

The inventory of linguistic relations used in the Copenhagen Dependency Treebanks

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May 5, 2010

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=0ArjTKYTQS11WcnNUWGJrX3lZTkxDc3QxYmlqWlRXQ1E&hl=en>

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Chapter 1

Introduction

Chapter 2

Top-level relations: ANY

ANY: directed relation
DIM: dimension
 DIM:LEVEL: dimension: linguistic level
 DIM:TYPE: dimension: relation type
 +: segment concatenation
 IDIOM: idiomatic relation
 PRIM: primary dependency relation
 ADJ: adjunct relation
 COMP: complement relation
 SEC: secondary dependency relation

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

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

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

DIM:LEVEL *Dimension: linguistic level.* Dimension specifying the linguistic level of the relation. The
isa DIM classification of relations into linguistic levels is slightly arbitrary (there will be borderline
[6] 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 *Dimension: relation type.* Dimension specifying the type of the relation.
isa DIM Subtypes: + ANTE IDIOM PRIM SEC.
[7]
+ *Segment concatenation* (long: CONCATENATION). A concatenation relation between two ad-
isa DIM:TYPE jacent segments. This relation is used if an indecomposable lexeme has mistakenly been
[29] 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
isa DIM:TYPE expression.
[30] Subtypes: PRIM "#".

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

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

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

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

Chapter 3

Syntactic relations: SYNTAX

SYN: syntax level

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

SYN *Syntax level* (long: SYNTAX). A relation at the syntactic level. Ie, a relation between segments within a sentence, but between different lexical units.
isa DIM:LEVEL [16] Subtypes: SYNADJ SYNCOMP.

3.1 Complement relations: SYNCOMP

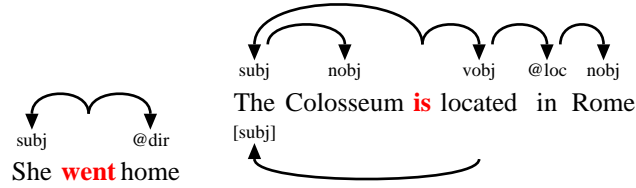
SYNCOMP: syntactic complement
@space: valency-bound location/direction adverbial
@time: valency-bound time adverbial
aobj: adjectival object
avobj: adverbial object
dobj: direct object
fobj: filler object
gobj: genitive object
iobj: indirect object
nobj: nominal object
numa: additive numeral complement
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.

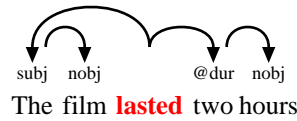
SYNCOMP *Syntactic complement.*
isa COMP SYN [68]

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

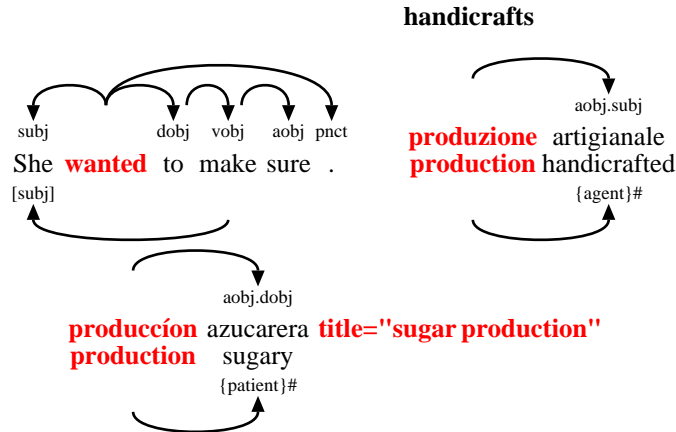
@space *Valency-bound location/direction adverbial.*
isa SYNCOMP [77]
Related types: dir loc.



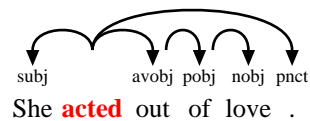
@time *Valency-bound time adverbial.* A valency bound time expression. Formerly analyzed as locative object, but we have decided to provide a general mechanism (@) for converting adverbial relations into valency-bound relations.
isa SYNCOMP [93]
Related types: cont dur ext hab prec succ.



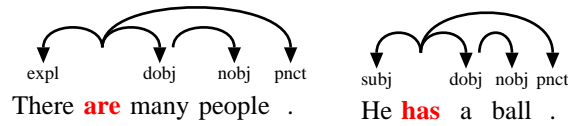
aobj *Adjectival object.* If the adverbial object is part of a NP which nucleus is deverbal, the following annotation possibilities are available: aobj.subj{SEMROLE} aobj.dobj{SEMROLE} aobj.pobj{SEMROLE} aobj.iobj{SEMROLE} The relevant semantic roles in this context are agent, patient, recipient, experient, location.
isa SYNCOMP [84]
Related types: avobj.



avobj *Adverbial object.*
isa SYNCOMP [85]
Related types: aobj part.



dobj *Direct object.*
isa SYNCOMP [73]
Related types: iobj robj.

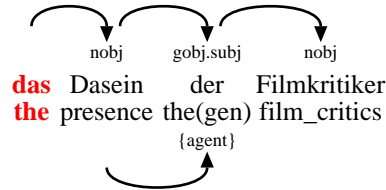


fobj *Filler object.* NO LONGER IN USE; see gapping constructions.
 isa SYNCOMP [86] Related types: GAP.

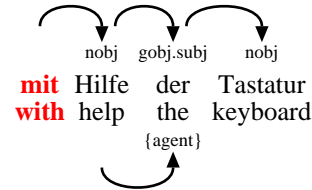
N/A

gobj *Genitive object.* If the genitive 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.
 [75] Related types: SEMROLE attrg.

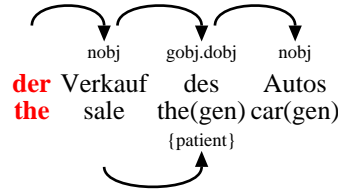
the presence of film critics



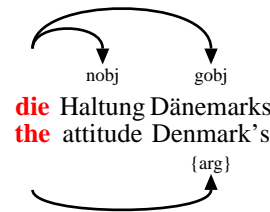
with help from the keyboard



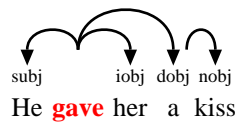
the sale of the car



Denmark's attitude

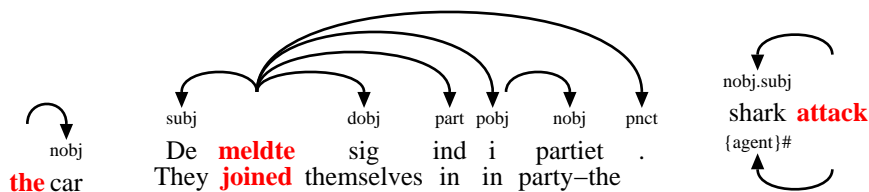


iobj *Indirect object.*
 isa SYNCOMP [76] Related types: dobj.

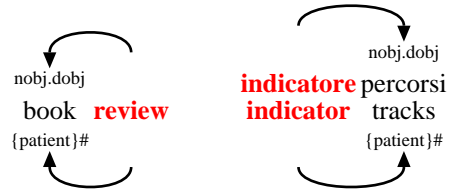


nobj *Nominal object.* If the nominal object is part of a NP which nucleus is deverbal, the following annotation possibilities are available: nobj.subj{SEMROLE} nobj.dobj{SEMROLE} nobj.pobj{SEMROLE} nobj.iobj{SEMROLE} The relevant semantic roles in this context are agent, patient, recipient, experient,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

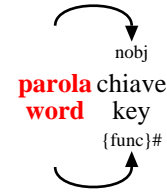
They joined the party.



navigator



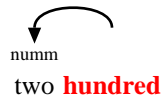
keyword



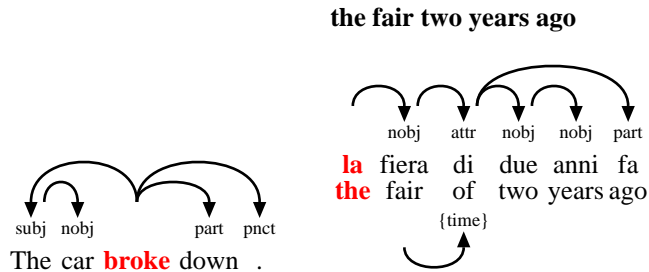
numa *Additive numeral complement.*
isa SYNCOMP [87]
Related types: numm.



