The inventory of linguistic relations used in the Copenhagen Dependency Treebanks

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Abstract

This manual describes the inventory of linguistic relations used in the Copenhagen Dependency Treebanks, a set of parallel treebanks for Danish, English, German, Italian, and Spanish annotated with respect to syntax, morphology, discourse, coreference, and translational equivalence. The manual is generated automatically from the CDT project's online relation spreadsheet.[1]

[1] http://spreadsheets.google.com/ccc?key=0ArjTKYTQS1lWcnNUWGJrX3lZTkxDc3QxYmlqWlRXQ1E&hl=en

Contents

Chapter 1

Introduction

This manual describes the relations used in the Copenhagen Dependency Treebanks. The relations are ordered in a hierarchy, where each relation may have zero or more immediate super types, and zero or more immediate subtypes. The relations are presented in detail in the following chapters, grouped by linguistic level and general relation type. Every time a relation is introduced, its name is written in the left margin, with an indication of its immediate super types and the row in the online CDT spreadsheet in which the relation was defined. An example is shown below.

relation
isa super
[12]

The notation in the left margin indicates that we now describe the relation relation; it has immediate super type super and is defined in row 12 in the spreadsheet. When describing a relation, we also lists its other properties, if relevant, including its:

- *long name*: we use short names in the annotation for brevity, but long names are sometimes more descriptive, so we provide these as an alias for the short relation name;
- *deprecated names*: when renaming relations, the old name is listed as a deprecated name for backwards compatibility, but it should be avoided in future annotation;
- *immediate subtypes*: the relation names that have been specified as the immediate subtypes of the relation;
- *related types*: lists the relations that are closely related to this relation, in some way or another, and which you might want to consult for clarification or additional information;
- *examples*: small annotated text examples that illustrate how the relation is used;

Chapter 2

Top-level relations: ANY

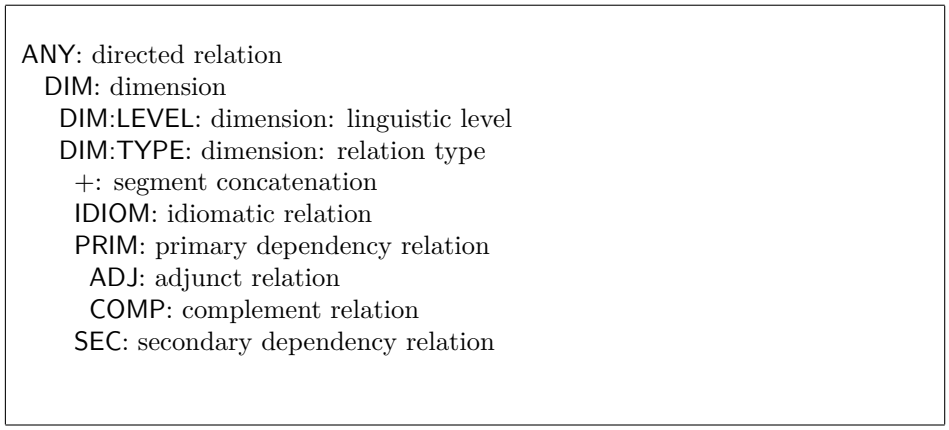


Figure 2.1: The relations matching ANY-SYNTAX-MORPHOLOGY-DISCOURSE-ANTECEDENT-SEMANTICS-RULE.

ANY [4]
Directed relation. An arbitrary directed relation between two tokens. The arrow goes from parent (head, governor, nucleus) to child (dependent, satellite).
Subtypes: DIM RULE.

DIM isa ANY [5]
Dimension (long: DIMENSION). A dimension in the hierarchy. Eg, linguistic level and relation type.
Subtypes: DIM:LEVEL DIM:TYPE.

DIM:LEVEL isa DIM [6]
Dimension: linguistic level. Dimension specifying the linguistic level of the relation. The classification of relations into linguistic levels is slightly arbitrary (there will be borderline cases where there is no single natural classification), and does not carry any deep linguistic significance. It is more a question about linguistic convention and research tradition than about any deep underlying difference between relations.
Subtypes: DISC MORPH SEM SYN.

DIM:TYPE isa DIM [7]
Dimension: relation type. Dimension specifying the type of the relation.
Subtypes: + ANTE IDIOM PRIM SEC.

+ isa DIM:TYPE [29]
Segment concatenation (long: CONCATENATION). A concatenation relation between two adjacent segments. This relation is used if an indecomposable lexeme has mistakenly been segmented into two segment. Lexicalized complex expressions are instead marked as IDIOM relations with the "#" suffix.

IDIOM *Idiomatic relation.* Idiomatic relation. Ie, relations between tokens in a complex lexicalized expression.
isa DIM:TYPE
[30]
Subtypes: PRIM "#".

PRIM *Primary dependency relation* (long: PRIMARY). A primary dependency relation. Ie, a relation which specifies the primary head (the governor) of a token (the dependent).
isa DIM:TYPE
[23]
Subtypes: ADJ COMP.

ADJ *Adjunct relation* (long: ADJUNCT). A primary adjunct relation.
isa PRIM
[25]
Subtypes: DISCFUNC DISCSEM SYNADJ.

COMP *Complement relation* (long: COMPLEMENT). A primary complement relation.
isa PRIM
[24]
Subtypes: "@" adverb SYNCOMP.

SEC *Secondary dependency relation* (long: SECONDARY). A secondary dependency relation. Eg, the secondary dependency relation in filler-gap constructions such as relatives without a relative pronoun (the relativized noun is a secondary dependent of the relative verb), raising and control constructions, and elliptic coordinations.
isa DIM:TYPE
[26]
Subtypes: "[" PRIM "]" "{" SEM "}".

Chapter 3

Syntactic relations: SYNTAX

SYN: syntax level

Figure 3.1: The relations matching SYNTAX-SYNCOMP-SYNADJ.

SYN
isa DIM:LEVEL
[16]

Syntax level (long: SYNTAX). A relation at the syntactic level. Ie, a relation between segments within a sentence, but between different lexical units.
Subtypes: SYNADJ SYNCOMP.

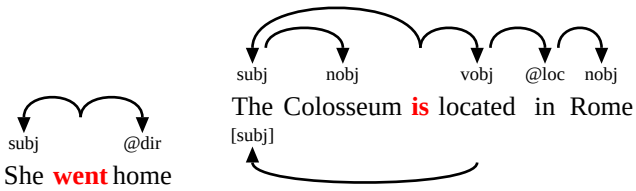
3.1 Complement relations: SYNCOMP

SYNCOMP
isa COMP SYN
[68]

Syntactic complement.
Subtypes: @space @time aobj avobj dobj fobj gobj iobj nobj numa numm part pobj possd possr pred qobj robj subj vobj.

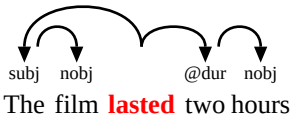
@space
isa SYNCOMP
[77]

Valency-bound location/direction adverbial.
Related types: dir loc.



@time
isa SYNCOMP
[93]

Valency-bound time adverbial. A valency bound time expression. Formerly analyzed as locative object, but we have decided to provide a general mechanism (@) for converting adverbial relations into valency-bound relations.
Related types: cont dur ext hab prec succ.



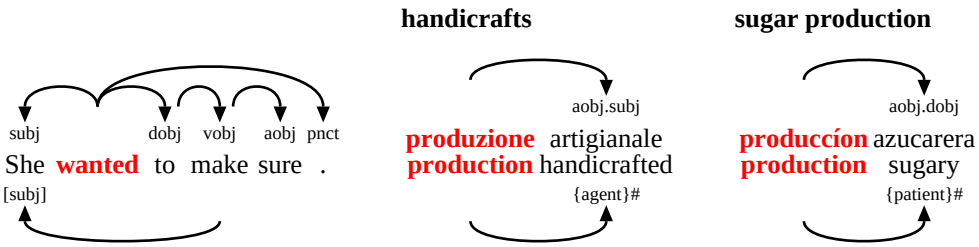
SYNCOMP: syntactic complement
- @space: valency-bound location/direction adverbial
- @time: valency-bound time adverbial
- aobj: adjectival object
- avobj: adverbial object
- dobj: direct object
- fobj: filler object
- gobj: genitive object
- iobj: indirect object
- nobj: nominal object
- numa: additive numeral complement
- numm: multiplicative numeral complement
- part: verbal particle
- pobj: prepositional object
- possd: possessed complement
- possr: possessor complement
- pred: predicative
  - predo: object predicative
  - preds: subject predicative
- qobj: quotational object
- robj: reflexive object
- subj: subject
  - expl: expletive subject
- vobj: verbal object

Figure 3.2: The relations matching SYNCOMP.

aobj
isa SYNCOMP
[84]

Adjectival object. If the adverbial object is part of a NP which nucleus is deverbal, the following annotation possibilities are available: aobj.subj{SEMROLE} aobj.dobj{SEMROLE} aobj.pobj{SEMROLE} aobj.iobj{SEMROLE} The relevant semantic roles in this context are agent, patient, recipient, experient, location.

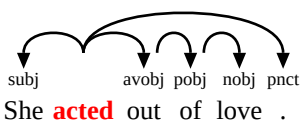
Related types: avobj.



avobj
isa SYNCOMP
[85]

Adverbial object.

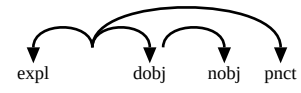
Related types: aobj part.

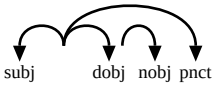


dobj
isa SYNCOMP
[73]

Direct object.

Related types: iobj robj.



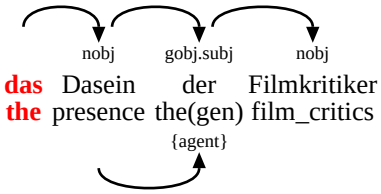


fobj isa SYNCOMP [86]
Filler object. NO LONGER IN USE; see gapping constructions.
Related types: GAP.

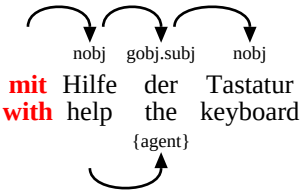
N/A

gobj isa SYNCOMP [75]
Genitive object. If the genitve object is part of a NP which nucleus is deverbal, the following annotation possibilities are available: gobj.subj{SEMROLE} gobj.dobj{SEMROLE} gobj.pobj{SEMROLE} gobj.iobj{SEMROLE} The relevant semantic roles in this context are agent, patient, recipient, experient, location.
Related types: SEMROLE attrg.

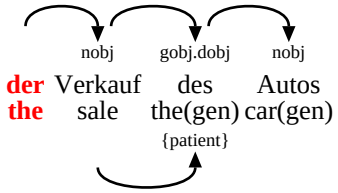
the presence of film critics



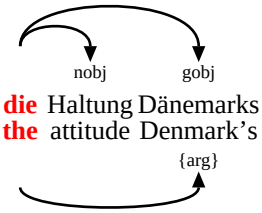
with help from the keyboard



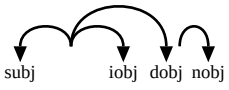
the sale of the car



Denmark's attitude

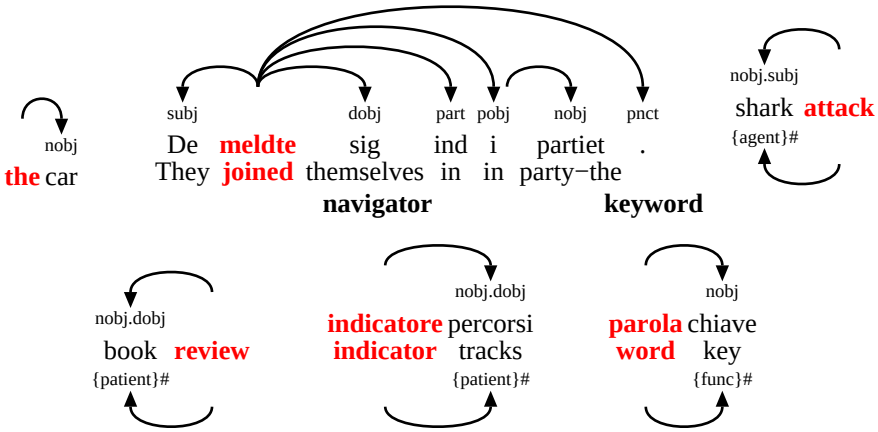


iobj isa SYNCOMP [76]
Indirect object.
Related types: dobj.

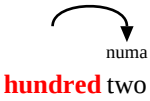


nobj isa SYNCOMP [83]
Nominal object. If the nominal object is part of a NP which nucleus is deverbal, the following annotation possibilities are available: nobj.subj{SEMROLE} nobj.dobj{SEMROLE} nobj.pobj{SEMROLE} nobj.iobj{SEMROLE} The relevant semantic roles in this context are agent, patient, recipient, experient, location.

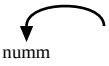
They joined the party.



numa *Additive numeral complement.*
isa SYNCOMP
[87]
Related types: numm.

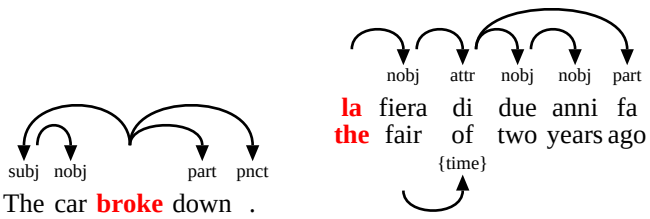


numm *Multiplicative numeral complement.*
isa SYNCOMP
[88]
Related types: numa.

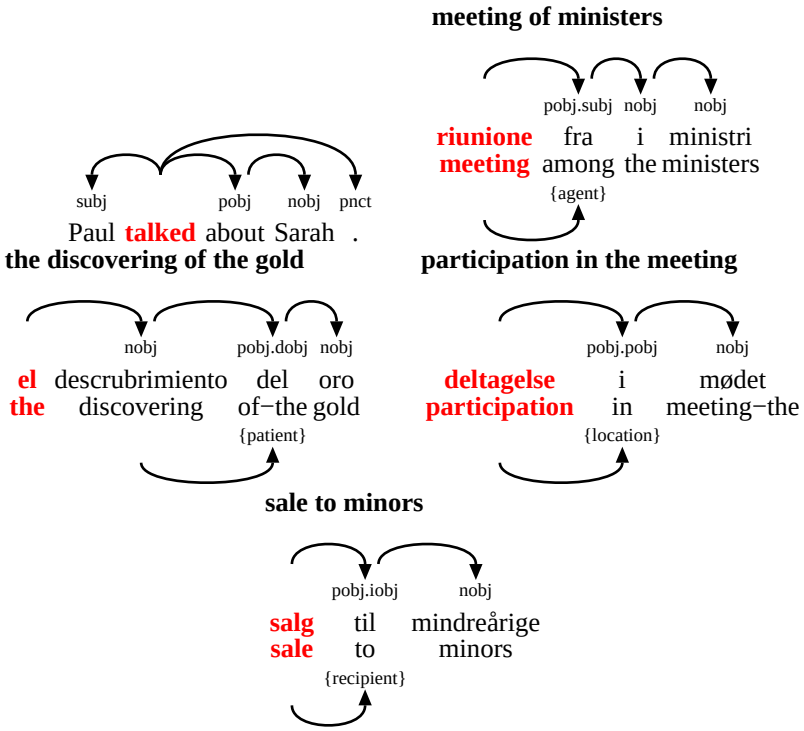


part *Verbal particle.* Verbal particle.
isa SYNCOMP
[89]
Related types: avobj.

the fair two years ago



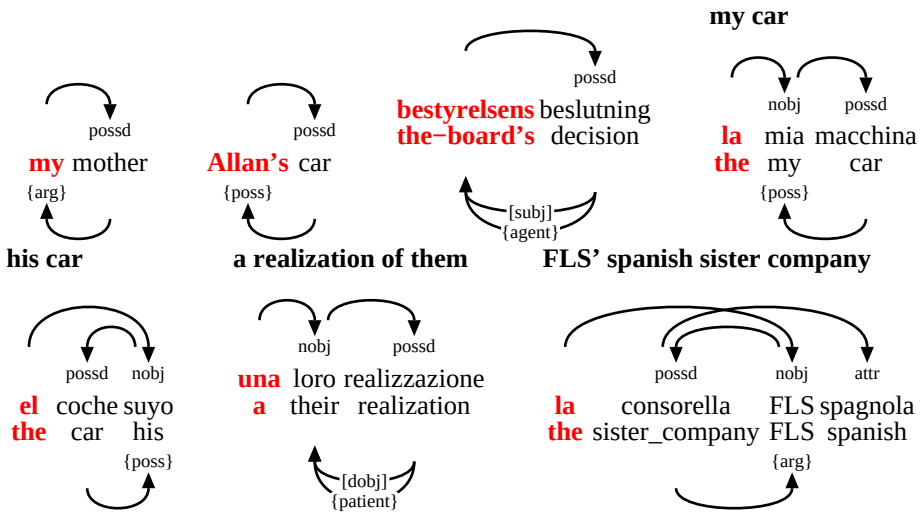
pobj *Prepositional object.* If the prepositional object is part of a NP which nucleus is deverbal, the following annotation possibilities are available: pobj.subj{SEMROLE} pobj.dobj{SEMROLE} pobj.pobj{SEMROLE} pobj.iobj{SEMROLE} The relevant semantic roles in this context are agent, patient, recipient, experient, location.
isa SYNCOMP
[74]
Related types: SEMROLE avobj.



possd isa SYNCOMP [90]

Possessed complement. The possessed complement in a possessive construction. Possession is understood in a syntactic sense as any construction with a clitic genitive marker, not necessarily as possession in a narrow semantic sense. A better name may be chosen for this relation in the future.

