin complements)

argL applies to lexicalized complements

argM applies to non-argumental complements

The second part of the tag refers to thematic roles:

adv Non-specific complement

agt Agent

atr Attribute

ben Beneficiary

cau Cause

**des** Destination

**efi** Final state

ein Initial state

exp Experiencer

ext Extension

**fin** Finality

ins Instrument

loc Location

mnr Manner

ori Origin

pat Patient

src Source

tem Theme

tmp Time

#### 4. Predicates and Semantic classes (PRED column)

In PRED column one can find the predicate lemma and its semantic class (Lexical Semantic Structure, LSS) separated by a dot (e.g., *posicionar.a2*)

#### Verb semantic classes (LSS)

- a1: Transitive-causative
- a2: Transitive-agentive
- a31: Ditransitive-agentive-locative
- a32: Ditransitive-agentive-beneficiary
- **b1**: Unaccusative-motion
- **b2**: Unaccusative-state
- c1: Existence-state
- **c2**: Attributive-state
- c3: Scalar-state
- c4: Beneficiary-state
- d1: Agentive-inergative
- **d2**: Experiencer-inergative
- d3: Source-inergative
- "0": This tag has been assigned to all the adjectives/past-participles (a) with postype = qualificative (q), and posfunction = participle (p): 'aq---p' (e.g., aq0msp, aq0fsp, etc.). At this stage of the corpus development no specific LSS have been assigned to these adjective/past-participles, so we have assigned to all of them the dummy class "0". The form of the predicate is not the infinitive, but that of adjective/past-participle in its maculine singular variant: 'celebrat.0', 'situat.0', etc. There are 1,406 cases in Spanish and 3,171 cases for Catalan.
- "\_": In some coordinate structures where the verb has been elided we have taken as predicate the first word in the coordinated clause (it can have any PoS) and assigned the void semantic class "\_". There are 256 cases in Spanish corpus and 216 cases in Catalan corpus.

#### **General information about Verb Classes:**

a: accomplishments: [+dynamic], [+telic]

**b**: achievements: [-dynamic], [+telic]

c: states: [-dynamic], [-telic]

**d**: activities: [+dynamic], [-telic]