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

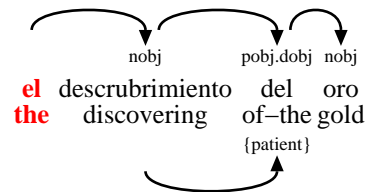
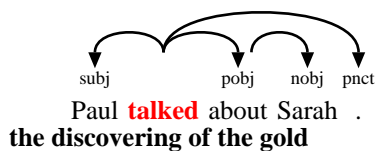
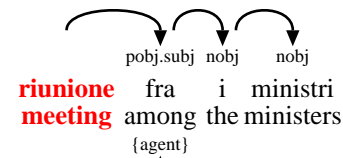


part *Verbal particle.* Verbal particle.
isa SYNCOMP [89]
Related types: avobj.

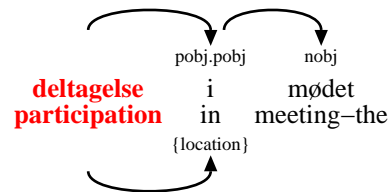


pobj *Prepositional object.* If the prepositional object is part of a NP which nucleus is deverbal, the following annotation possibilities are available: pobj.subj{SEMROLE} pobj.dobj{SEMROLE} pobj.pobj{SEMROLE} pobj.iobj{SEMROLE} The relevant semantic roles in this context are agent, patient, recipient,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

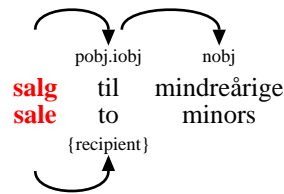
meeting of ministers



participation in the meeting

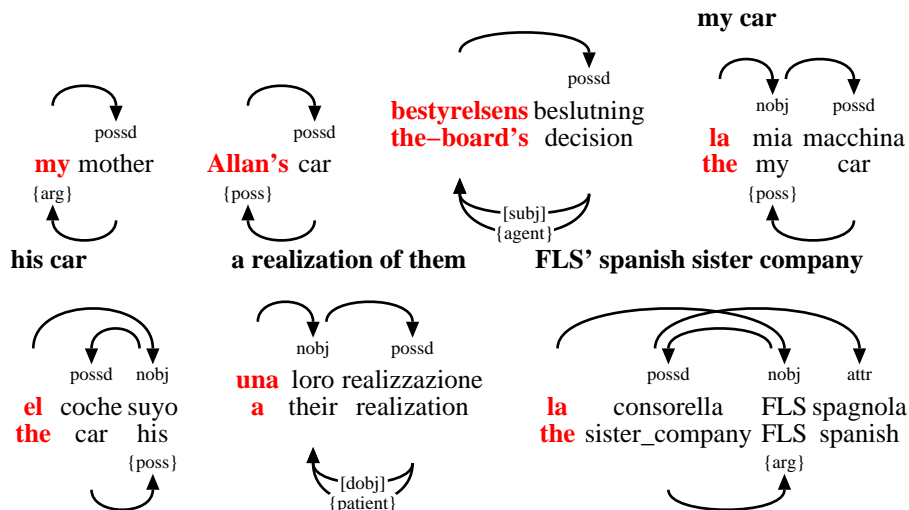


sale to minors



possd *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.



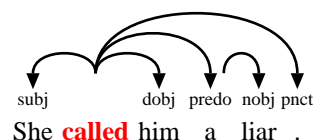
possr *Possessor complement.* NO LONGER IN USE
 isa SYNCOMP The possessor complement in a possessive construction. Possession is understood in a syntactic sense as any construction with a clitic genitive marker, not necessarily as possession in a narrow semantic sense. A better name may be chosen for this relation in the future.
 [91] Related types: poss possd.

N/A

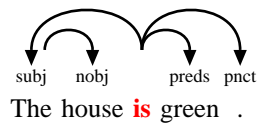
pred *Predicative.*
 isa SYNCOMP Subtypes: predo preds.
 [78] Related types: predo preds.

V->predicative, P->predicative

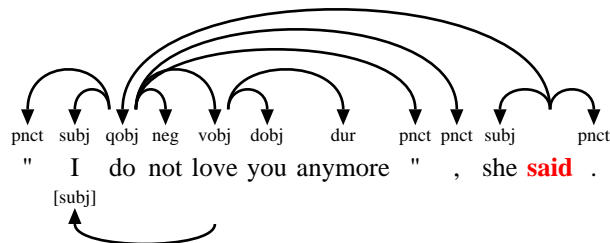
predo *Object predicative.*
 isa pred Related types: preds.
 [80]



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

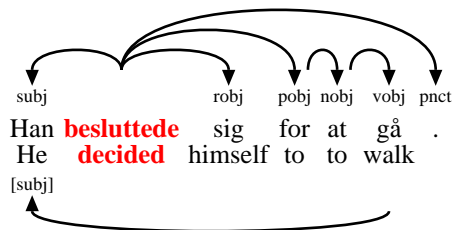


qobj *Quotational object.* A phrase or discourse segment functioning as directly quoted speech, typically by an attribution verb. Indirect speech is analyzed as "dobj" or "nobj".
 isa SYNCOMP Related types: xpl.
 [92]

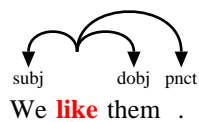


robj *Reflexive object.*
 isa SYNCOMP Related types: dobj.
 [82]

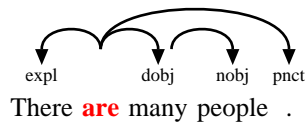
He decided to walk.



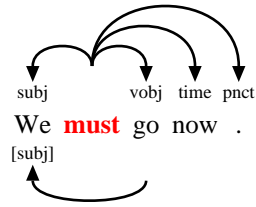
subj *Subject.* A subject relation.
 isa SYNCOMP Subtypes: expl.
 [71] Related types: expl.



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



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



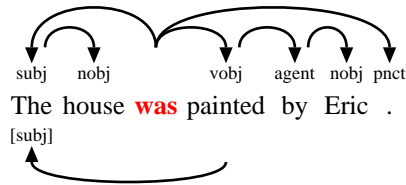
3.2 Adverbial adjunct relations: ADVERB

ADVERB: adverbial
 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 adverbial
 time: time adverbial
 cont: contemporaneity adverbial
 dur: duration adverbial
 ext: extent/frequency adverbial
 hab: habituality adverb
 prec: precedence adverbial
 succ: succession adverbial

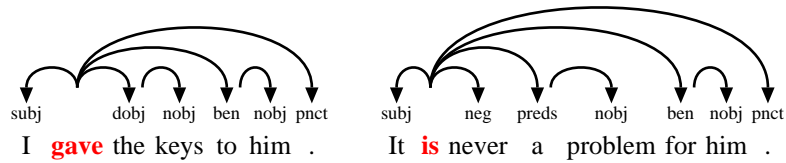
Figure 3.3: The relations matching ADVERB.