Related types: "{" "}" $PRIM SEMROLE poss possr.



possr isa SYNCOMP [91]

Possessor complement. NO LONGER IN USE

The possessor complement in a possessive construction. Possession is understood in a syntactic sense as any construction with a clitic genitive marker, not necessarily as possession in a narrow semantic sense. A better name may be chosen for this relation in the future.

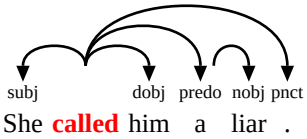
Related types: poss possd.

N/A

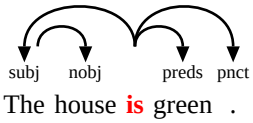
pred *Predicative.*
isa SYNCOMP Subtypes: predo preds.
[78] Related types: predo preds.

V->predicative, P->predicative

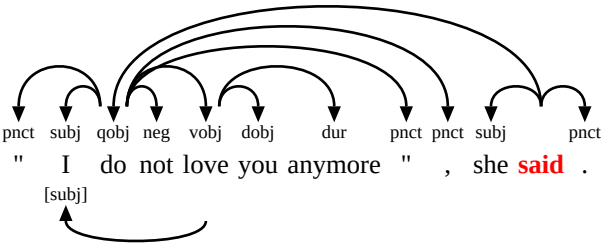
predo *Object predicative.*
isa pred Related types: preds.
[80]



preds *Subject predicative.*
isa pred Related types: predo.
[79]

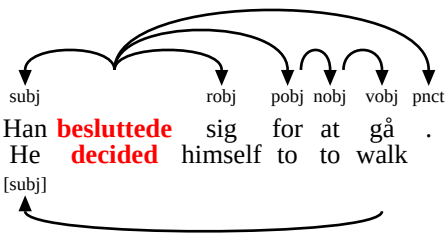


qobj *Quotational object.* A phrase or discourse segment functioning as directly quoted
isa SYNCOMP speech, typically by an attribution verb. Indirect speech is analyzed as "dobj" or
[92] "nobj".
Related types: xpl.

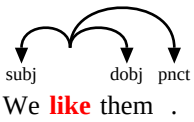


robj *Reflexive object.*
isa SYNCOMP Related types: dobj.
[82]

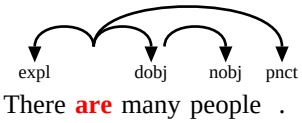
He decided to walk.



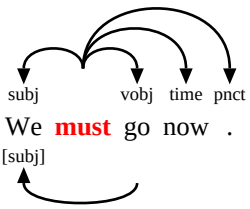
subj *Subject.* A subject relation.
isa SYNCOMP Subtypes: expl.
[71] Related types: expl.



expl *Expletive subject.*
isa subj Related types: subj.
[72]



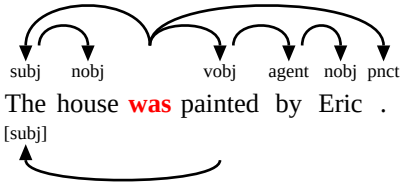
vobj *Verbal object.*
isa SYNCOMP Related types: "[" "]" $PRIM.
[81]



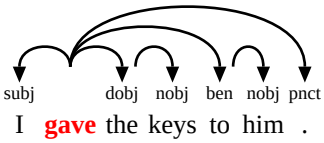
3.2 Adverbial adjunct relations: ADVERB

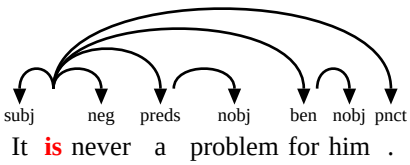
ADVERB *Adverbial* (deprecated other). V/N/P->adverbial
isa SYNADJ Subtypes: agent ben cause comp conc concom cond cons degr exem man neg other prg source space
[132] struct time.

agent *Agent adverbial.* The passivized agent in passives.
isa ADVERB
[170]



ben *Benefactive adverbial.* Free dative
isa ADVERB Related types: pobj.
[169]



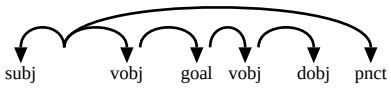


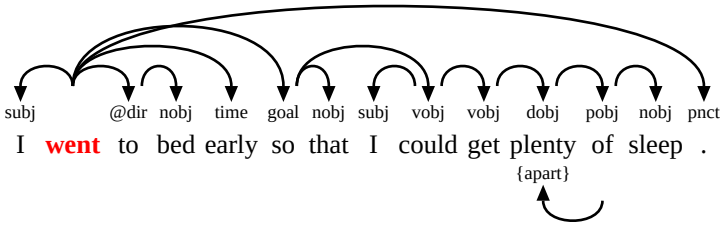
ADVERB: adverbial
- agent: agent adverbial
- ben: benefactive adverbial
- cause: causation adverbial
  - goal: goal adverbial
  - reas: reason adverbial
- comp: comparison adverbial
- conc: concession adverbial
- concom:
- cond: condition adverbial
- cons: consequence adverbial
- degr: degree adverbial
- exem: example adverbial
- man: manner adverbial
  - accom: companionship adverbial
  - inst: instrument adverbial
- neg: negation adverbial
- other: other adverbial
- prg: pragmatic adverbial
  - att: attitude adverbial
  - discmark: sentence-initial discourse marker
  - epi: epistemic adverbial
  - eval: evaluation adverbial
  - focal: focalizer adverbial
  - pcond: pragmatic condition adverbial
- source: source attribution adverbial
- space: space adverbial
  - dir: direction adverbial
  - loc: location adverbial
- struct: text-structuring or connective adverbial
  - add: additive adverbial
  - bg: background adverbial
  - contr: contrast adverbial
  - elab: elaboration advebial
- time: time adverbial
  - cont: contemporaneity adverbial
  - dur: duration adverbial
  - ext: extent/frequency adverbial
  - hab: habituality adverb
  - prec: precedence adverbial
  - succ: succession adverbial

Figure 3.3: The relations matching ADVERB.

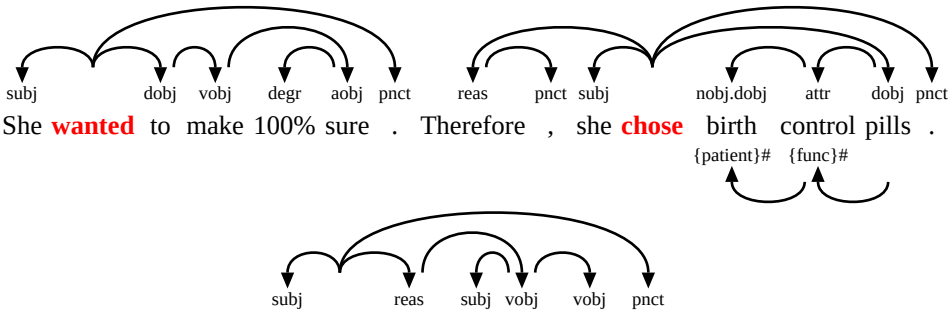
cause *Causation adverbial*. Causation adverbial. Describes why the event occurred.
isa ADVERB [158]
Subtypes: goal reas.

goal *Goal adverbial*. Describes the intended goal of the event/action.
isa cause [159]
Related types: reas.

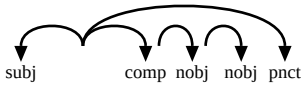




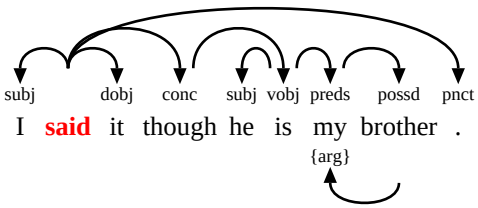
reas *Reason adverbial*. Describes the cause of the event/action.
isa cause Related types: goal.
[160]



comp *Comparison adverbial* (deprecated compare). Comparison
isa ADVERB
[164]

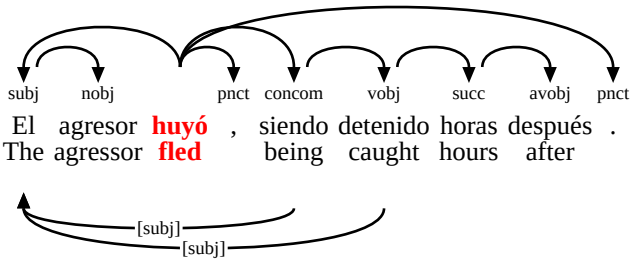


conc *Concession adverbial*. Describes the concession of the event/action.
isa ADVERB
[163]

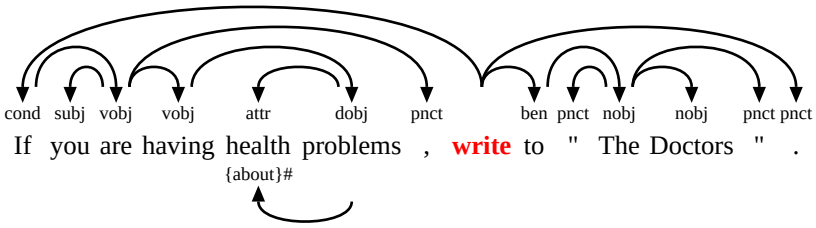


concom . Gerunds in Romance
isa ADVERB Related types: vobj.
[167]

The agressor fled and/but got caught hours later.

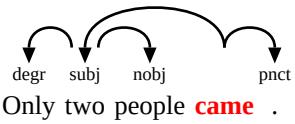


cond isa ADVERB [162]
Condition adverbial. Describes the condition of the event/action.
Related types: pcond.

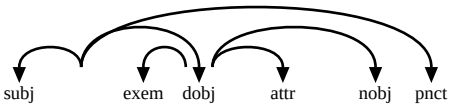


cons isa ADVERB [161]
Consequence adverbial. Describes the consequence of the event/action.
Related types: xtop.

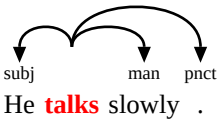
degr isa ADVERB [168]
Degree adverbial. Modifies the object or verbal by degree
Related types: focal.



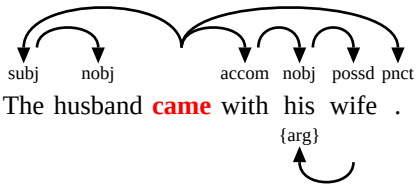
exem isa ADVERB [166]
Example adverbial (deprecated ex). Exemplification; subordinated the object which is added to a list.



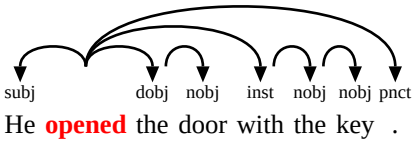
man isa ADVERB [155]
Manner adverbial. The way things are done
Subtypes: accom inst.
Related types: fpredo.



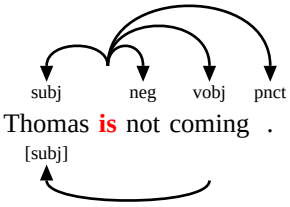
accom *Companionship adverbial* (deprecated comp). Companionship
isa man
[156]
Related types: man.



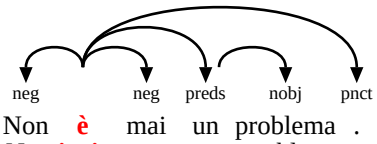
inst *Instrument adverbial*. Instrument/means
isa man
[157]
Related types: man.



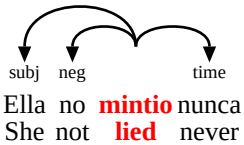
neg *Negation adverbial*. Negation of a verbal
isa ADVERB
[171]



It's never a problem.



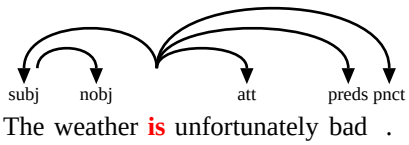
She never lied



other *Other adverbial*.
isa ADVERB
[172]

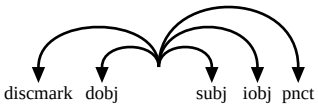
prg *Pragmatic adverbial*. Sentence level.
isa ADVERB
[133]
Subtypes: att discmark epi eval focal pcond.

att *Attitude adverbial*. Regarding attitude
isa prg
[137]
Related types: epi eval.

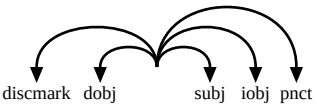


discmark *Sentence-initial discourse marker*. Discourse marker
isa prg
[139]
Related types: coord.

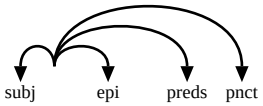
And I'm telling you...



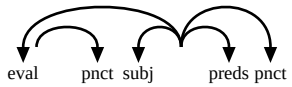
But I'm telling you...



epi *Epistemic adverbial.* Regarding the level of truth in the expression
isa prg
[136]
Related types: att eval.

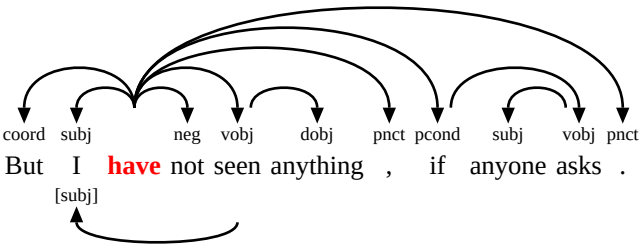


eval *Evaluation adverbial.* Evaluating adverbials
isa prg
[138]
Related types: att epi.

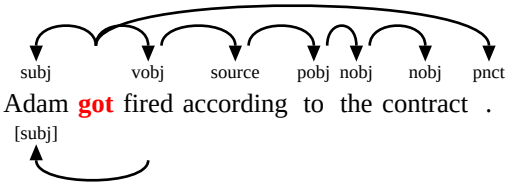


focal *Focalizer adverbial.* Focalization of a noun
isa prg
[134]
Related types: degr.

pcond *Pragmatic condition adverbial* (deprecated prgcond). Pragmatic condition
isa prg
[135]
Related types: cond.