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 struct time.
 [132]

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

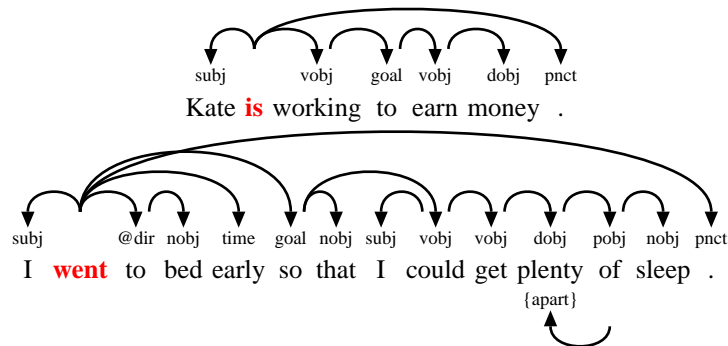


ben *Benefactive adverbial*. Free dative
isa ADVERB Related types: pobj.
[169]

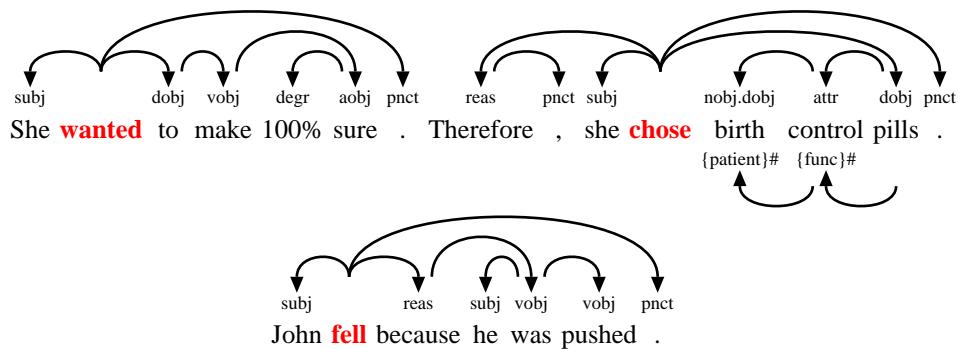


cause *Causation adverbial*. Causation adverbial. Describes why the event occurred.
isa ADVERB Subtypes: goal reas.
[158]

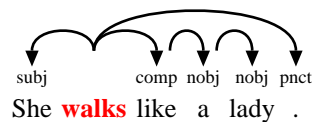
goal *Goal adverbial*. Describes the intended goal of the event/action.
isa cause Related types: reas.
[159]



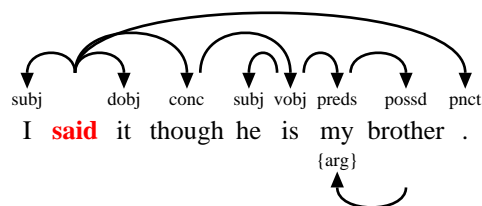
reas *Reason adverbial*. Describes the cause of the event/action.
isa cause Related types: goal.
[160]



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

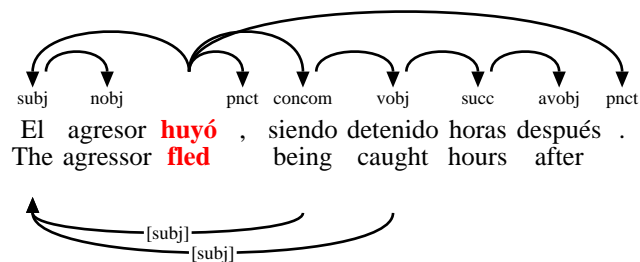


conc *Concession adverbial*. Describes the concession of the event/action.
 isa ADVERB
 [163]

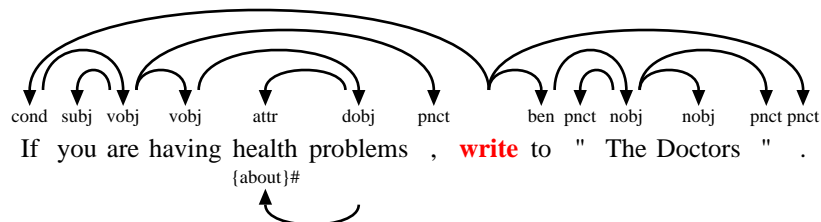


concom *Gerunds in Romance*.
 Related types: vobj.
 isa ADVERB
 [167]

The agressor fled, and got caught hours later.

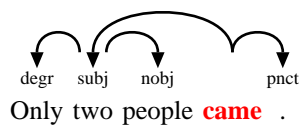


cond *Condition adverbial*. Describes the condition of the event/action.
 Related types: pcond.
 isa ADVERB
 [162]

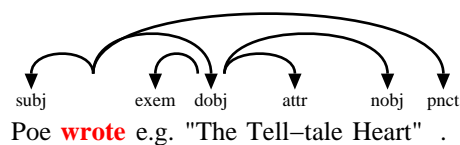


cons *Consequence adverbial*. Describes the consequence of the event/action.
 Related types: xtop.
 isa ADVERB
 [161]

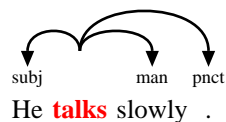
degr *Degree adverbial*. Modifies the object or verbal by degree
 Related types: focal.
 isa ADVERB
 [168]



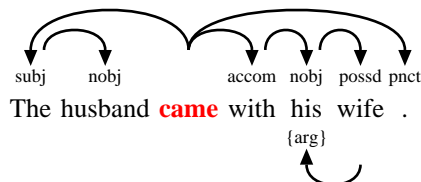
exem *Example adverbial* (deprecated ex). Exemplification; subordinated the object which is added to a list.
 isa ADVERB
 [166]



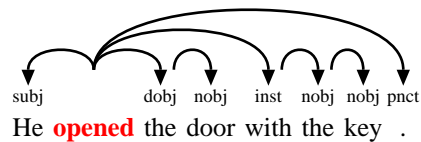
man *Manner adverbial*. The way things are done
 isa ADVERB Subtypes: accom inst.
 [155] Related types: fpredo.



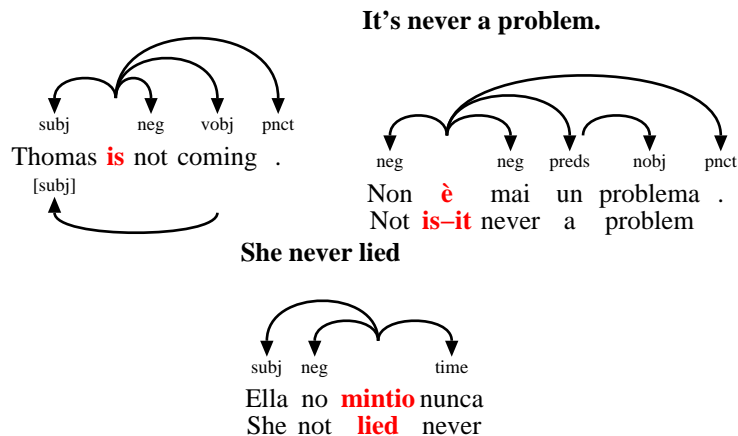
accom *Companionship adverbial* (deprecated comp). Companionship
 isa man Related types: man.
 [156]



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



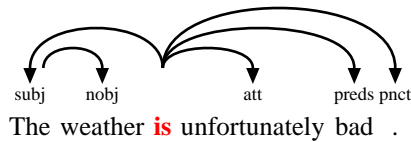
neg *Negation adverbial*. Negation of a verbal
 isa ADVERB
 [171]



other *Other adverbial*.
 isa ADVERB

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

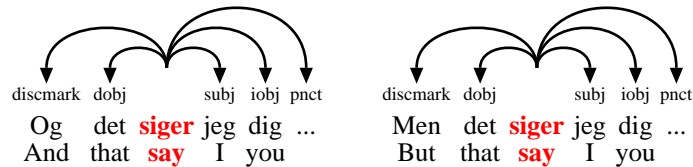
att *Attitude adverbial*. Regarding attitude
 isa prg Related types: epi eval.
 [137]



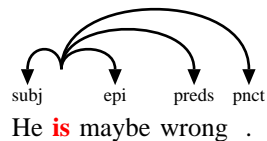
discmark *Sentence-initial discourse marker.* Discourse marker
 isa prg
 [139]
 Related types: coord.

And I'm telling you...

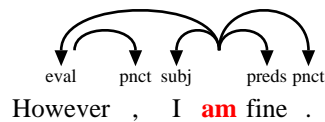
But I'm telling you...



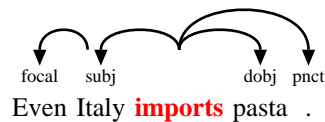
epi *Epistemic adverbial.* Regarding the level of truth in the expression
 isa prg
 [136]
 Related types: att eval.



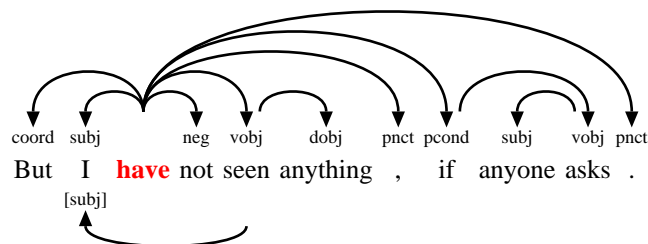
eval *Evaluation adverbial.* Evaluating adverbials
 isa prg
 [138]
 Related types: att epi.