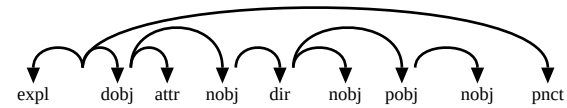


source *Source attribution adverbial.* Reference/source
isa ADVERB
[165]

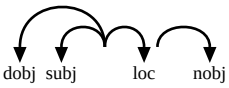


space *Space adverbial.* Space adverbials
isa ADVERB Subtypes: dir loc.
[152]

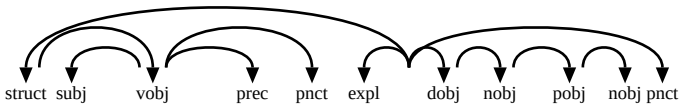
dir *Direction adverbial.* Movement from one place to another; direction
isa space Related types: loc.
[154]



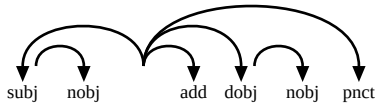
loc *Location adverbial.* Location
isa space Related types: dir.
[153]



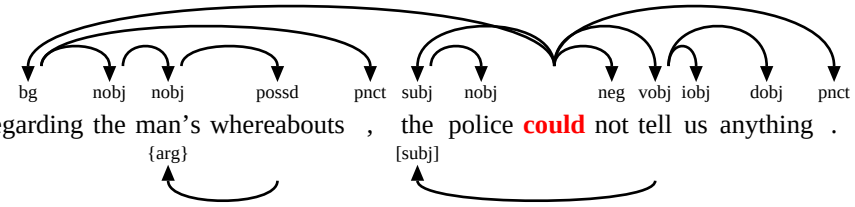
struct *Text-structuring or connective adverbial.* Connectives and text structuring adverbials
isa ADVERB Subtypes: add bg contr elab.
[140] Related types: bg contr.



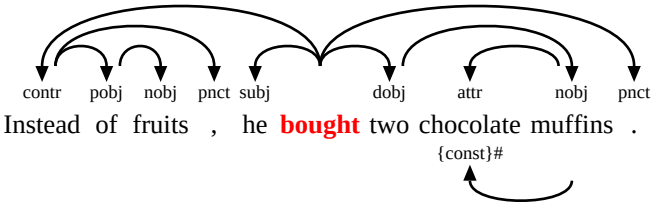
add *Additive adverbial.* Additive information
isa struct
[144]



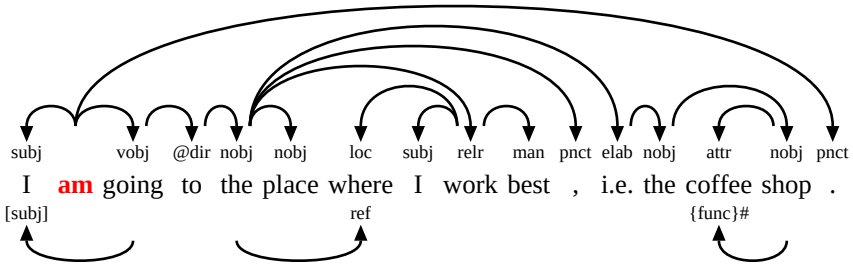
bg *Background adverbial.* Background information
isa struct Related types: struct.
[141]



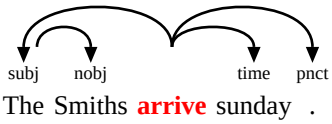
contr *Contrast adverbial.* Opposition
isa struct Related types: struct.
[142]



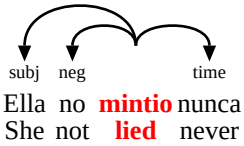
elab *Elaboration advebial.* More detailed description
isa struct
[143]



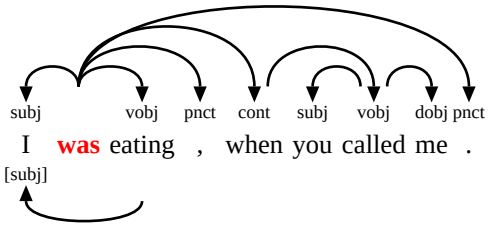
time *Time adverbial.* Time relating adverbials
isa ADVERB Subtypes: cont dur ext hab prec succ.
[145]



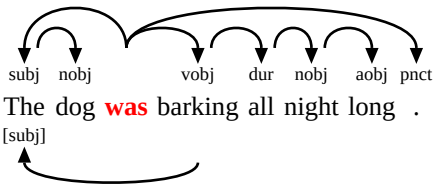
She never lied



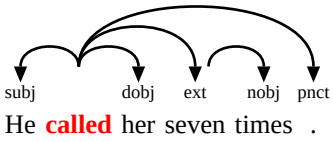
cont *Contemporaneity adverbial.* Contemporaneity
isa time Related types: time.
[149]



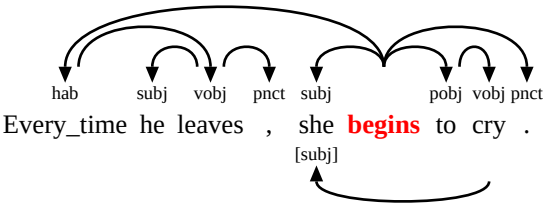
dur *Duration adverbial.* Duration
isa time Related types: ext hab.
[146]



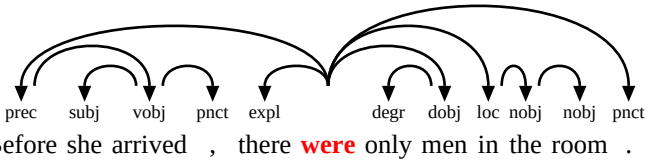
ext *Extent/frequency adverbial* (deprecated freq). Frequency; extention
isa time Related types: dur hab.
[151]



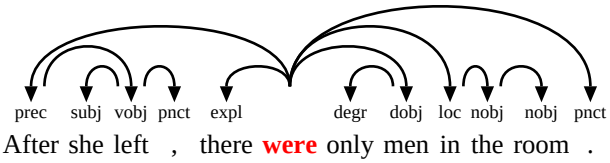
hab *Habituality adverb.* Habitual; repeated habit
isa time Related types: dur ext.
[150]



prec *Precedence adverbial.* Precedence
isa time
[147]



succ *Succession adverbial.* Succesion
isa time
[148]



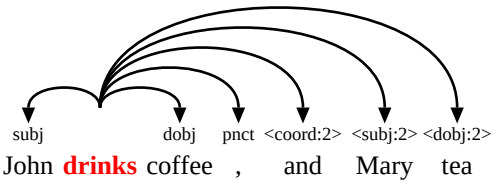
3.3 Other adjunct relations: SYNADJ

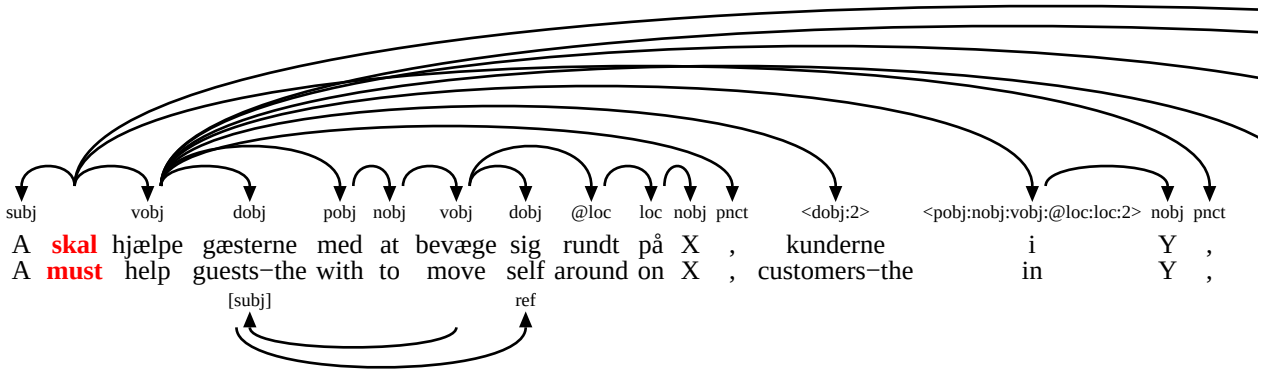
SYNADJ *Syntactic adjunct.*
isa ADJ SYN Subtypes: ADVERB GAP app attr attrg conj coord correl fpred name pnct rel voc xtop.
[69]

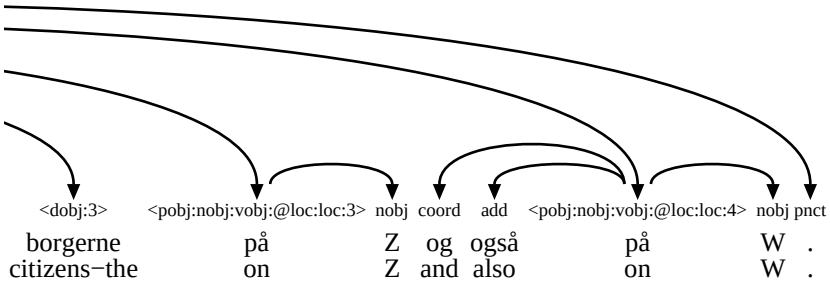
GAP *Gapping dependent* (long: GAPPING). A relation between a gapping dependent in a
isa SYNADJ secondary conjunct and the head of the first conjunct. In gapping coordinations, the
[27] secondary conjuncts have an elided head, so the remaining material in the secondary conjuncts is instead analyzed as gapping dependents of the head of the first conjunct. In the final CDT annotation, the annotation of gapping dependents will eventually be used to insert a phonetically empty head for the gapped conjuncts, and the gapping dependents will be attached to this gapped head.
Subtypes: "<" PRIM ... ":" INTEGER ">".

SYNADJ: syntactic adjunct
  GAP: gapping dependent
    "<" PRIM ... ":" INTEGER ">": gapping dependent
  app: apposition
    appa: parenthetic apposition (comma)
      xpl: explication
    appr: restrictive apposition (no comma)
  attr: attributive
  attrg: genitive attributive
  conj: conjunct relation
  coord: coordinator relation
  correl: correlative coordinator relation
  fpred: free predicative
    fpredo: free direct-object predicative
    fpreds: free subject predicative
  name: part of name
    namef: first name
    namel: last name
    title: person title
  pnct: punctuation
  rel: relative clause
    relelab: elaborating relative clause
    relpa: parenthetic relative clause
    relr: restrictive relative clause
  voc: vocative
  xtop: external topic with resuming pronoun

Figure 3.4: The relations matching SYNADJ-ADVERB.

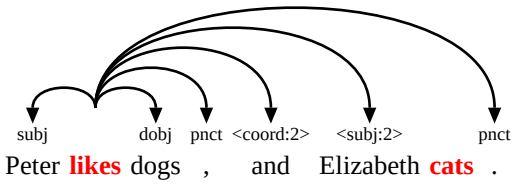






"<" PRIM ... ":" INTEGER ">"
isa GAP RULE
[354]

Gapping dependent. First conjunct->gapping dependent

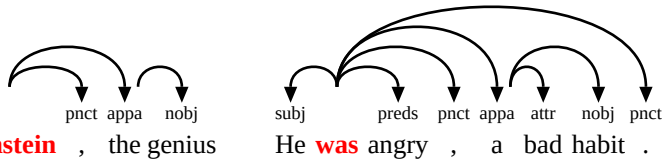


app
isa SYNADJ
[107]

Apposition.
Subtypes: appa appr.
Related types: appa appr.

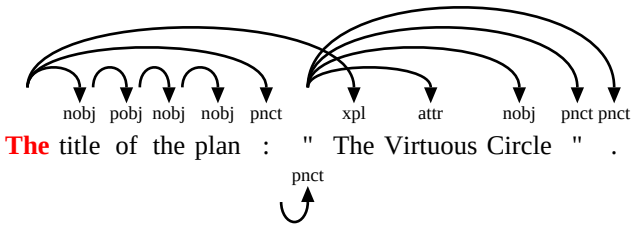
appa
isa app
[108]

Parenthetic apposition (comma).
Subtypes: xpl.
Related types: appr xpl.



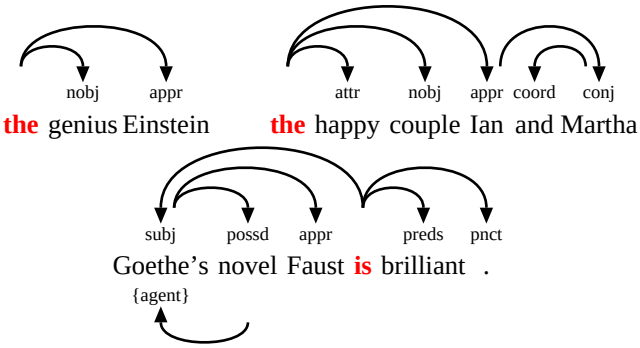
xpl
isa appa
[121]

Explication. Explication of an NP or VP.
Related types: qobj.



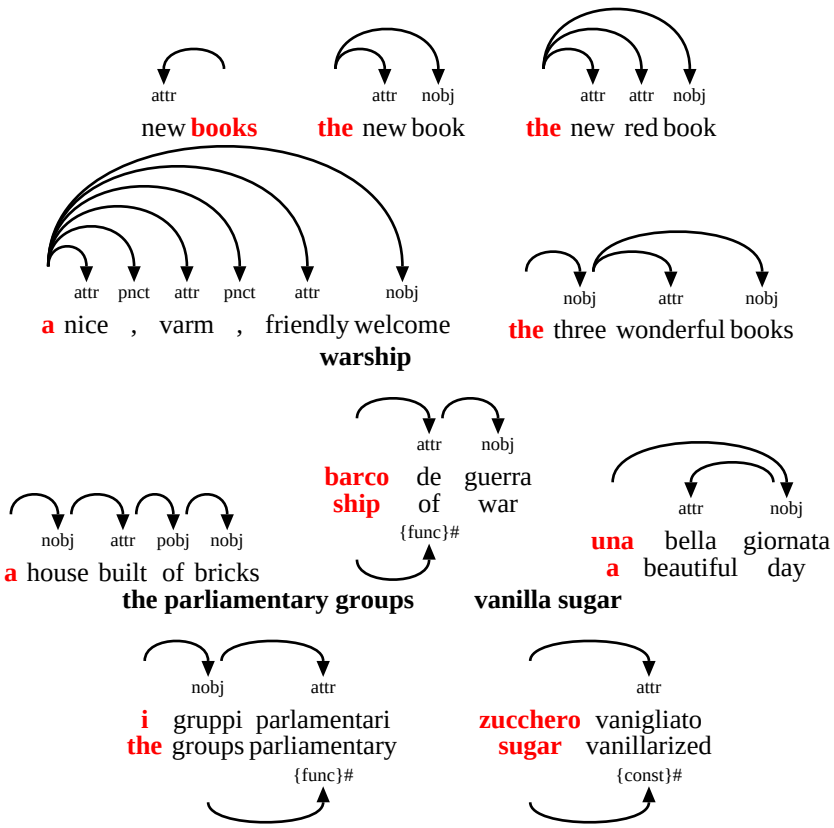
appr isa app [109] *Restrictive apposition (no comma).*

Related types: appa.



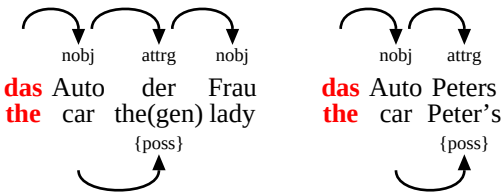
attr isa SYNADJ [105] *Attributive* (deprecated attrd attrr). In Germanic languages, adjectives modify the determiner; in Romance languages, adjectives modify the noun even if there is a determiner

Related types: SEMROLE attrg pobj.