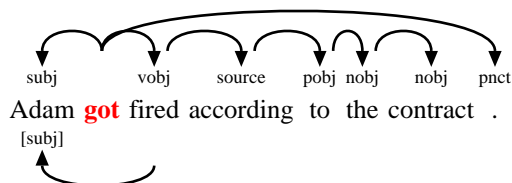
focal *Focalizer adverbial.* Focalization of a noun
 isa prg
 [134]
 Related types: degr.



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

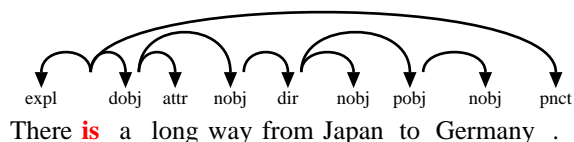


source *Source attribution adverbial.* Reference/source
 isa ADVERB
 [165]

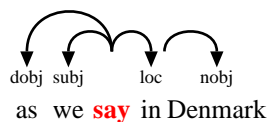


space *Space adverbial.* Space adverbials
 isa ADVERB
 Subtypes: dir loc.
 [152]

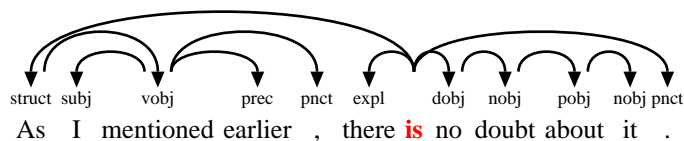
dir *Direction adverbial.* Movement from one place to another; direction
 isa space
 Related types: loc.
 [154]



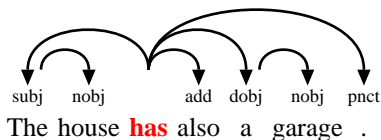
loc *Location adverbial.* Location
 isa space
 Related types: dir.
 [153]



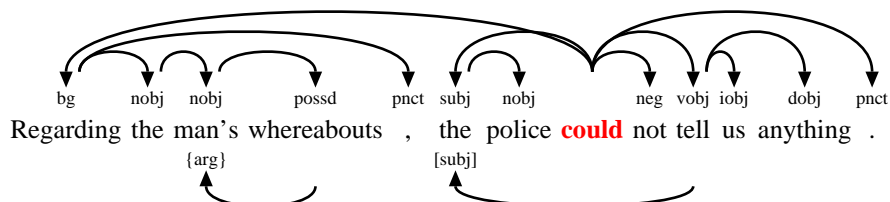
struct *Text-structuring or connective adverbial.* Connectives and text structuring adverbials
 isa ADVERB
 Subtypes: add bg contr elab.
 Related types: bg contr.
 [140]



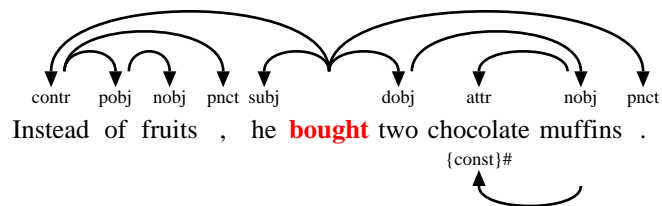
add *Additive adverbial.* Additive information
 isa struct
 [144]



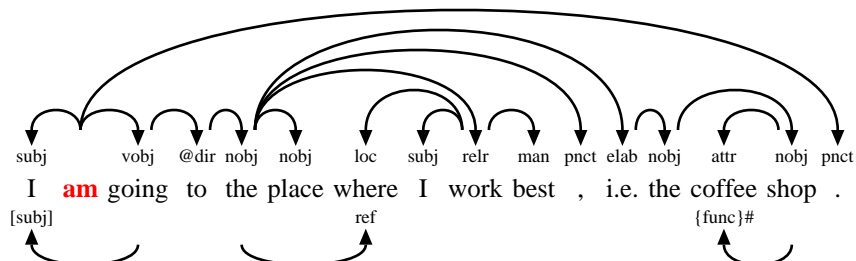
bg *Background adverbial.* Background information
 isa struct
 Related types: struct.
 [141]



contr *Contrast adverbial*. Opposition
 isa struct
 [142]

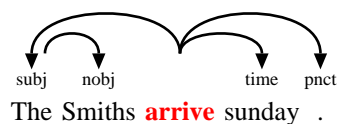


elab *Elaboration adverbial*. More detailed description
 isa struct
 [143]

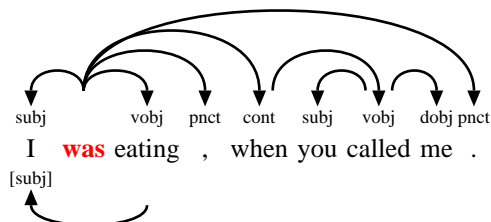


time *Time adverbial*. Time relating adverbials
 isa ADVERB
 Subtypes: cont dur ext hab prec succ.
 [145]

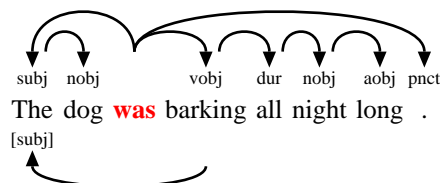
She never lied



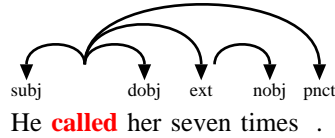
cont *Contemporaneity adverbial*. Contemporaneity
 isa time
 [149]



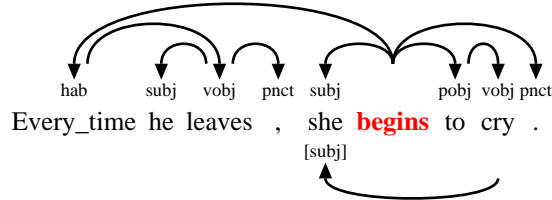
dur *Duration adverbial*. Duration
 isa time
 [146]



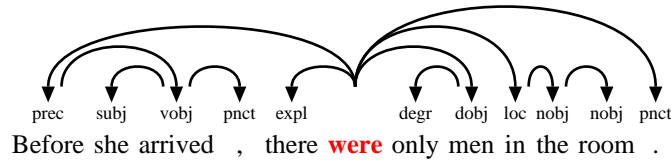
ext *Extent/frequency adverbial* (deprecated freq). Frequency; extention
 isa time
 [151] Related types: dur hab.



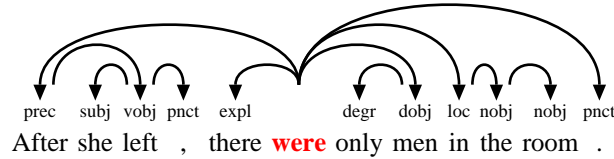
hab *Habituality adverb.* Habitual; repeated habit
 isa time
 [150] Related types: dur ext.



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



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



3.3 Other adjunct relations: SYNADJ

SYNADJ *Syntactic adjunct.*

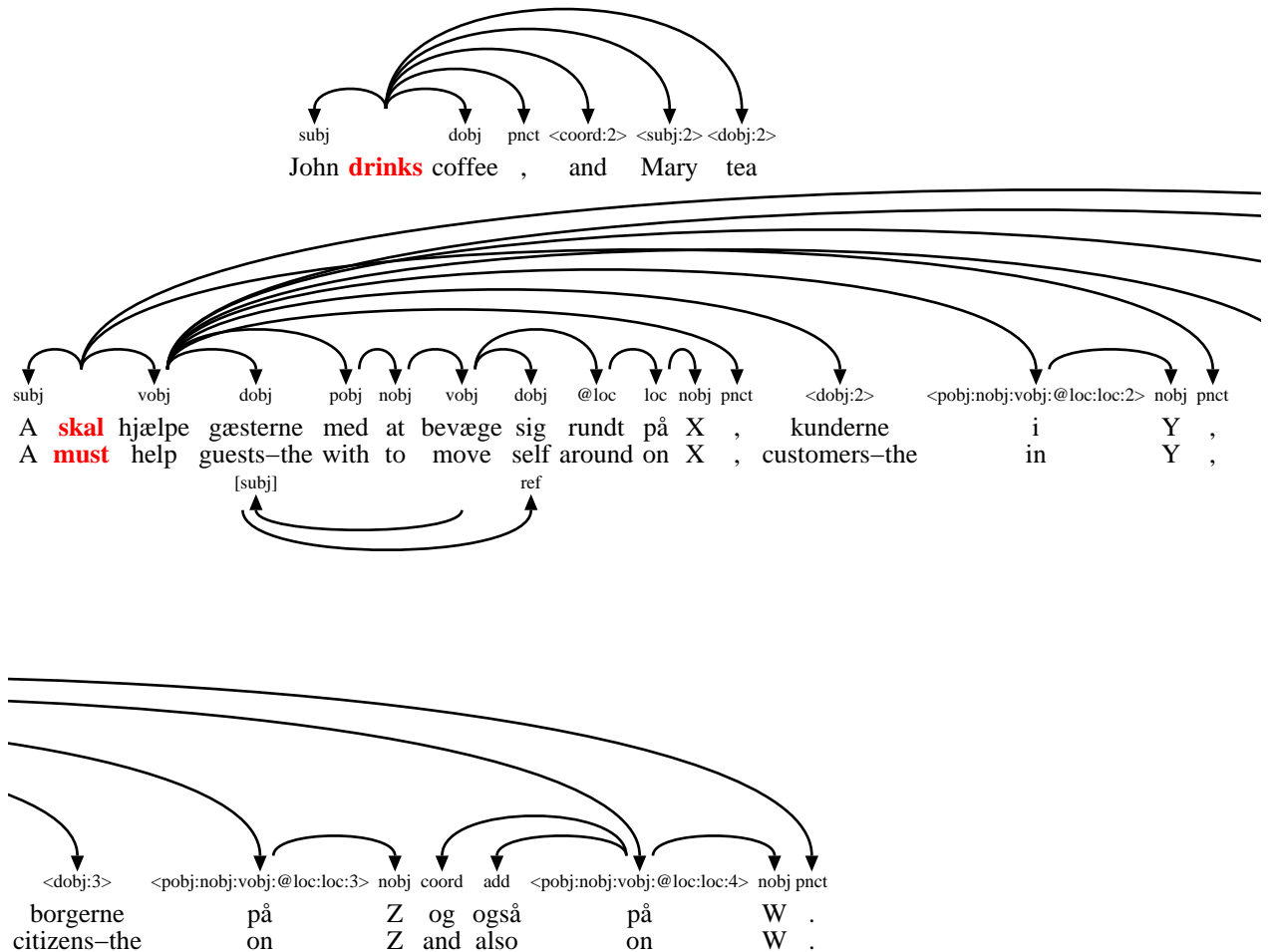
isa ADJ SYN
 [69] Subtypes: ADVERB GAP app attr attrg conj coord correl fpred name punct rel voc xtop.

GAP *Gapping dependent* (long: GAPPING). A relation between a gapping dependent in a secondary conjunct and the head of the first conjunct. In gapping coordinations, the 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.

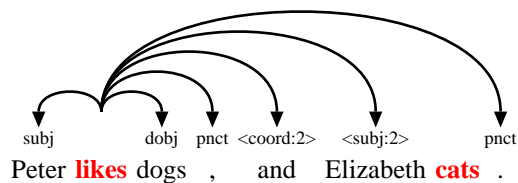
Subtypes: "<" PRIM ... ":" INTEGER ">"

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.

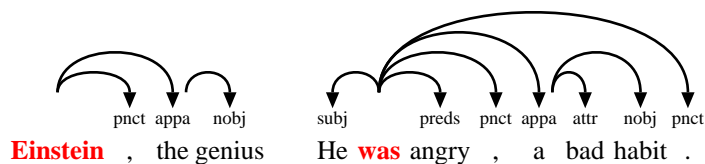


"<" PRIM ... ":" *Gapping dependent.* First conjunct->gapping dependent
 INTEGER ">"
 isa GAP RULE
 [354]

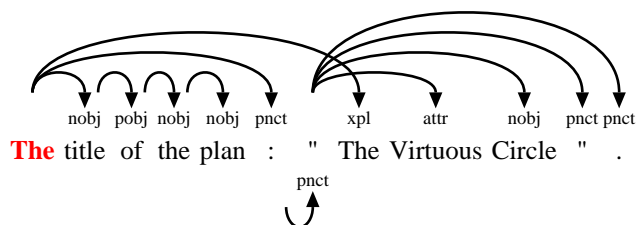


app *Apposition.*
 isa SYNADJ Subtypes: appa appr.
 [107] Related types: appa appr.

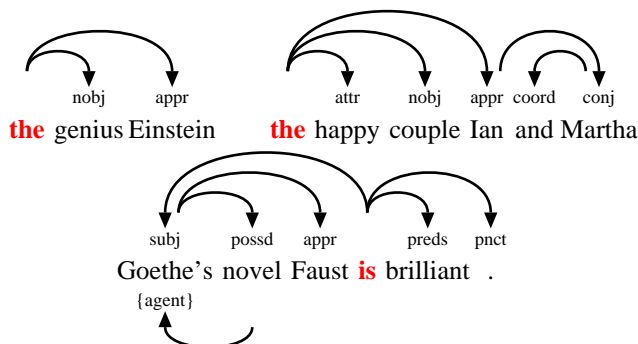
appa *Parenthetic apposition (comma).*
 isa app Subtypes: xpl.
 [108] Related types: appr xpl.



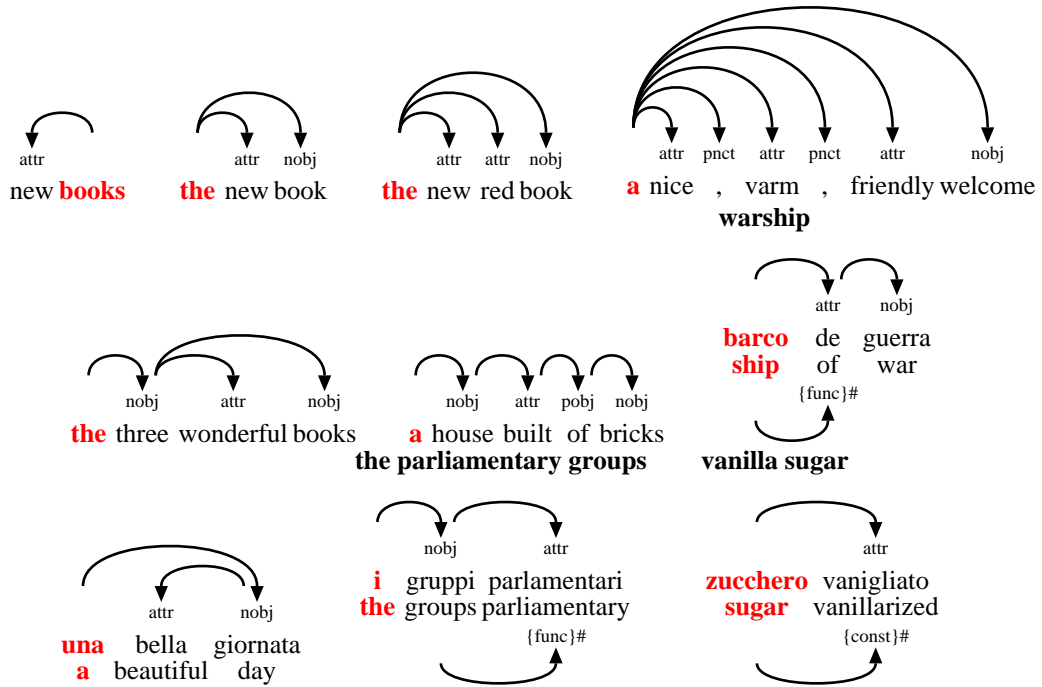
xpl *Explication.* Explication of an NP or VP.
 isa appa Related types: qobj.
 [121]



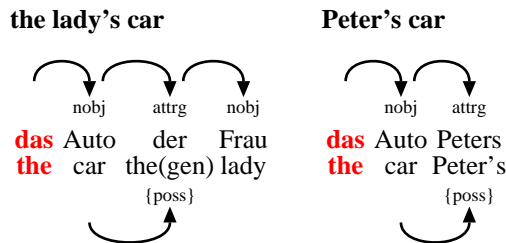
appr *Restrictive apposition (no comma).*
 isa app Related types: appa.
 [109]



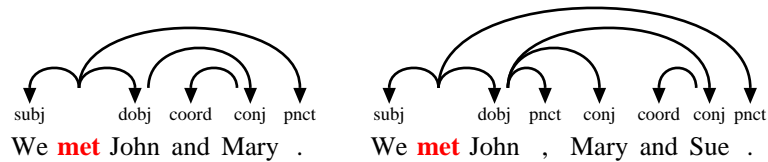
attr *Attributive* (deprecated attrd attrr). In Germanic languages, adjectives modify the determiner;
 isa SYNADJ in Romance languages, adjectives modify the noun even if there is a determiner
 [105] Related types: SEMROLE attrg pobj.