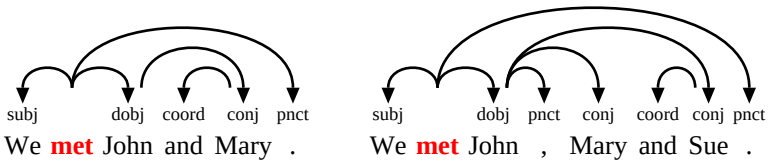


attrg *Genitive attributive.*
isa SYNADJ Related types: SEMROLE gobj.
[106]

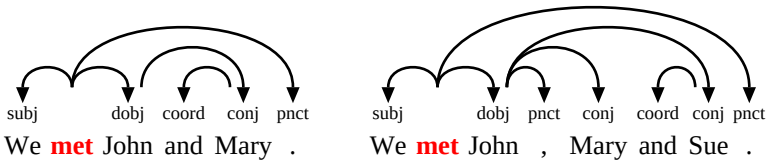
the lady's car **Peter's car**



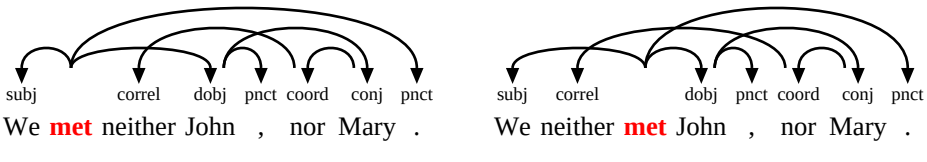
conj *Conjunct relation.*
isa SYNADJ Related types: coord correl.
[97]



coord *Coordinator relation.* A dependency relation between a coordinating conjunction and a secondary conjunct. The coordinator is analyzed as a dependent of the secondary conjunct. Secondary conjuncts are in turn analyzed as "conj"-dependents of the first conjunct.
isa SYNADJ Related types: conj correl discmark.
[98]



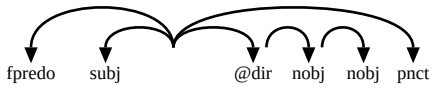
correl *Correlative coordinator relation.*
isa SYNADJ Related types: conj coord.
[99]



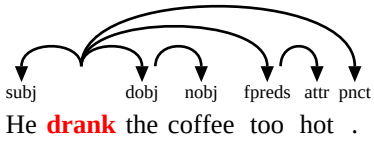
fpred *Free predicative.*
isa SYNADJ Subtypes: fpredo fpreds.
[102] Related types: fpredo fpreds.

V->free predicative

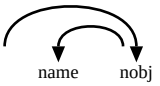
fpredo *Free direct-object predicative.*
isa fpred Related types: fpreds man.
[104]

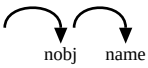


fpreds *Free subject predicative.*
isa fpred Related types: fpredo.
[103]



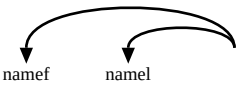
name *Part of name.* Part of a name.
isa SYNADJ Subtypes: namef namel title.
[115]



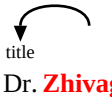


namef *First name.* A first name.
isa name Related types: namel title.
[116]

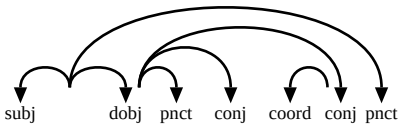
namel *Last name.* A second last name
isa name Related types: namef title.
[117]



title *Person title.* A title in a name. If the is the title is determinated by an article, eg. the director Smith, the title must be annotated as "nobj" and the name as "appr".
isa name Related types: namef namel.
[118]



pnct *Punctuation.*
isa SYNADJ
[100]



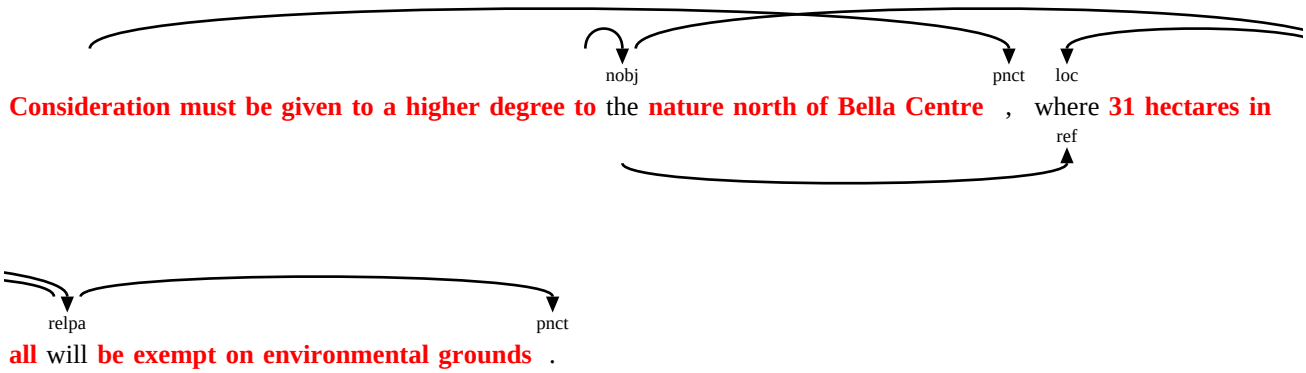
rel *Relative clause.*
isa SYNADJ Subtypes: relelab relpa relr.
[110] Related types: relelab relpa relr.

N–>V, V–>V

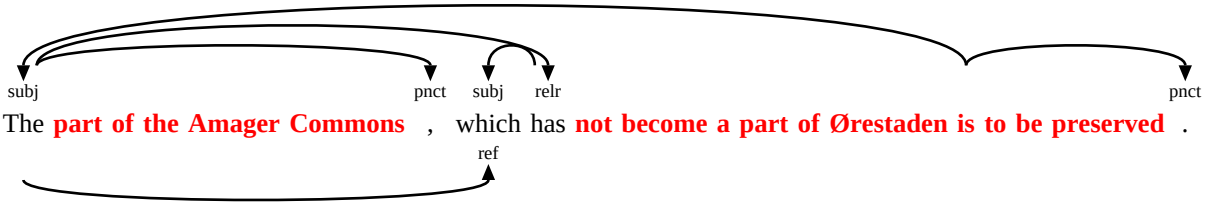
relelab *Elaborating relative clause.* Ledsætning med sætningsantecedent i hovedsætning; da: hvilket, it: il che, cosa che
isa rel
[113] Related types: relpa relr.

V–>V

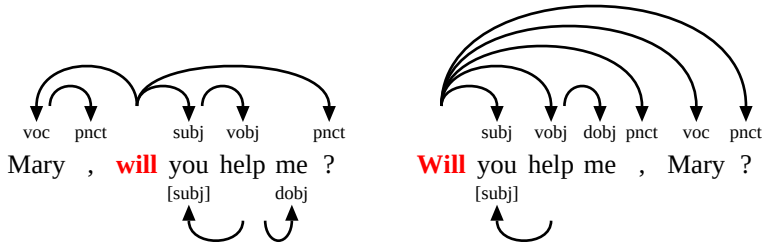
relpa *Parenthetic relative clause.*
isa rel Related types: relelab relr.
[112]



relr *Restrictive relative clause.*
isa rel Related types: relelab relpa.
[111]



voc *Vocative.* Vocative specification. The person to whom the statement is directed.
isa SYNADJ
[120]

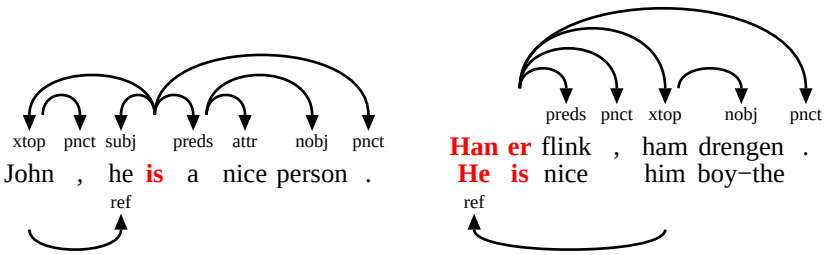


xtop
isa SYNADJ
[114]

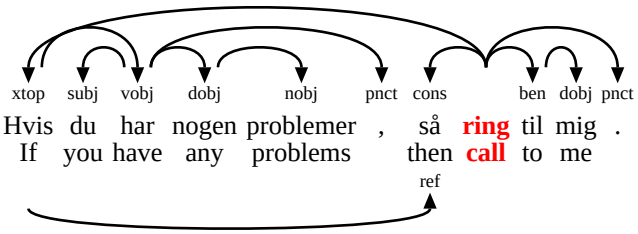
External topic with resuming pronoun. An external topic is a sentence-initial NP whose only function is to provide the antecedent for a pronoun later in the sentence. Eg in "John, he is a nice person". Here "John" is the "xtop" of "is", and "he" is the subject of "is".

Related types: cons ref.

He is nice, that boy.



If you are having any problems, call me.



Chapter 4

Morphological relations: MORPHOLOGY

MORPH: morphology level
  "§" PRIM: morphology specification

Figure 4.1: The relations matching MORPHOLOGY-MORPHCOMP-MORPHDERIV.

MORPH
isa DIM:LEVEL
[15]

Morphology level (long: MORPHOLOGY). A relation at the morphological level. Ie, a relation between segments within a word.
Subtypes: "§" PRIM MORPHCOMP MORPHDERIV.

"§" PRIM
isa MORPH RULE
[357]

Morphology specification.

4.1 Compositional relations: MORPHCOMP

MORPHCOMP: compositional semantic relations
  ABOUT: noun-noun compound (about)
  AGENT: noun-noun compound (agentive)
  CONST: noun-noun compound (constitutive)
  EVAL: noun-noun compound (evaluative)
  FUNC: noun-noun compound (function)
  ORIGIN: noun-noun compound (origin)
  OTHER: noun-noun compound (other)
  POS: noun-noun compound (position)
  POSS: noun-noun compound (possession)
  RESEM: noun-noun compound (resemblance)
  TIME:MC: noun-noun compound (time)

Figure 4.2: The relations matching MORPHCOMP.

MORPHCOMP *Compositional semantic relations.* A semantic relation is created between two (or more) elements which could potentially be used as stems. (A compound contains at least two roots.)
isa MORPH
[252]
Subtypes: ABOUT AGENT CONST EVAL FUNC ORIGIN OTHER POS POSS RESEM TIME:MC.

ABOUT *Noun-noun compound (about).* Non-head has an aboutness meaning wrt. head.
isa MORPHCOMP
[344]
(theme: skattelov 'tax law' = lov −[skat]te/ABOUT)

AGENT *Noun-noun compound (agentive).* Non-head has an agentive meaning wrt. head.
isa MORPHCOMP
[336]
(agent: politikontrol 'police control' = kontrol −politi/AGENT)

CONST *Noun-noun compound (constitutive).* Non-head has a constitutive meaning wrt. head.
isa MORPHCOMP
[335]
(constitutive: træbord 'wooden table' = bord −træ/CONST)

EVAL *Noun-noun compound (evaluative).* Non-head has an evaluative meaning wrt. head.
isa MORPHCOMP
[342]
coche de lujo 'luksusbil'

FUNC *Noun-noun compound (function).* Non-head has a functional meaning wrt. head.
isa MORPHCOMP
[338]
(function: krigsskib 'war ship' = skib −[krig]s/FUNC)

ORIGIN *Noun-noun compound (origin).* Non-head has a meaning of origin wrt. head.
isa MORPHCOMP
[337]
(origin: rørsukker 'cane sugar' = sukker −rør/ORIGIN)

OTHER *Noun-noun compound (other).* If in doubt about the meaning relation between head and non-head.
isa MORPHCOMP
[345]

POS *Noun-noun compound (position).* Non-head has a locative meaning wrt. head.
isa MORPHCOMP
[340]
(position: loftlampe 'ceiling lamp' = lampe −loft/POS)

POSS *Noun-noun compound (possession).* Non-head has a possessive meaning wrt. head.
isa MORPHCOMP
[339]
(possession: politibil = bil −politi/POSS

RESEM *Noun-noun compound (resemblance).* Denotations of head and non-head resemble each other.
isa MORPHCOMP
[343]
silla de tijeras 'saksestol' [klapstol], válvula de mariposa 'sommerfugleventil'

TIME:MC *Noun-noun compound (time).* Non-head has a temporal meaning wrt. head.
isa MORPHCOMP
[341]
(time: oktoberregn 'October rain' = regn −oktober/TIME)

4.2 Derivational relations: MORPHDERIV

MORPHDERIV: derivational semantic relations

Figure 4.3: The relations matching MORPHDERIV-PREFIX-SUFFIX.

MORPHDERIV *Derivational semantic relations.* A semantic relation is created between a base and an affix
isa MORPH
[251]
Subtypes: PREFIX SUFFIX.

4.2.1 Prefix relations: PREFIX

PREFIX: semantic relations appearing with prefixes
- ASPEC: aspectual dimension
  - ASPEC:cause: causation
  - ASPEC:iter: iteration
  - ASPEC:reflex: reflexivity
  - ASPEC:resul: result
  - ASPEC:rev: reversion
  - ASPEC:term: termination
- GRAD: graduation
  - GRAD:qual: quality
  - GRAD:size: size
- LOC: location
  - LOC:dir: direction
  - LOC:pos: position
  - LOC:proce: origin
- MOD: modification
  - MOD:cuant: quantification
  - MOD:man: manner
  - MOD:qual: qualification
- NEG: negation
  - NEG:oppo: opposition
  - NEG:priv: privation
- PRE:other: other prefix relation
- TIME§: time
- TRANS: transitivity

Figure 4.4: The relations matching PREFIX.

PREFIX *Semantic relations appearing with prefixes.* A semantic relation is created between a base and a prefix.
isa MORPHDERIV
[254]
Subtypes: ASPEC GRAD LOC MOD NEG PRE:other TIME§ TRANS.

ASPEC *Aspectual dimension.* Prefix conveys an asepctual dimension in a broad sense.
isa PREFIX
[271]
Subtypes: ASPEC:cause ASPEC:iter ASPEC:reflex ASPEC:resul ASPEC:rev ASPEC:term.