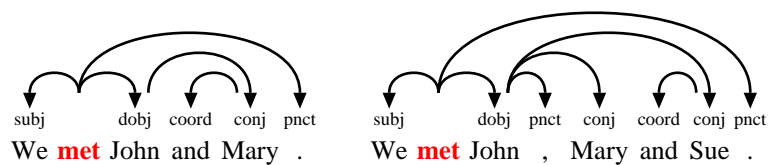
attrg *Genitive attributive.*
isa SYNADJ Related types: SEMROLE gobj.
[106]



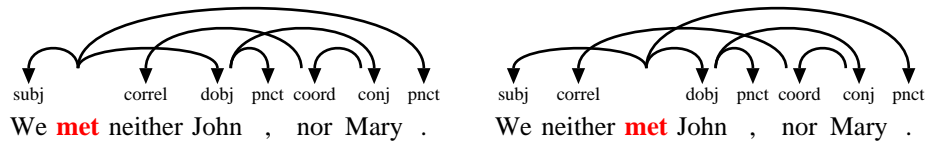
conj *Conjunct relation.*
isa SYNADJ Related types: coord correl.
[97]



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 [98] Related types: conj correl discmark.



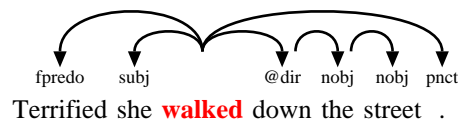
correl *Correlative coordinator relation.*
 isa SYNADJ Related types: conj coord.
 [99]



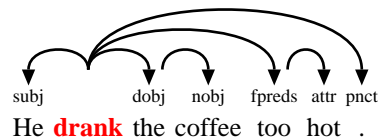
fpred *Free predicative.*
 isa SYNADJ Subtypes: fpredo fpreds.
 [102] Related types: fpredo fpreds.

V→free predicative

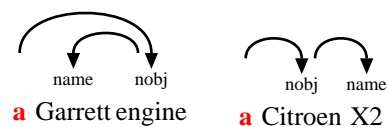
fpredo *Free direct-object predicative.*
 isa fpred Related types: fpreds man.
 [104]



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



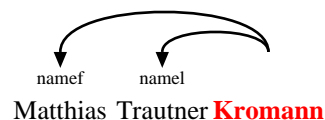
name *Part of name. Part of a name.*
 isa SYNADJ Subtypes: namef namel title.
 [115]



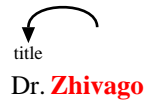
namef *First name. A first name.*
 isa name Related types: namel title.
 [116]



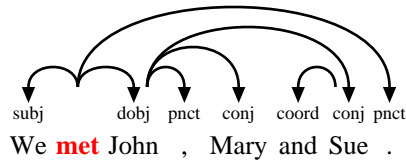
namel *Last name. A second last name*
 isa name Related types: namef title.
 [117]



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



punct *Punctuation.*
 isa SYNADJ
 [100]



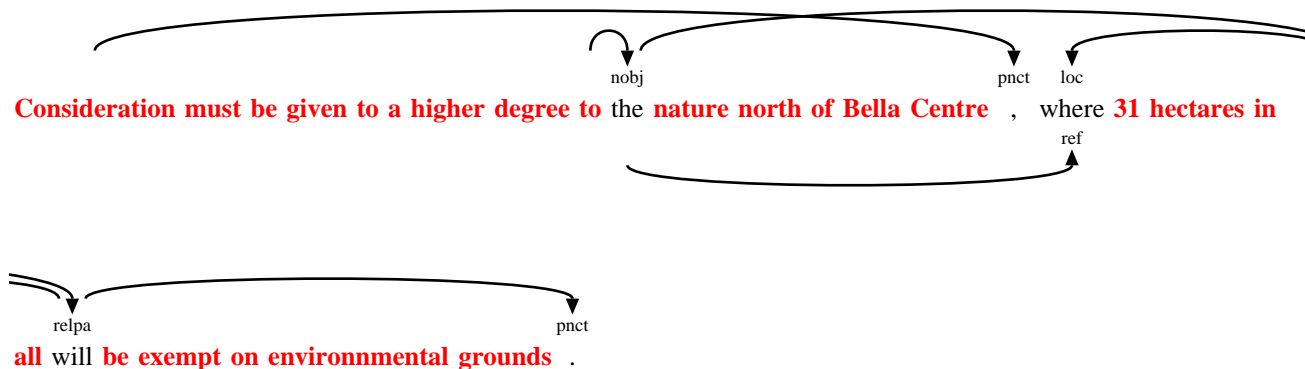
rel *Relative clause.*
 isa SYNADJ Subtypes: relelab relpa relr.
 [110] Related types: relelab relpa relr.

N->V, V->V

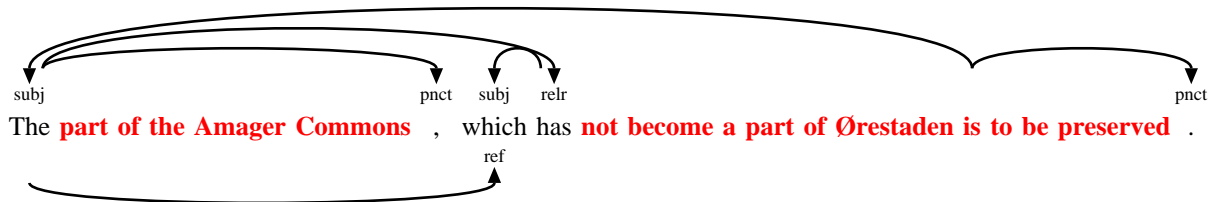
relelab *Elaborating relative clause.* Ledsætning med sætningsantecedent i hovedsætning; da: hvilket,
 isa rel it: il che, cosa che
 [113] Related types: relpa relr.

V->V

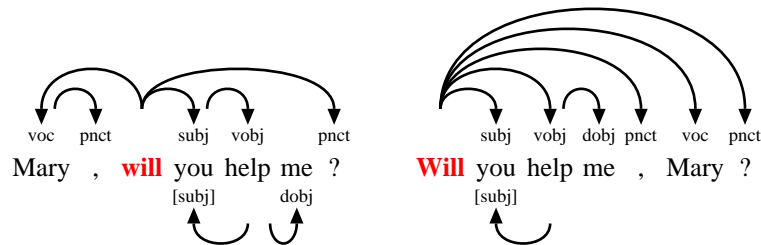
relpa *Parenthetical relative clause.*
 isa rel Related types: relelab relr.
 [112]



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

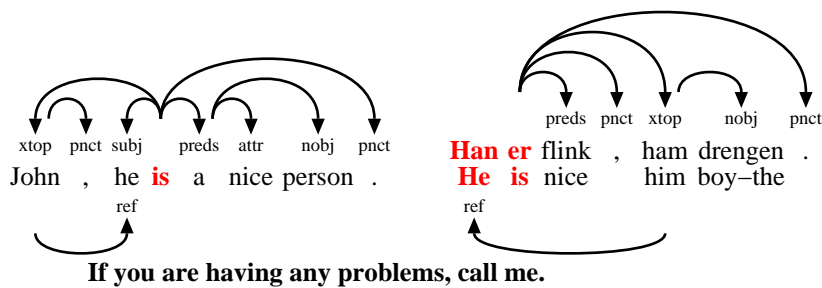


voc *Vocative.* Vocative specification. The person to whom the statement is directed.
 isa SYNADJ
 [120]

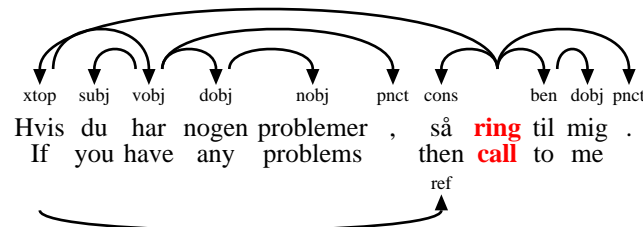


xtop *External topic with resuming pronoun.* An external topic is a sentence-initial NP whose only function is to provide the antecedent for a pronoun later in the sentence. Eg in "John, he is a nice person". Here "John" is the "xtop" of "is", and "he" is the subject of "is".
 isa SYNADJ
 [114] Related 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 *Morphology level* (long: MORPHOLOGY). A relation at the morphological level. Ie, a relation
isa DIM:LEVEL between segments within a word.
[15] Subtypes: "§" PRIM MORPHCOMP MORPHDERIV.