ASPEC:cause *Causation.* Prefix conveys causation.
isa ASPEC
[274]
(causative: acallar 'silence' = callar −a/ASPEC:cause)

ASPEC:iter *Iteration.* Prefix conveys iteration.
isa ASPEC
[273]
(iterative: redefine = define −re/ASPEC:iter)

ASPEC:reflex *Reflexivity.* Prefix conveys reflexivity.
isa ASPEC
[275]
(reflexive: autopilot = pilot −auto/ASPEC:reflex)

ASPEC:resul *Result.* Prefix conveys result.
isa ASPEC
[277]
(resultative: fastnagle 'rivet' = nagle −fast/ASPEC:resul)

ASPEC:rev *Reversion.* Prefix conveys reversion.
isa ASPEC
[272]
(reversion: deactivate = activate −de/ASPEC:rev)

ASPEC:term *Termination.* Prefix conveys termination.
isa ASPEC
[276]
(terminative: oplåse 'open' = låse −op/ASPEC:term)

GRAD *Graduation.* Prefix conveys graduation in a broad sense.
isa PREFIX
Subtypes: GRAD:qual GRAD:size.
[268]

GRAD:qual *Quality.* Prefix conveys quality.
isa GRAD
[270]
(quality: supercomputer = computer −super/GRAD:qual)

GRAD:size *Size.* Prefix conveys size.
isa GRAD
[269]
(size/quantity: minibar = bar −mini/GRAD:size)

LOC *Location.* Prefix expresses location in a broad sense.
isa PREFIX
Subtypes: LOC:dir LOC:pos LOC:proce.
[257]

LOC:dir *Direction.* Prefix expresses direction.
isa LOC
[259]
(direction/origin: deverbal = verbal −de/LOC:dir)

LOC:pos *Position.* Prefix expresses position.
isa LOC
[258]

(position: intramural = mural −intra/LOC:pos)

LOC:proce *Origin.* Prefix conveys origin.
isa LOC
[260]

(origin: extraer: = traer −ex/LOC:proce)

MOD *Modification.* Prefix conveys modification in a broad sense.
isa PREFIX
Subtypes: MOD:cuant MOD:man MOD:qual.
[279]

MOD:cuant *Quantification.* Prefix conveys quantification.
isa MOD
[280]

(quantification: multicultural = cultural −multi/MOD:quant)

MOD:man *Manner.* Prefix conveys manner.
isa MOD
[281]

(manner: maleducado = educado −mal/MOD:man)

MOD:qual *Qualification.* Prefix conveys qualification.
isa MOD
[282]

(qualification: paleochristian = christian −paleo/MOD:qual)

NEG *Negation.* Prefix conveys negation in a broad sense.
isa PREFIX
Subtypes: NEG:oppo NEG:priv.
[265]

NEG:oppo *Opposition.* Prefix conveys opposition.
isa NEG
[266]

(opposition: antihero = hero −anti/NEG:oppo)

NEG:priv *Privation.* Prefix conveys privation.
isa NEG
[267]

(privation: desalt = salt −de/NEG:priv)

PRE:other *Other prefix relation.* If in doubt about the meaning conveyed by the prefix
isa PREFIX
[262]

TIME *Time.* Prefix conveys time in a broad sense.
isa PREFIX
[277]

TRANS *Transitivity.* Prefix conveys transitivity.
isa PREFIX
[278]

(transitivising: påsejle 'collide': sejle −på/TRANS)

4.2.2 Suffix relations: SUFFIX

SUFFIX
isa MORPHDERIV
[255]
Semantic relations appearing with suffixes. A semantic relation is created between a base and a suffix.
Subtypes: AUG DENOM DENUM DER DEV DEVN DIMIN NOPRED PEJ QUAL.

AUG
isa SUFFIX
[284]
Augmentation. Suffix conveys augmentation.

(augmentative: perrazo 'big dog' = perro +azo/AUG)

DENOM
isa SUFFIX
[320]
Noun-adjective derivation. Suffix creates denominal adjectives in a broad sense.
Subtypes: DENOM:disp DENOM:eff DENOM:other DENOM:poss DENOM:rel DENOM:resem.

DENOM:disp
isa DENOM
[328]
Noun-adjective derivation (disposition). Suffix creates denominal adjectives that express disposition.

"que tiene afición por N" (mujeriego – "que afición por las mujeres" 'kvindeglad/som er glad for kvinder')

DENOM:eff
isa DENOM
[329]
Noun-adjective derivation (effect). Suffix creates denominal adjectives that express an effect.

"que causa simpatía" (simpático – "que causa simpatía" 'sympatisk/som vækker sympati')

DENOM:other
isa DENOM
[330]
Noun-adjective derivation (other). If in doubt about the meaning conveyed by the suffix

DENOM:poss
isa DENOM
[327]
Noun-adjective derivation (possession). Suffix creates denominal adjectives that express possession.

"que posee/tiene/lleva N" (barbudo – "que lleva barba" 'skægget/som bærer skæg')

DENOM:rel
isa DENOM
[321]
Noun-adjective derivation (relational). Suffix creates denominal adjectives with a relational meaning.
Subtypes: DENOM:rel.deono DENOM:rel.norm.

DENOM:rel.deono
isa DENOM:rel
[323]
Noun-adjective derivation (naming). Suffix creates relational adjectives with the meaning of "naming".
Subtypes: DENOM:rel.deono.pers DENOM:rel.deono.place.

NOM:rel.deono.pers
isa DENOM:rel.deono
[324]
Noun-adjective derivation (naming persons). Suffix creates relational adjectives with the meaning of "naming" persons.

Cervantino 'som har at gøre med Cervantes'

NOM:rel.deono.place isa DENOM:rel.deono [325] *Noun-adjective derivation (naming places).* Suffix creates relational adjectives with the meaning of "naming" of places.

Madrileño 'som har at gøre med/kommer fra Madrid'

DENOM:rel.norm isa DENOM:rel [322] *Noun-adjective derivation (normal).* Suffix creates relational adjectives with a "normal" meaning aspect.

(denominal adjective: presidential = president +ial/DENOM:rel.norm)

DENOM:resem isa DENOM [326] *Noun-adjective derivation (resemblance).* Suffix creates denominal adjectives that express resemblance.

"que se parece a N" (sanchopancesco − "que se parece a Sancho Panza" 'sanchopanzask/som ligner Sancho Panza')

DENUM isa SUFFIX [331] *Adjective-numeral derivation.* Suffix creates denumeral adjectives in a broad sense.
Subtypes: DENUM:mult DENUM:ord DENUM:part.

DENUM:mult isa DENUM [334] *Adjective-multiplicative derivation.* Suffix creates multiplicative numerals.

"kardinal=cinco − multiplikativ=quíntuplo" 'fem/femdobbelte'

DENUM:ord isa DENUM [332] *Adjective-ordinal derivation.* Suffix creates ordinals.

"kardinal=dos − ordinal=segundo" 'to/anden'

DENUM:part isa DENUM [333] *Adjective-partitive derivation.* Suffix creates partitive numerals.

"kardinal=doce − partitiv=doceavo" 'tolv/tolvtedel'

DER isa SUFFIX [287] *Verb derivation.* Suffix triggers a derivation
Subtypes: DER:av DER:nv DER:vv.

DER:av isa DER [289] *Adjective-verb derivation.* Suffix triggers a derivation from an adjective to a verb.

(adjective−>verb derivation: darken = dark +en/DER:av)

DER:nv
isa DER
[288]
Noun-verb derivation. Suffix triggers a derivation from a noun to a verb.

(noun−>verb derivation: salar 'to salt' = sal +ar/DER:nv)

DER:vv
isa DER
[290]
Verb-verb derivation. Suffix triggers a derivation from a verb to another verb.

(verb−>verb derivation: adormecer 'lull to sleep' = dormir −+[a][ecer]/DER:vv)

DEV
isa SUFFIX
[311]
(long: DEVERB).
Subtypes: DEVA.

DEVA
isa DEV
[312]
Verb-adjective derivation (long: DEVERBA). Suffix creates deverbal adjectives in a broad sense.
Subtypes: DEVA:act DEVA:pas.part.

DEVA:act
isa DEVA
[313]
Verb-adjective derivation (active) (long: DEVERB:act.pure). Suffix creates active adjectives.
Subtypes: DEVA:act.disp DEVA:act.poten DEVA:pas.

DEVA:act.disp
isa DEVA:act
[314]
Verb-adjective derivation (pure) (long: DEVERB:act.disp). Suffix creates active adjectives with the meaning aspect "pure".

"que V" (conmovedor − "que conmueve" 'gribende/der griber')

DEVA:act.poten
isa DEVA:act
[315]
Verb-adjective derivation (disposition) (long: DEVERB:act.poten). Suffix creates active adjectives with the meaning aspect "disposition".

"que suele V, que tiende a V" (adulón − "que suele adular, que tiende a adular" 'smigre/som plejer eller

har tendens til at være krybende

DEVA:pas
isa DEVA:act
[316]
Verb-adjective derivation (potentiality) (long: DEVERB:pas). Suffix creates active adjectives with the meaning aspect "potentiality".
Subtypes: DEVA:pas.deon DEVA:pas.poten.

(deverbal adjective: transportable = transport +able/DEVERB:pas.poten)

DEVA:pas.deon
isa DEVA:pas
[319]
Verb-adjective derivation (passive potentiality) (long: DEVERB:pas.deon). Suffix creates passive adjectives with the meaning aspect "potentiality".

"que puede {ser PP/Vse}" (transportable – "máquina que puede {ser transportada/transportarse}

'transportabel/maskine som kan blive transporteret/transporteres

DEVA:pas.poten
isa DEVA:pas
[318]

Verb-adjective derivation (passive participles) (long: DEVERB:pas.poten). Suffix creates passive adjectives with the form of participles.

"que {ha sido/está/es} PP" (comprado – "hombre que {ha sido/está/es} comprado 'mand som er

blevet/er/bliver købt"

DEVA:pas.part
isa DEVA
[317]

Verb-adjective derivation (passive) (long: DEVERB:pas.part). Suffix creates passive adjectives.

DEVN
isa SUFFIX
[291]

Verb-noun derivation (long: DEVERBN, deprecated PRED). Suffix creates deverbal nouns in a broad sense.
Subtypes: DEVN:agent DEVN:core DEVN:exper DEVN:inst DEVN:loc DEVN:other DEVN:recip DEVN:result.

DEVN:agent
isa DEVN
[292]

Verb-noun derivation (agent). Suffix creates deverbal nouns absorbing the agent role.

(agent derivation: singer = sing +er/PRED:agent)

DEVN:core
isa DEVN
[294]

Verb-noun derivation (core). Suffix creates deverbal nouns expressing a nominalized version of the situation denoted by the original verb.

(core derivation: exploitation = exploit@V +ation/PRED:core)

DEVN:exper
isa DEVN
[293]

Verb-noun derivation (experiencer). Suffix creates deverbal nouns absorbing the experiencer role.

(experiencer derivation: admirer = admire +r/PRED:exper

DEVN:inst
isa DEVN
[298]

Verb-noun derivation (instrument). Suffix creates deverbal nouns expressing the instrument related to the meaning of the original noun.

(instrument derivation: exprimidor 'saftpresser' = exprimir +dor/PRED:inst)

DEVN:loc
isa DEVN
[297]
Verb-noun derivation (location). Suffix creates deverbal nouns expressing the location related to the meaning of the original noun.

(locative derivation: comedor 'spisestue' = comer +dor/PRED:loc)

DEVN:other
isa DEVN
[299]
Verb-noun derivation (other). If in doubt about the meaning conveyed by the suffix

DEVN:recip
isa DEVN
[296]
Verb-noun derivation (recipient). Suffix creates deverbal nouns absorbing the recipient role

(recipient derivation: beneficiario 'den begunstigede' = beneficiar +ario/PRED:recip)

DEVN:result
isa DEVN
[295]
Verb-noun derivation (patient). Suffix creates deverbal nouns absorbing the patient role.

(result derivation: hallazgo 'fund' = hallar +azgo/PRED:result)

DIMIN
isa SUFFIX
[285]
Diminution. Suffix conveys diminution.

(diminutive: viejecito 'little old man' = viejo +ecito/DIM)

NOPRED
isa SUFFIX
[301]
Noun-noun derivation. Suffix creates non-predicative nouns (from other nouns) in a broad sense.
Subtypes: NOPRED:agent NOPRED:capac NOPRED:cont NOPRED:loc NOPRED:other NOPRED:result NOPRED:script NOPRED:set NOPRED:temp.

NOPRED:agent
isa NOPRED
[302]
Noun-noun derivation (agent). Suffix creates non-predicative nouns expressing an agent role.

(agent derivation: miller = mill +er/NOPRED:agent)

NOPRED:capac
isa NOPRED
[307]
Noun-noun derivation (capacity). Suffix creates non-predicative nouns expressing a capacity.

(capacity derivation: cestada 'kurvfuld' = cesta +ada/NOPRED:capac)

NOPRED:cont
isa NOPRED
[304]
Noun-noun derivation (container). Suffix creates non-predicative nouns expressing a container.

(container derivation: azucarero 'sugar bowl' = azucar +ero/NOPRED:cont)

NOPRED:loc
isa NOPRED
[308]
Noun-noun derivation (location). Suffix creates non-predicative nouns expressing a location.

(locative derivation: arenal 'sandet strækning' = arena +al/NOPRED:loc)

NOPRED:other
isa NOPRED
[310]
Noun-noun derivation (other). If in doubt about the meaning conveyed by the suffix

NOPRED:result
isa NOPRED
[303]
Noun-noun derivation (result). Suffix creates non-predicative nouns expressing a result.

(result derivation: puñalada 'knivstik' = puñal +ada/NOPRED:result)

NOPRED:script
isa NOPRED
[309]
Noun-noun derivation (script). Suffix creates non-predicative nouns expressing a script/notion related to the original noun.

(script derivation: pontaje 'brobetaling' = puente +aje/NOPRED:script)

NOPRED:set
isa NOPRED
[306]
Noun-noun derivation (set). Suffix creates non-predicative nouns expressing a set.

(set derivation: perrada 'hundekobbel' = perro +ada/NOPRED:set)

NOPRED:temp
isa NOPRED
[305]
Noun-noun derivation (temporal). Suffix creates non-predicative nouns expressing a temporal aspect.

(temporal derivation: temporada 'tidsrum/sæson' = tiempo +ada/NOPRED:temp)

PEJ
isa SUFFIX
[286]
Pejoration. Suffix conveys a pejorative sense.

(pejorative: vinacho 'bad vine' = vino +acho/PEJ)

QUAL
isa SUFFIX
[300]
Adjective derivation. Suffix creates deadjectival nouns.

(deadjectival noun: bitterness = bitter +ness/QUAL)

SUFFIX: semantic relations appearing with suffixes
- AUG: augmentation
- DENOM: noun-adjective derivation
  - DENOM:disp: noun-adjective derivation (disposition)
  - DENOM:eff: noun-adjective derivation (effect)
  - DENOM:other: noun-adjective derivation (other)
  - DENOM:poss: noun-adjective derivation (possession)
  - DENOM:rel: noun-adjective derivation (relational)
    - DENOM:rel.deono: noun-adjective derivation (naming)
      - DENOM:rel.deono.pers: noun-adjective derivation (naming persons)
      - DENOM:rel.deono.place: noun-adjective derivation (naming places)
    - DENOM:rel.norm: noun-adjective derivation (normal)
  - DENOM:resem: noun-adjective derivation (resemblance)
- DENUM: adjective-numeral derivation
  - DENUM:mult: adjective-multiplicative derivation
  - DENUM:ord: adjective-ordinal derivation
  - DENUM:part: adjective-partitive derivation
- DER: verb derivation
  - DER:av: adjective-verb derivation
  - DER:nv: noun-verb derivation
  - DER:vv: verb-verb derivation
- DEV:
  - DEVA: verb-adjective derivation
    - DEVA:act: verb-adjective derivation (active)
      - DEVA:act.disp: verb-adjective derivation (pure)
      - DEVA:act.poten: verb-adjective derivation (disposition)
      - DEVA:pas: verb-adjective derivation (potentiality)
        - DEVA:pas.deon: verb-adjective derivation (passive potentiality)
        - DEVA:pas.poten: verb-adjective derivation (passive participles)
    - DEVA:pas.part: verb-adjective derivation (passive)
- DEVN: verb-noun derivation
  - DEVN:agent: verb-noun derivation (agent)
  - DEVN:core: verb-noun derivation (core)
  - DEVN:exper: verb-noun derivation (experiencer)
  - DEVN:inst: verb-noun derivation (instrument)
  - DEVN:loc: verb-noun derivation (location)
  - DEVN:other: verb-noun derivation (other)
  - DEVN:recip: verb-noun derivation (recipient)
  - DEVN:result: verb-noun derivation (patient)
- DIMIN: diminution
- NOPRED: noun-noun derivation
  - NOPRED:agent: noun-noun derivation (agent)
  - NOPRED:capac: noun-noun derivation (capacity)
  - NOPRED:cont: noun-noun derivation (container)
  - NOPRED:loc: noun-noun derivation (location)
  - NOPRED:other: noun-noun derivation (other)
  - NOPRED:result: noun-noun derivation (result)
  - NOPRED:script: noun-noun derivation (script)
  - NOPRED:set: noun-noun derivation (set)
  - NOPRED:temp: noun-noun derivation (temporal)
- PEJ: pejoration
- QUAL: adjective derivation

Figure 4.5: The relations matching SUFFIX.

Chapter 5

Discourse relations: DISCOURSE

Figure 5.1: The relations matching DISCOURSE-DISCFUNC-DISCSEM.

DISC
isa DIM:LEVEL
[17]

Discourse level (long: DISCOURSE). A relation at the discourse level. Ie, a relation between segments in different sentences or clauses.
Subtypes: "¤" PRIM DISCFUNC DISCSEM.

"¤" PRIM
isa DISC RULE
[356]

Discourse specification. A primary syntactic relation that has been used as a discourse relation for stilistic purposes.

5.1 Functional relations: DISCFUNC

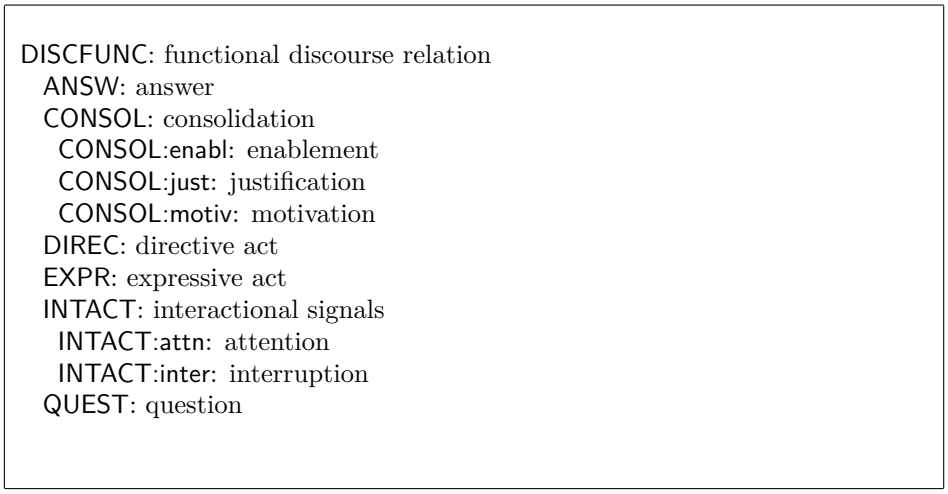


Figure 5.2: The relations matching DISCFUNC.

DISCFUNC
isa ADJ DISC
[203]

Functional discourse relation. The relation between governing and depending text segments is defined functionally: the depending text segment has illocutionary, structuring or enhancing function

Subtypes: ANSW CONSOL DIREC EXPR INTACT QUEST.

ANSW isa DISCFUNC [239]
Answer. Governing text segment contains question or problem, dependent text segment answer or solution

CONSOL isa DISCFUNC [245]
Consolidation (deprecated SUPPORT?).
Subtypes: CONSOL:enabl CONSOL:just CONSOL:motiv.

CONSOL:enabl isa CONSOL [247]
Enablement. S enables reader or recipient to carry out the action mentioned in N; frequent in directive texts

CONSOL:just isa CONSOL [246]
Justification (deprecated JUST). S justifies N wrt its content (reason for mentioning it or sim.) thereby strengthening it argumentatively

[da] Fordi, Eftersom

CONSOL:motiv isa CONSOL [248]
Motivation. S motivates reader or recipient to carry out the action mentioned in N

DIREC isa DISCFUNC [240]
Directive act. Dependent text segment contains an order, command or request

e.g. imperatives

EXPR isa DISCFUNC [241]
Expressive act. Dependent text segment contains an expression of the speaker's attitudes or emotions, e.g. congratulations, excuses or thanks

[en] I'm sorry!; My condolences!

INTACT isa DISCFUNC [242]
Interactional signals.
Subtypes: INTACT:attn INTACT:inter.

INTACT:attn isa INTACT [243]
Attention. S contains an attention signal

[da] Ja; Nå; OK; [it] Sì; Beh; [en] Yeah, Oh, Really?

INTACT:inter isa INTACT [244]
Interruption. S contains an interruption signal

[da] Jamen; [it] Ma; [en] But... But

QUEST isa DISCFUNC [238]
Question . The dependent text segment contains a question with or withour an answer

DISCSEM: semantic discourse relation
  CAUSE: cause relation (discourse)
    CAUSE:expl: explanation relation (discourse)
    CAUSE:goal: goal relation (discourse)
    CAUSE:reas: reason relation (discourse)
  CONC: concession
  COND: condition
  CONJ: conjunction
    CONJ:seq: sequence
  CONS: consequence/result/conclusion relation (discourse)
    CONS:dir: direct, physical consequence, result
    CONS:prg: pragmatic/personal conclusion, deduction
  CONTR: contrast
    CONTR:dir: direct contrast
    CONTR:prg: pragmatic contrast
  DESCR: description/evaluation
    DESCR:eval: positive/negative evaluation
    DESCR:qual: neutral description
  DISJ: disjunction
    DISJ:dir: direct disjunction
    DISJ:prg: pragmatic disjunction
  ELAB: elaboration
    ELAB:exem: exemplification
    ELAB:exp: expansion
    ELAB:part: part of relation
    ELAB:rest: restatement
  JOINT: no clear relation
  STRUCT: structural relation
    STRUCT:prep: preparation
    STRUCT:rep: repaired
  TIME: temporal relation
    TIME:cont: contemporaneity
    TIME:prec: temporal precedence
    TIME:prec§: temporal precedence
    TIME:succ: temporal succession
    TIME:succ§: temporal succession

Figure 5.3: The relations matching DISCSEM.

5.2 Semantic relations: DISCSEM

DISCSEM isa ADJ DISC [202]
Semantic discourse relation. The relation between governing and depending text segments is defined semantically
Subtypes: CAUSE CONC COND CONJ CONS CONTR DESCR DISJ ELAB JOINT STRUCT TIME.

CAUSE isa DISCSEM [205]
Cause relation (discourse). S expresses cause in a broad sense
Subtypes: CAUSE:expl CAUSE:goal CAUSE:reas.

CAUSE:expl isa CAUSE [206]
Explanation relation (discourse). S expresses explanation; a more general and elaborating explanation than "reason"

[da] Nemlig; [it] Infatti

CAUSE:goal *Goal relation (discourse).* S expresses goal, purpose, aim
isa CAUSE
[207]

[da] For (at)

CAUSE:reas *Reason relation (discourse).* S expresses a specific and concrete reason
isa CAUSE
[208]

[da] Fordi, Eftersom

CONC *Concession.* S admits or acknowledges a fact wrt N, which may however not have the expected consequence or effect
isa DISCSEM
[224]
Related types: conc.

[da] Dog, Skønt

COND *Condition.*
isa DISCSEM
[225]
Related types: cond.

[da] På betingelse af, Hvis

CONJ *Conjunction.* Dependent text segment adds a new subject somehow related to governing text segment; may be difficult to distinguish from ELAB:exp
isa DISCSEM
[226]
Subtypes: CONJ:seq.
Related types: conj.

CONJ:seq *Sequence.* Dependent text segment is part of list or sequence linked to governing text segment as e.g. in recipes, sport results etc.
isa CONJ
[227]

CONS *Consequence/result/conclusion relation (discourse).* S expresses consequence, result or conclusion wrt N
isa DISCSEM
[209]
Subtypes: CONS:dir CONS:prg.

CONS:dir *Direct, physical consequence, result.* Physical, objectively observed consequence or result
isa CONS
[210]

[da] Derfor, Af den grund

CONS:prg *Pragmatic/personal conclusion, deduction.* Personal, subjective conclusion or deduction
isa CONS
[211]

[da] Derfor, Af den grund

CONTR *Contrast.*
isa DISCSEM
[231]
Subtypes: CONTR:dir CONTR:prg.

CONTR:dir *Direct contrast.* The contrast lies between the governing and dependent text segment
isa CONTR
[232]

[da] Men, Derimod

CONTR:prg isa CONTR [233] *Pragmatic contrast.* The contrast lies between the dependent and an inferred text segment

[da] Men

DESCR isa DISCSEM [212] *Description/evaluation.* S expresses description or evaluation of N
Subtypes: DESCR:eval DESCR:qual.

DESCR:eval isa DESCR [213] *Positive/negative evaluation.* S expresses a personal and/or subjective positive or negative description of N

DESCR:qual isa DESCR [214] *Neutral description.* S expresses an objective and/or neutral description of N

[da] Sådan

DISJ isa DISCSEM [234] *Disjunction.*
Subtypes: DISJ:dir DISJ:prg.

[da] Eller

DISJ:dir isa DISJ [235] *Direct disjunction.* The disjunction lies between the governing and dependent text segment

DISJ:prg isa DISJ [236] *Pragmatic disjunction.* The disjunction lies between the dependent and an inferred text segment

ELAB isa DISCSEM [215] *Elaboration.* S adds more information or detail on N
Subtypes: ELAB:exem ELAB:exp ELAB:part ELAB:rest.

ELAB:exem isa ELAB [216] *Exemplification.* S gives examples of elements or phenomena mentioned in N

[en] For example

ELAB:exp isa ELAB [217] *Expansion* (deprecated ELAB:spec). S develops and expans knowledge of N; may be difficult to distinguish from CONJ

[it] Cioè

ELAB:part isa ELAB [218] *Part of relation.* S is a concrete part of N

[da] Herunder, Heri

ELAB:rest isa ELAB [219] *Restatement.* S states N again in a different way

[da] Dvs.; [it] Ossia, In altre parole, Cioè; [en] In other words, Or

JOINT isa DISCSEM [237] *No clear relation.* The dependent text segment adds a completely new content without any clear discourse relation to the governing segment

STRUCT isa DISCSEM [228] *Structural relation.*
Subtypes: STRUCT:prep STRUCT:rep.

STRUCT:prep isa STRUCT [229] *Preparation.* Dependent text segment "prepares" for the following and governing text, e.g. headings, titles

STRUCT:rep isa STRUCT [230] *Repaired.* Dependent text segment is interrupted and unfinished and "repaired" by the following and governing text segments, which completes it

TIME isa DISCSEM [220] *Temporal relation* (deprecated CIRCUM). There is a clear temporal relation between N and S
Subtypes: TIME:cont TIME:prec TIME:prec§ TIME:succ TIME:succ§.

TIME:cont isa TIME [221] *Contemporaneity.* S is contemporary with N (now includes abolished TIME:dur)

[da] Samtidig, Mens, Så længe, Da

TIME:prec isa TIME [222] *Temporal precedence.* S precedes N

[en] Earlier, Some days before

TIME:prec§ isa TIME [263] *Temporal precedence.* Prefix conveys precedence.

(temporal precedence: prehistorical = historical −pre/TIME:prec)

TIME:succ isa TIME [223] *Temporal succession.* S succeeds N

[en] Later, Some time afterwards

TIME:succ§ isa TIME [264] *Temporal succession.* Prefix conveys succession.

(temporal succession: postmodernism = modernism −post/TIME:succ)

Chapter 6

Anaphor relations: ANTECEDENT

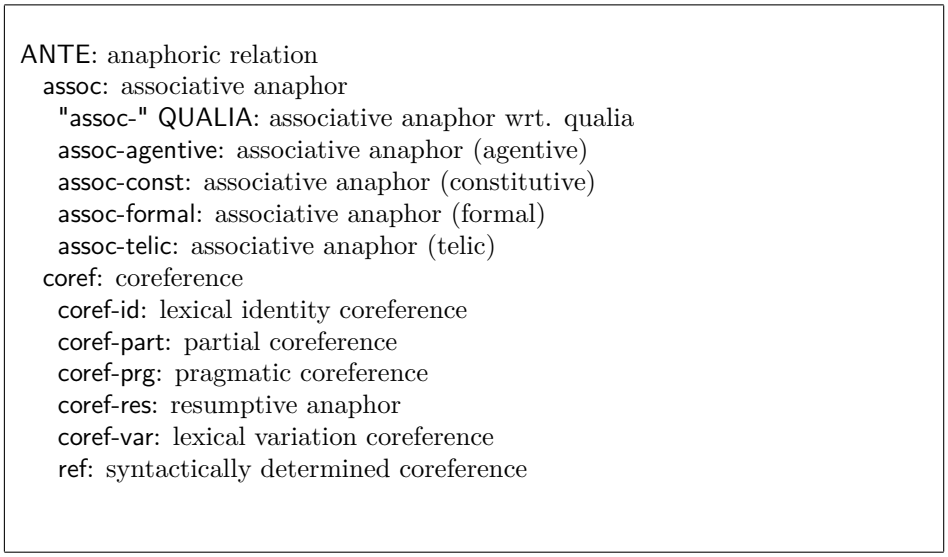


Figure 6.1: The relations matching ANTECEDENT.

ANTE isa DIM:TYPE [28]
Anaphoric relation (long: ANTECEDENT). An anaphoric relation. Ie, a relation between an anaphor (pronoun, definite description, etc.) and an antecedent which either is a coreferent, or which provides access to a coreferent via its qualia structure. The relation goes from antecedent to anaphor.
Subtypes: assoc coref.

assoc isa ANTE [191]
Associative anaphor. Anaphor denotes entity which is associated with antecedent
Subtypes: "assoc-" QUALIA assoc-agentive assoc-const assoc-formal assoc-telic.

"assoc-" QUALIA isa RULE assoc [192]
Associative anaphor wrt. qualia. Anaphor denotes entity which is associated with antecedent

assoc-agentive isa assoc [194]
Associative anaphor (agentive) (deprecated assoc-agent?).

assoc-const isa assoc [193]
Associative anaphor (constitutive) (deprecated assoc-loc?).

assoc-formal isa assoc [195]
Associative anaphor (formal) (deprecated assoc-form?).

assoc-telic isa assoc [196]
Associative anaphor (telic) (deprecated assoc-scope?).

coref *Coreference.* Anaphor denotes same entity as antecedent
isa ANTE Subtypes: coref-id coref-part coref-prg coref-res coref-var ref.
[185]

coref-id *Lexical identity coreference.* A car -> the car // a yellow car -> the yellow car
isa coref
[186]

coref-part *Partial coreference.* Coreferential with a part of the antecedent
isa coref
[187]

coref-prg *Pragmatic coreference.* Takes up a statement and evaluates it with respect to speech act; I will be there tomorrow -> the threat / promise / warning / statement
isa coref
[188]

coref-res *Resumptive anaphor.*
isa coref
[189]

coref-var *Lexical variation coreference.* A car -> the vehicle // a yellow car -> the car
isa coref
[190]

ref *Syntactically determined coreference.* Syntactically determined coreference (eg, relative pronouns, external topics)
isa coref
[184]

antecedent->anaphor

6.1 Coreference relations: coref

coref: coreference
- coref-id: lexical identity coreference
- coref-part: partial coreference
- coref-prg: pragmatic coreference
- coref-res: resumptive anaphor
- coref-var: lexical variation coreference
- ref: syntactically determined coreference

Figure 6.2: The relations matching coref.

coref *Coreference.* Anaphor denotes same entity as antecedent
isa ANTE Subtypes: coref-id coref-part coref-prg coref-res coref-var ref.
[185]

coref-id *Lexical identity coreference.* A car -> the car // a yellow car -> the yellow car
isa coref
[186]

coref-part *Partial coreference.* Coreferential with a part of the antecedent
isa coref
[187]

coref-prg *Pragmatic coreference.* Takes up a statement and evaluates it with respect to speech act; I will be there tomorrow -> the threat / promise / warning / statement
isa coref
[188]

coref-res *Resumptive anaphor.*
isa coref
[189]

coref-var *Lexical variation coreference.* A car -> the vehicle // a yellow car -> the car
isa coref
[190]

ref *Syntactically determined coreference.* Syntactically determined coreference (eg, relative pronouns, external topics)
isa coref
[184]

antecedent->anaphor

6.2 Associative anaphor relations: assoc

assoc: associative anaphor
  "assoc-" QUALIA: associative anaphor wrt. qualia
  assoc-agentive: associative anaphor (agentive)
  assoc-const: associative anaphor (constitutive)
  assoc-formal: associative anaphor (formal)
  assoc-telic: associative anaphor (telic)

Figure 6.3: The relations matching assoc.

assoc *Associative anaphor.* Anaphor denotes entity which is associated with antecedent
isa ANTE Subtypes: "assoc-" QUALIA assoc-agentive assoc-const assoc-formal assoc-telic.
[191]

"assoc-" QUALIA *Associative anaphor wrt. qualia.* Anaphor denotes entity which is associated with
isa RULE assoc antecedent
[192]

assoc-agentive *Associative anaphor (agentive)* (deprecated assoc-agent?).
isa assoc
[194]

assoc-const *Associative anaphor (constitutive)* (deprecated assoc-loc?).
isa assoc
[193]

assoc-formal *Associative anaphor (formal)* (deprecated assoc-form?).
isa assoc
[195]

assoc-telic *Associative anaphor (telic)* (deprecated assoc-scope?).
isa assoc
[196]

Chapter 7

Semantic relations: SEMANTICS

SEM: semantic level

Figure 7.1: The relations matching SEMANTICS-QUALIA-SEMROLE.