"§" PRIM *Morphology specification.*
isa MORPH RULE
[357]

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)
isa MORPH elements which could potentially be used as stems. (A compound contains at least two
[252] roots.)
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 'luxusbil'

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)

MORPHDERIV: derivational semantic relations

Figure 4.3: 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

Figure 4.4: The relations matching PREFIX.

4.2 Derivational relations: MORPHDERIV

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

4.2.1 Prefix relations: PREFIX

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

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

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
[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

TIMES *Time.* Prefix conveys time in a broad sense.
isa PREFIX

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

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

4.2.2 Suffix relations: SUFFIX

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

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

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

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

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

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

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.

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

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

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

DENOM:poss isa DENOM [327]	<i>Noun-adjective derivation (possession).</i> 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]	<i>Noun-adjective derivation (relational).</i> Suffix creates denominal adjectives with a relational meaning. Subtypes: DENOM:rel.deono DENOM:rel.norm.
DENOM:rel.deono isa DENOM:rel [323]	<i>Noun-adjective derivation (naming).</i> Suffix creates relational adjectives with the meaning of "naming". Subtypes: DENOM:rel.deono.pers DENOM:rel.deono.place.
DENOM:rel.deono.pers isa DENOM:rel.deono [324]	<i>Noun-adjective derivation (naming persons).</i> Suffix creates relational adjectives with the meaning of "naming" persons. Cervantino 'som har at gøre med Cervantes'
DENOM:rel.deono.place isa DENOM:rel.deono [325]	<i>Noun-adjective derivation (naming places).</i> 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]	<i>Noun-adjective derivation (normal).</i> Suffix creates relational adjectives with a "normal" meaning aspect. (denominal adjective: presidential = president +ial/DENOM:rel.norm)
DENOM:resem isa DENOM [326]	<i>Noun-adjective derivation (resemblance).</i> 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]	<i>Adjective-numeral derivation.</i> Suffix creates denumeral adjectives in a broad sense. Subtypes: DENUM:mult DENUM:ord DENUM:part.
DENUM:mult isa DENUM [334]	<i>Adjective-multiplicative derivation.</i> Suffix creates multiplicative numerals. "kardinal=cinco – multiplikativ=quintuplo" 'fem/femdobbelte'
DENUM:ord isa DENUM [332]	<i>Adjective-ordinal derivation.</i> Suffix creates ordinals. "kardinal=dos – ordinal=segundo" 'to/anden'

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

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

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

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

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

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

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

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

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

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

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

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

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

"que V" (conmovedor – "que conmueve" 'gribende/der giber')

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

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

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

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

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

'transportabel/maskine som kan blive transporteret/transporteres

DEVA:pas.poten *Verb-adjective derivation (passive participles)* (long: DEVERB:pas.poten). Suffix creates passive adjectives with the form of participles.
isa DEVA:pas [318]

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

blevet/er/bliver købt"

DEVA:pas.part *Verb-adjective derivation (passive)* (long: DEVERB:pas.part). Suffix creates passive adjectives.
isa DEVA [317]

DEVN *Verb-noun derivation* (long: DEVERBN, deprecated PRED). Suffix creates deverbal nouns in a broad sense.
isa SUFFIX [291] Subtypes: DEVN:agent DEVN:core DEVN:exper DEVN:inst DEVN:loc DEVN:other DEVN:recip DEVN:result.

DEVN:agent *Verb-noun derivation (agent)*. Suffix creates deverbal nouns absorbing the agent role.
isa DEVN [292]

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

DEVN:core *Verb-noun derivation (core)*. Suffix creates deverbal nouns expressing a nominalized version of the situation denoted by the original verb.
isa DEVN [294]

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

DEVN:exper *Verb-noun derivation (experiencer)*. Suffix creates deverbal nouns absorbing the experiencer role.
isa DEVN [293]

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

DEVN:inst *Verb-noun derivation (instrument)*. Suffix creates deverbal nouns expressing the instrument related to the meaning of the original noun.
isa DEVN [298]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- NOPRED:other** *Noun-noun derivation (other).* If in doubt about the meaning conveyed by the suffix
isa NOPRED
- NOPRED:result** *Noun-noun derivation (result).* Suffix creates non-predicative nouns expressing a result.
isa NOPRED
[303] **(result derivation: puñalada 'knivstik' = puñal +ada/NOPRED:result)**
- NOPRED:script** *Noun-noun derivation (script).* Suffix creates non-predicative nouns expressing a script/notion related to the original noun.
isa NOPRED
[309] **(script derivation: pontaje 'brobetaling' = puente +aje/NOPRED:script)**
- NOPRED:set** *Noun-noun derivation (set).* Suffix creates non-predicative nouns expressing a set.
isa NOPRED
[306] **(set derivation: perrada 'hundekobbel' = perro +ada/NOPRED:set)**
- NOPRED:temp** *Noun-noun derivation (temporal).* Suffix creates non-predicative nouns expressing a temporal aspect.
isa NOPRED
[305] **(temporal derivation: temporada 'tidsrum/sæson' = tiempo +ada/NOPRED:temp)**
- PEJ** *Pejoration.* Suffix conveys a pejorative sense.
isa SUFFIX
[286] **(pejorative: vinacho 'bad vine' = vino +acho/PEJ)**
- QUAL** *Adjective derivation.* Suffix creates deadjectival nouns.
isa SUFFIX
[300] **(deadjectival noun: bitterness = bitter +ness/QUAL)**

Chapter 5

Discourse relations: DISCOURSE

DISC: discourse level
"α" PRIM: discourse specification

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

DISC *Discourse level* (long: DISCOURSE). A relation at the discourse level. Ie, a relation between segments in different sentences or clauses.
isa DIM:LEVEL
[17] Subtypes: "α" PRIM DISCFUNC DISCSEM.

"α" PRIM *Discourse specification*. A primary syntactic relation that has been used as a discourse relation for stylistic purposes.
isa DISC RULE
[356]

5.1 Functional relations: DISCFUNC

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

Figure 5.2: The relations matching DISCFUNC.

DISCFUNC *Functional discourse relation*. The relation between governing and depending text segments is defined functionally: the depending text segment has illocutionary, structuring or enhancing function
isa ADJ DISC
[203] Subtypes: ANSW CONSOL DIREC EXPR INTACT QUEST.

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

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

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

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

[da] Fordi, Eftersom

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

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

e.g. imperatives

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

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

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

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

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

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

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

QUEST *Question*. The dependent text segment contains a question with or without an answer
 isa DISCFUNC [238]

5.2 Semantic relations: DISCSEM

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

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

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

[da] Nemlig; [it] Infatti

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.

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
 isa DISCSEM expected consequence or effect
 [224] Related types: conc.