SEM *Semantic level* (long: SEMANTICS). A relation at the semantic level. Ie, a relation between functors, arguments, and modifiers.
isa DIM:LEVEL
[18]
Subtypes: QUALIA SEMROLE.

7.1 Qualia relations: QUALIA

QUALIA: qualia roles
  const: constitutive qualia
  formal: formal qualia
    agentive: agentive qualia
    location: location qualia
  resem: resemblance wrt. qualia role
    " " QUALIA: resemblance wrt. $qualia relation
  telic: telic qualia
    about: about qualia

Figure 7.2: The relations matching QUALIA.

QUALIA *Qualia roles.*
isa SEM
[31]
Subtypes: const formal resem telic.

const *Constitutive qualia.* Relates to material or part-whole qualia
isa QUALIA
[38]

N->P.material/part

formal isa QUALIA [35]
Formal qualia. Relates to hyperonym (super type) wrt. form, dimension, quality, shape, size.
Subtypes: agentive location.

agentive isa formal [36]
Agentive qualia. Relates to agentive qualia

N–>P.agent

location isa formal [37]
Location qualia.

resem isa QUALIA [41]
Resemblance wrt. qualia role. Resemblance wrt. some qualia role
Subtypes: " " QUALIA.

N–>P.resem

" " QUALIA isa RULE resem [42]
Resemblance wrt. $qualia relation.

telic isa QUALIA [39]
Telic qualia. Relates to purpose qualia
Subtypes: about.

about isa telic [40]
About qualia. Relates to hyponym (subtype)

7.2 Thematic role relations: SEMROLE

SEMROLE isa SEM [45]
. All the relations of the semantic roles run under the text line. The syntactic relation that runs over the text line is determinated by the word class of the lemma in question.
Subtypes: {about} {agent} {apart} {arg} {class} {const} {eval} {experient} {form} {func} {iden} {location} {origin} {patient} {poss} {pos} {quant} {recipient} {resem} {time}.

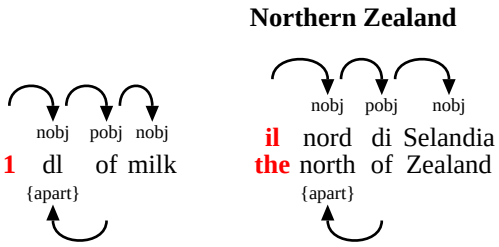
{about} isa SEMROLE [55]
.

{agent} isa SEMROLE [62]
An object or a person that performs an action. Often generated by subject relation

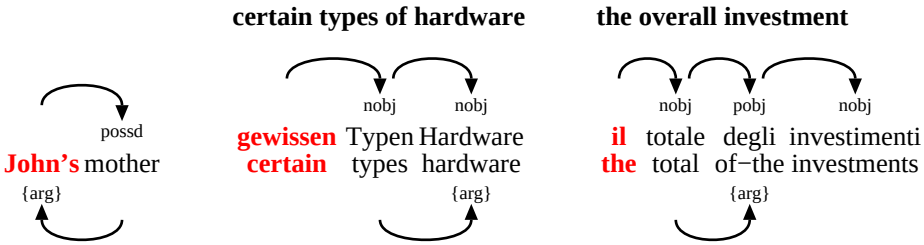
SEMROLE:
{about}:
{agent}: An object or a person that performs an action
{apart}:
{arg}:
{class}:
{const}:
{eval}:
{experient}: The receiver of an emotion or a psysical impact
{form}:
{func}:
{iden}:
{location}: The location where something is situated or happens
{origin}:
{patient}: An object or a person that is the subject of the action or the one who is located somewhere
{poss}:
{pos}:
{quant}:
{recipient}: The receiver of something
{resem}:
{time}:

Figure 7.3: The relations matching SEMROLE.

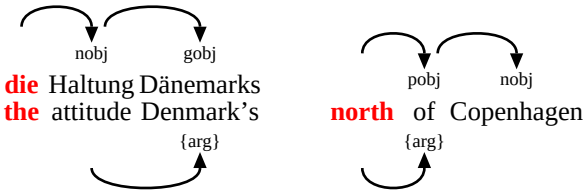
{apart} isa SEMROLE [56] (long: arbitrary part). Please note that the semantic relation goes from the satellite to the nucleus in opposition to the main part of the other semantic roles.



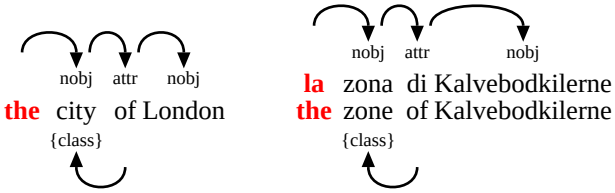
{arg} isa SEMROLE [61] (long: argument).



Denmark's attitude

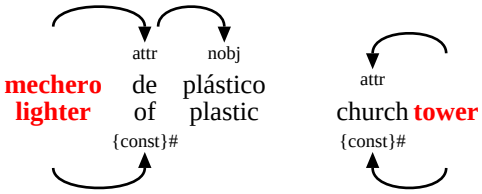


{class} isa SEMROLE [57] . Please note that the semantic relation goes from the satellite to the nucleus in opposition to the main part of the other semantic roles.

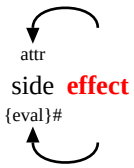


{const} isa SEMROLE [46] (long: constituent).

plastic lighter

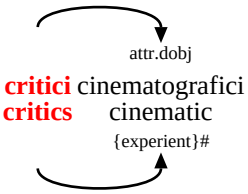


{eval} isa SEMROLE [53] (long: evaluation).



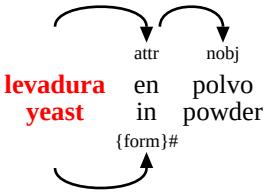
{experient} isa SEMROLE [64] *The receiver of an emotion or a psysical impact.* Often generated by direct object

film critics

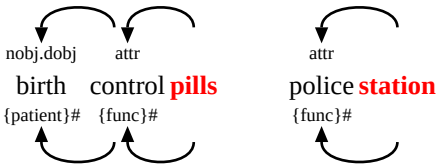


{form} isa SEMROLE [59] .

baking powder

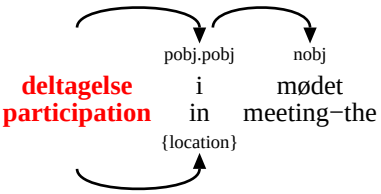


{func} (long: function).
isa SEMROLE
[49]

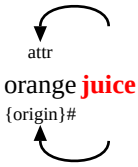


{iden} (long: identity).
isa SEMROLE
[60]

{location} *The location where something is situated or happens.* Often generated by prepositional object
isa SEMROLE
[66]

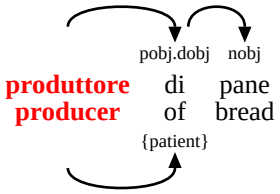


{origin} .
isa SEMROLE
[48]



{patient} *An object or a person that is the subject of the action or the one who is located somewhere.* Often generated by direct object
isa SEMROLE
[63]

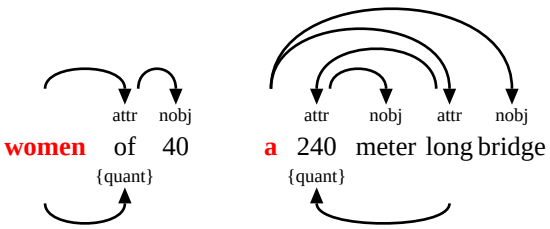
bread producer



{poss} (long: possession).
isa SEMROLE
[50]

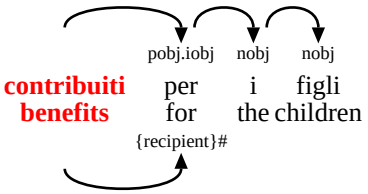
{pos} (long: position).
isa SEMROLE
[51]

{quant} (long: quantity).
isa SEMROLE
[58]



{recipient} *The receiver of something.* Often generated by indirect object
isa SEMROLE
[65]

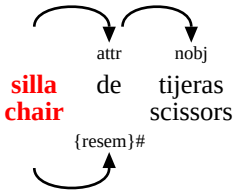
child benefits



child maintenance

{resem} (long: resemblance).
isa SEMROLE
[54]

folding chair



{time} .
isa SEMROLE
[52]

Chapter 8

Rule schemata for complex relations: RULE

RULE: relation rule
"(" ANY ")": disambiguation
"*" DISC: down-head in attribution
"<" PRIM ... ":" INTEGER ">": gapping dependent
"@" adverb: valency-bound adverbial
"[" PRIM "]": pattern for secondary syntactic dependency relation formed from primary syntactic dependency relation
"assoc-" QUALIA: associative anaphor wrt. qualia
"{" SEM "}": pattern for secondary semantic dependency realtion formed from primary semantic dependency relation
" " QUALIA: resemblance wrt. $qualia relation
"¤" PRIM: discourse specification
"§" PRIM: morphology specification
ANY "&" ANY: both-and relation
ANY "|" ANY: either-or relation
DISC "*": down-dependent in attribution
PRIM "#": pattern for idiomatic primary dependency
PRIM "/" CONNECTOR: explicit connector
PRIM "/(" CONNECTOR ")": implicit connector
PRIM "/ATTR" INTEGER: attribution
PRIM "{" THEM "}": pattern for primary dependency relation with thematic role

Figure 8.1: The relations matching RULE.

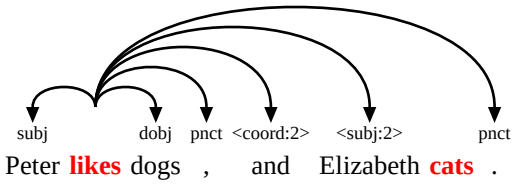
RULE *Relation rule.* Rule for specifying complex relations.
isa ANY
[8]
Subtypes: "(" ANY ")" "*" DISC "<" PRIM ... ":" INTEGER ">" "@" adverb "[" PRIM "]" "assoc-" QUALIA "{" SEM "}" " " QUALIA "¤" PRIM "§" PRIM ANY "&" ANY ANY "|" ANY DISC "*" PRIM "#" PRIM "/" CONNECTOR PRIM "/(" CONNECTOR ")" PRIM "/ATTR" INTEGER PRIM "{" THEM "}".

"(" ANY ")" *Disambiguation.*
isa RULE
[366]

"*" DISC *Down-head in attribution.* The head in the relation is one step further down in the attribution chain
isa RULE
[366]

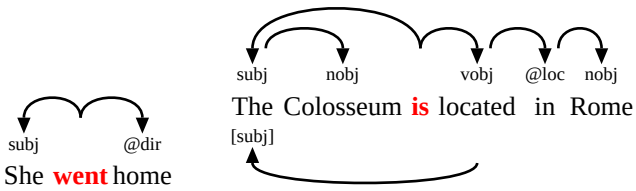
"<" PRIM ... ":" INTEGER ">"
isa GAP RULE
[354]

Gapping dependent. First conjunct->gapping dependent



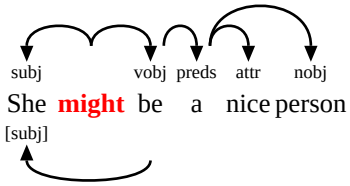
"@" adverb
isa COMP RULE
[368]

Valency-bound adverbial. A complement relation which can be interpreted as an obligatory, valency-bound adverbial relation.
Related types: cont dir dur ext hab loc prec succ time.



"[" PRIM "]"
isa RULE SEC
[352]

Pattern for secondary syntactic dependency relation formed from primary syntactic dependency relation. Governor->secondary syntactic dependent; $PRIM must be non-secondary
Related types: "{" "}" $PRIM.

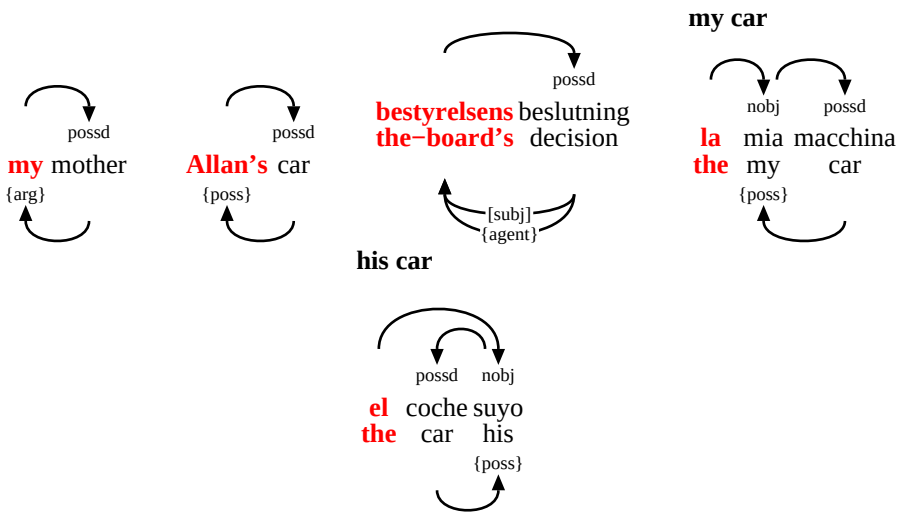


"assoc-" QUALIA
isa RULE assoc
[192]

Associative anaphor wrt. qualia. Anaphor denotes entity which is associated with antecedent

"{" SEM "}"
isa RULE SEC
[353]

Pattern for secondary semantic dependency realtion formed from primary semantic dependency relation. Governor->secondary semantic dependent; $PRIM must be non-secondary
Related types: "[" "]" $PRIM.



" " QUALIA [347] isa RULE resem

Resemblance wrt. $qualia relation.

"¤" PRIM [352] isa DISC RULE [356]

Discourse specification. A primary syntactic relation that has been used as a discourse relation for stilistic purposes.

"§" PRIM isa MORPH RULE

Morphology specification.

ANY "&" ANY [337] isa RULE

Both-and relation. Both relations hold

ANY "|" ANY [338] isa RULE

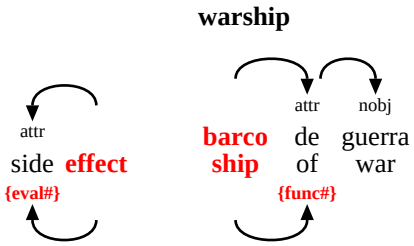
Either-or relation. One of the relations holds

DISC [359] isa RULE [367]

Down-dependent in attribution. The dependent in the relation is one step further down in the attribution chain

PRIM "#" isa IDIOM RULE [350]

Pattern for idiomatic primary dependency. Head->dependent within idiom



PRIM "/" CONNECTOR

Explicit connector. The discourse relation has explicit connector $CONNECTOR

PRIM "/(" CONNECTOR ")" isa RULE [364]

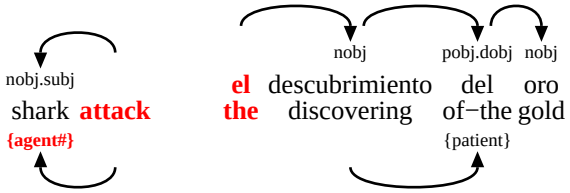
Implicit connector. The discourse relation has implicit connector $CONNECTOR

PRIM "/ATTR" INTEGER [345] isa RULE

Attribution. Specifies the person to whom the utterance is attributed (ATTR or ATTR1, ATTR2, ... when there is more than one person)

M "{" THEM [353] isa RULE [351]

Pattern for primary dependency relation with thematic role. $PRIM must be non-thematic; the thematic roles can be agent, patient, recipient, experient, location.



Chapter 9

Relations misplaced outside the ANY hierarchy

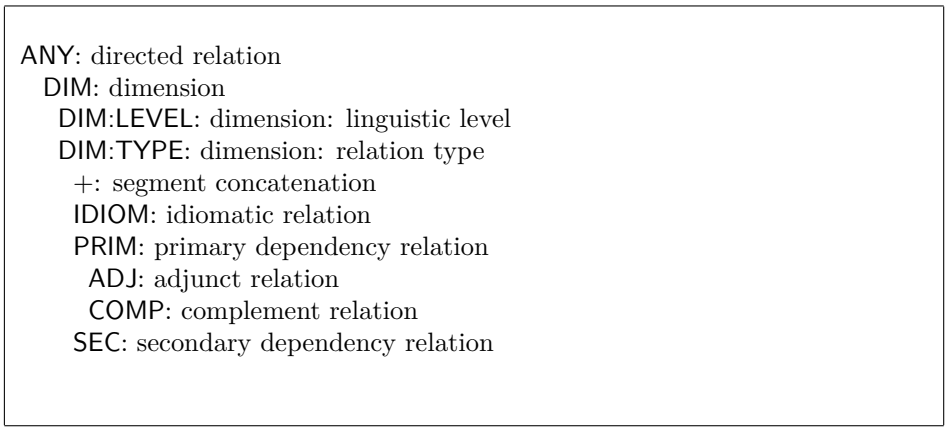
Figure 9.1: The relations matching -ANY.

MISPLACED [9] *Misplaced relation.* A relation is misplaced if it fails to have ANY as a transitive super type. This should never happen, and the problem must be corrected if a misplaced relation shows up here.

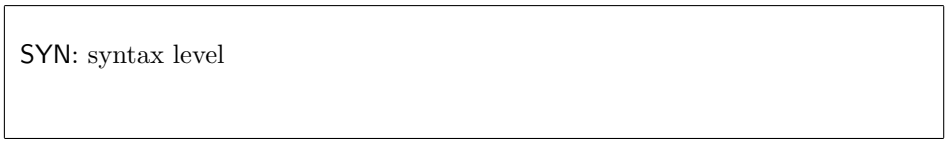
Appendix A

Overview tables

The tables in this section lists all the relations in the Copenhagen Dependency Treebanks, repeated from the preceding sections.



The relations matching
ANY-SYNTAX-MORPHOLOGY-DISCOURSE-ANTECEDENT-SEMANTICS-RULE.



The relations matching SYNTAX-SYNCOMP-SYNADJ.

SYNCOMP: syntactic complement
- @space: valency-bound location/direction adverbial
- @time: valency-bound time adverbial
- aobj: adjectival object
- avobj: adverbial object
- dobj: direct object
- fobj: filler object
- gobj: genitive object
- iobj: indirect object
- nobj: nominal object
- numa: additive numeral complement
- numm: multiplicative numeral complement
- part: verbal particle
- pobj: prepositional object
- possd: possessed complement
- possr: possessor complement
- pred: predicative
  - predo: object predicative
  - preds: subject predicative
- qobj: quotational object
- robj: reflexive object
- subj: subject
  - expl: expletive subject
- vobj: verbal object

The relations matching SYNCOMP.

ADVERB: adverbial
- agent: agent adverbial
- ben: benefactive adverbial
- cause: causation adverbial
  - goal: goal adverbial
  - reas: reason adverbial
- comp: comparison adverbial
- conc: concession adverbial
- concom:
- cond: condition adverbial
- cons: consequence adverbial
- degr: degree adverbial
- exem: example adverbial
- man: manner adverbial
  - accom: companionship adverbial
  - inst: instrument adverbial
- neg: negation adverbial
- other: other adverbial
- prg: pragmatic adverbial
  - att: attitude adverbial
  - discmark: sentence-initial discourse marker
  - epi: epistemic adverbial
  - eval: evaluation adverbial
  - focal: focalizer adverbial
  - pcond: pragmatic condition adverbial
- source: source attribution adverbial
- space: space adverbial
  - dir: direction adverbial
  - loc: location adverbial
- struct: text-structuring or connective adverbial
  - add: additive adverbial
  - bg: background adverbial
  - contr: contrast adverbial
  - elab: elaboration advebial
- time: time adverbial
  - cont: contemporaneity adverbial
  - dur: duration adverbial
  - ext: extent/frequency adverbial
  - hab: habituality adverb
  - prec: precedence adverbial
  - succ: succession adverbial

The relations matching ADVERB.

SYNADJ: syntactic adjunct
  GAP: gapping dependent
    "<" PRIM ... ":" INTEGER ">": gapping dependent
  app: apposition
    appa: parenthetic apposition (comma)
      xpl: explication
    appr: restrictive apposition (no comma)
  attr: attributive
  attrg: genitive attributive
  conj: conjunct relation
  coord: coordinator relation
  correl: correlative coordinator relation
  fpred: free predicative
    fpredo: free direct-object predicative
    fpreds: free subject predicative
  name: part of name
    namef: first name
    namel: last name
    title: person title
  pnct: punctuation
  rel: relative clause
    relelab: elaborating relative clause
    relpa: parenthetic relative clause
    relr: restrictive relative clause
  voc: vocative
  xtop: external topic with resuming pronoun

The relations matching SYNADJ-ADVERB.

MORPH: morphology level
  "§" PRIM: morphology specification

The relations matching MORPHOLOGY-MORPHCOMP-MORPHDERIV.

MORPHCOMP: compositional semantic relations
  ABOUT: noun-noun compound (about)
  AGENT: noun-noun compound (agentive)
  CONST: noun-noun compound (constitutive)
  EVAL: noun-noun compound (evaluative)
  FUNC: noun-noun compound (function)
  ORIGIN: noun-noun compound (origin)
  OTHER: noun-noun compound (other)
  POS: noun-noun compound (position)
  POSS: noun-noun compound (possession)
  RESEM: noun-noun compound (resemblance)
  TIME:MC: noun-noun compound (time)

The relations matching MORPHCOMP.

MORPHDERIV: derivational semantic relations

The relations matching MORPHDERIV-PREFIX-SUFFIX.

PREFIX: semantic relations appearing with prefixes
- ASPEC: aspectual dimension
  - ASPEC:cause: causation
  - ASPEC:iter: iteration
  - ASPEC:reflex: reflexivity
  - ASPEC:resul: result
  - ASPEC:rev: reversion
  - ASPEC:term: termination
- GRAD: graduation
  - GRAD:qual: quality
  - GRAD:size: size
- LOC: location
  - LOC:dir: direction
  - LOC:pos: position
  - LOC:proce: origin
- MOD: modification
  - MOD:cuant: quantification
  - MOD:man: manner
  - MOD:qual: qualification
- NEG: negation
  - NEG:oppo: opposition
  - NEG:priv: privation
- PRE:other: other prefix relation
- TIME§: time
- TRANS: transitivity

The relations matching PREFIX.

SUFFIX: semantic relations appearing with suffixes
- AUG: augmentation
- DENOM: noun-adjective derivation
  - DENOM:disp: noun-adjective derivation (disposition)
  - DENOM:eff: noun-adjective derivation (effect)
  - DENOM:other: noun-adjective derivation (other)
  - DENOM:poss: noun-adjective derivation (possession)
  - DENOM:rel: noun-adjective derivation (relational)
    - DENOM:rel.deono: noun-adjective derivation (naming)
      - DENOM:rel.deono.pers: noun-adjective derivation (naming persons)
      - DENOM:rel.deono.place: noun-adjective derivation (naming places)
    - DENOM:rel.norm: noun-adjective derivation (normal)
  - DENOM:resem: noun-adjective derivation (resemblance)
- DENUM: adjective-numeral derivation
  - DENUM:mult: adjective-multiplicative derivation
  - DENUM:ord: adjective-ordinal derivation
  - DENUM:part: adjective-partitive derivation
- DER: verb derivation
  - DER:av: adjective-verb derivation
  - DER:nv: noun-verb derivation
  - DER:vv: verb-verb derivation
- DEV:
  - DEVA: verb-adjective derivation
    - DEVA:act: verb-adjective derivation (active)
      - DEVA:act.disp: verb-adjective derivation (pure)
      - DEVA:act.poten: verb-adjective derivation (disposition)
      - DEVA:pas: verb-adjective derivation (potentiality)
        - DEVA:pas.deon: verb-adjective derivation (passive potentiality)
        - DEVA:pas.poten: verb-adjective derivation (passive participles)
    - DEVA:pas.part: verb-adjective derivation (passive)
- DEVN: verb-noun derivation
  - DEVN:agent: verb-noun derivation (agent)
  - DEVN:core: verb-noun derivation (core)
  - DEVN:exper: verb-noun derivation (experiencer)
  - DEVN:inst: verb-noun derivation (instrument)
  - DEVN:loc: verb-noun derivation (location)
  - DEVN:other: verb-noun derivation (other)
  - DEVN:recip: verb-noun derivation (recipient)
  - DEVN:result: verb-noun derivation (patient)
- DIMIN: diminution
- NOPRED: noun-noun derivation
  - NOPRED:agent: noun-noun derivation (agent)
  - NOPRED:capac: noun-noun derivation (capacity)
  - NOPRED:cont: noun-noun derivation (container)
  - NOPRED:loc: noun-noun derivation (location)
  - NOPRED:other: noun-noun derivation (other)
  - NOPRED:result: noun-noun derivation (result)
  - NOPRED:script: noun-noun derivation (script)
  - NOPRED:set: noun-noun derivation (set)
  - NOPRED:temp: noun-noun derivation (temporal)
- PEJ: pejoration
- QUAL: adjective derivation

The relations matching SUFFIX.

DISC: discourse level
  "¤" PRIM: discourse specification

The relations matching DISCOURSE-DISCFUNC-DISCSEM.

DISCFUNC: functional discourse relation
  ANSW: answer
  CONSOL: consolidation
    CONSOL:enabl: enablement
    CONSOL:just: justification
    CONSOL:motiv: motivation
  DIREC: directive act
  EXPR: expressive act
  INTACT: interactional signals
    INTACT:attn: attention
    INTACT:inter: interruption
  QUEST: question

The relations matching DISCFUNC.

DISCSEM: semantic discourse relation
- CAUSE: cause relation (discourse)
  - CAUSE:expl: explanation relation (discourse)
  - CAUSE:goal: goal relation (discourse)
  - CAUSE:reas: reason relation (discourse)
- CONC: concession
- COND: condition
- CONJ: conjunction
  - CONJ:seq: sequence
- CONS: consequence/result/conclusion relation (discourse)
  - CONS:dir: direct, physical consequence, result
  - CONS:prg: pragmatic/personal conclusion, deduction
- CONTR: contrast
  - CONTR:dir: direct contrast
  - CONTR:prg: pragmatic contrast
- DESCR: description/evaluation
  - DESCR:eval: positive/negative evaluation
  - DESCR:qual: neutral description
- DISJ: disjunction
  - DISJ:dir: direct disjunction
  - DISJ:prg: pragmatic disjunction
- ELAB: elaboration
  - ELAB:exem: exemplification
  - ELAB:exp: expansion
  - ELAB:part: part of relation
  - ELAB:rest: restatement
- JOINT: no clear relation
- STRUCT: structural relation
  - STRUCT:prep: preparation
  - STRUCT:rep: repaired
- TIME: temporal relation
  - TIME:cont: contemporaneity
  - TIME:prec: temporal precedence
  - TIME:prec§: temporal precedence
  - TIME:succ: temporal succession
  - TIME:succ§: temporal succession

The relations matching DISCSEM.

ANTE: anaphoric relation
  assoc: associative anaphor
    "assoc-" QUALIA: associative anaphor wrt. qualia
    assoc-agentive: associative anaphor (agentive)
    assoc-const: associative anaphor (constitutive)
    assoc-formal: associative anaphor (formal)
    assoc-telic: associative anaphor (telic)
  coref: coreference
    coref-id: lexical identity coreference
    coref-part: partial coreference
    coref-prg: pragmatic coreference
    coref-res: resumptive anaphor
    coref-var: lexical variation coreference
    ref: syntactically determined coreference

The relations matching ANTECEDENT.

coref: coreference
  coref-id: lexical identity coreference
  coref-part: partial coreference
  coref-prg: pragmatic coreference
  coref-res: resumptive anaphor
  coref-var: lexical variation coreference
  ref: syntactically determined coreference

The relations matching coref.

assoc: associative anaphor
  "assoc-" QUALIA: associative anaphor wrt. qualia
  assoc-agentive: associative anaphor (agentive)
  assoc-const: associative anaphor (constitutive)
  assoc-formal: associative anaphor (formal)
  assoc-telic: associative anaphor (telic)

The relations matching assoc.

SEM: semantic level

The relations matching SEMANTICS-QUALIA-SEMROLE.

QUALIA: qualia roles
  const: constitutive qualia
  formal: formal qualia
    agentive: agentive qualia
    location: location qualia
  resem: resemblance wrt. qualia role
    " " QUALIA: resemblance wrt. $qualia relation
  telic: telic qualia
    about: about qualia

The relations matching QUALIA.

SEMROLE:
  {about}:
  {agent}: An object or a person that performs an action
  {apart}:
  {arg}:
  {class}:
  {const}:
  {eval}:
  {experient}: The receiver of an emotion or a psysical impact
  {form}:
  {func}:
  {iden}:
  {location}: The location where something is situated or happens
  {origin}:
  {patient}: An object or a person that is the subject of the action or the one who is located somewhere
  {poss}:
  {pos}:
  {quant}:
  {recipient}: The receiver of something
  {resem}:
  {time}:

The relations matching SEMROLE.

RULE: relation rule
"(" ANY ")": disambiguation
"*" DISC: down-head in attribution
"<" PRIM ... ":" INTEGER ">": gapping dependent
"@" adverb: valency-bound adverbial
"[" PRIM "]": pattern for secondary syntactic dependency relation formed from primary syntactic dependency relation
"assoc-" QUALIA: associative anaphor wrt. qualia
"{" SEM "}": pattern for secondary semantic dependency realtion formed from primary semantic dependency relation
" " QUALIA: resemblance wrt. $qualia relation
"¤" PRIM: discourse specification
"§" PRIM: morphology specification
ANY "&" ANY: both-and relation
ANY "|" ANY: either-or relation
DISC "*": down-dependent in attribution
PRIM "#": pattern for idiomatic primary dependency
PRIM "/" CONNECTOR: explicit connector
PRIM "/(" CONNECTOR ")": implicit connector
PRIM "/ATTR" INTEGER: attribution
PRIM "{" THEM "}": pattern for primary dependency relation with thematic role

The relations matching RULE.

MISPLACED: misplaced relation

The relations matching -ANY.

Appendix B

Index