[da] Dog, Skønt

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

[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 Subtypes: CONTR:dir CONTR:prg.
 [231]

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

[da] Men, Derimod

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

[da] Men

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

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

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

[da] Sådan

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

[da] Eller

DISJ:dir	<i>Direct disjunction.</i> The disjunction lies between the governing and dependent text segment
isa DISJ	
[235]	
DISJ:prg	<i>Pragmatic disjunction.</i> The disjunction lies between the dependent and an inferred text segment
isa DISJ	
[236]	
ELAB	<i>Elaboration.</i> S adds more information or detail on N
isa DISCSEM	Subtypes: ELAB:exem ELAB:exp ELAB:part ELAB:rest.
[215]	
ELAB:exem	<i>Exemplification.</i> S gives examples of elements or phenomena mentioned in N
isa ELAB	
[216]	
	[en] For example
ELAB:exp	<i>Expansion</i> (deprecated ELAB:spec). S develops and expands knowledge of N; may be difficult to distinguish from CONJ
isa ELAB	
[217]	
	[it] Cioè
ELAB:part	<i>Part of relation.</i> S is a concrete part of N
isa ELAB	
[218]	
	[da] Herunder, Heri
ELAB:rest	<i>Restatement.</i> S states N again in a different way
isa ELAB	
[219]	
	[da] Dvs.; [it] Ossia, In altre parole, Cioè; [en] In other words, Or
JOINT	<i>No clear relation.</i> The dependent text segment adds a completely new content without any clear discourse relation to the governing segment
isa DISCSEM	
[237]	
STRUCT	<i>Structural relation.</i>
isa DISCSEM	Subtypes: STRUCT:prep STRUCT:rep.
[228]	
STRUCT:prep	<i>Preparation.</i> Dependent text segment "prepares" for the following and governing text, e.g. headings, titles
isa STRUCT	
[229]	
STRUCT:rep	<i>Repaired.</i> Dependent text segment is interrupted and unfinished and "repaired" by the following and governing text segments, which completes it
isa STRUCT	
[230]	
TIME	<i>Temporal relation</i> (deprecated CIRCUM). There is a clear temporal relation between N and S
isa DISCSEM	Subtypes: TIME:cont TIME:prec TIME:prec\$ TIME:succ TIME:succ\$.
[220]	
TIME:cont	<i>Contemporaneity.</i> S is contemporary with N (now includes abolished TIME:dur)
isa TIME	
[221]	
	[da] Samtidig, Mens, Så længe, Da
TIME:prec	<i>Temporal precedence.</i> S precedes N
isa TIME	
[222]	
	[en] Earlier, Some days before
TIME:prec\$	<i>Temporal precedence.</i> Prefix conveys precedence.
isa TIME	
[263]	

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

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

[en] Later, Some time afterwards

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

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

Chapter 6

Antecedent relations: ANTECEDENT

ANTE: antecedent 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

Figure 6.1: The relations matching ANTECEDENT.

ANTE isa DIM:TYPE [28]	<i>Antecedent relation</i> (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]	<i>Associative anaphor</i> . 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]	<i>Associative anaphor wrt. qualia</i> . Anaphor denotes entity which is associated with antecedent
assoc-agentive isa assoc [193]	<i>Associative anaphor (agentive)</i> (deprecated assoc-agent?).
assoc-const isa assoc [194]	<i>Associative anaphor (constitutive)</i> (deprecated assoc-loc?).
assoc-formal isa assoc [195]	<i>Associative anaphor (formal)</i> (deprecated assoc-form?).
assoc-telic isa assoc [196]	<i>Associative anaphor (telic)</i> (deprecated assoc-scope?).
coref isa ANTE [185]	<i>Coreference</i> . Anaphor denotes same entity as antecedent Subtypes: coref-id coref-part coref-prg coref-res coref-var ref .

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 [186]
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 [190]
 [188]
coref-res *Resumptive anaphor.*
 isa coref [188]
coref-var *Lexical variation coreference.* A car -> the vehicle // a yellow car -> the car
 isa coref [180]
ref *Syntactically determined coreference.* Syntactically determined coreference (eg, relative pronouns, external topics)
 isa coref [187]
 [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 [185]
 Subtypes: coref-id coref-part coref-prg coref-res coref-var ref.
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 [186]
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 [190]
 [188]
coref-res *Resumptive anaphor.*
 isa coref [188]
coref-var *Lexical variation coreference.* A car -> the vehicle // a yellow car -> the car
 isa coref [180]
ref *Syntactically determined coreference.* Syntactically determined coreference (eg, relative pronouns, external topics)
 isa coref [187]
 [184]

antecedent→anaphor

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`.

6.2 Associative antecedent relations: `assoc`

assoc	<i>Associative anaphor.</i> Anaphor denotes entity which is associated with antecedent
isa ANTE	Subtypes: "assoc-" QUALIA assoc-agentive assoc-const assoc-formal assoc-telic.
[191]	
"assoc-" QUALIA	<i>Associative anaphor wrt. qualia.</i> Anaphor denotes entity which is associated with antecedent
isa RULE assoc	
[192]	
assoc-agentive	<i>Associative anaphor (agentive)</i> (deprecated <code>assoc-agent?</code>).
isa assoc	
[194]	
assoc-const	<i>Associative anaphor (constitutive)</i> (deprecated <code>assoc-loc?</code>).
isa assoc	
[193]	
assoc-formal	<i>Associative anaphor (formal)</i> (deprecated <code>assoc-form?</code>).
isa assoc	
[195]	
assoc-telic	<i>Associative anaphor (telic)</i> (deprecated <code>assoc-scope?</code>).
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
isa DIM:LEVEL functors, arguments, and modifiers.
[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 Subtypes: const formal resem telic.
[31]

const *Constitutive qualia.* Relates to material or part-whole qualia

isa QUALIA
[38]

N->P.material/part

formal *Formal qualia.* Relates to hyperonym (super type) wrt. form, dimension, quality, shape,
isa QUALIA size.

[35] Subtypes: agentive location.

agentive *Agentive qualia.* Relates to agentive qualia

isa formal
[36]

N->P.agent

location *Location qualia.*
 isa formal
resem *Resemblance wrt. qualia role.* Resemblance wrt. some qualia role
 isa QUALIA Subtypes: " " QUALIA.
 [41]

N->P.resem

" " QUALIA *Resemblance wrt. \$qualia relation.*
 isa RULE resem
telic *Telic qualia.* Relates to purpose qualia
 isa QUALIA Subtypes: about.
 [39]
about *About qualia.* Relates to hyponym (subtype)
 isa telic
 [40]

7.2 Thematic role relations: SEMROLE

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.

SEMROLE . 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.
 isa SEM [45]
 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

An object or a person that performs an action. Often generated by subject relation

[62]

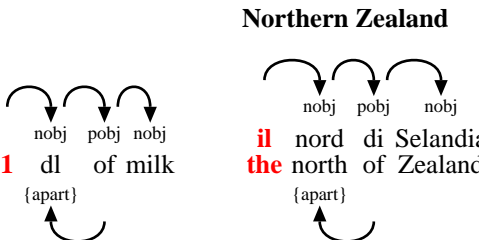


{apart}

isa SEMROLE

(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.

[56]

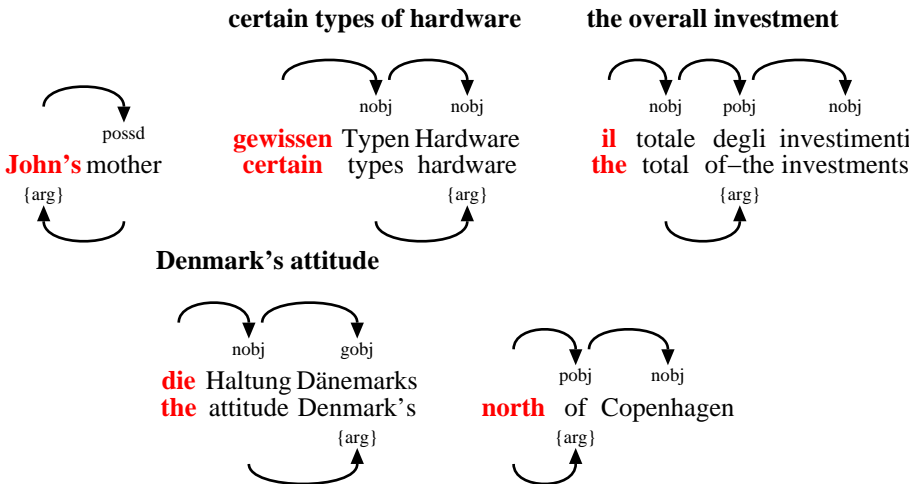


{arg}

isa SEMROLE

(long: argument).

[61]

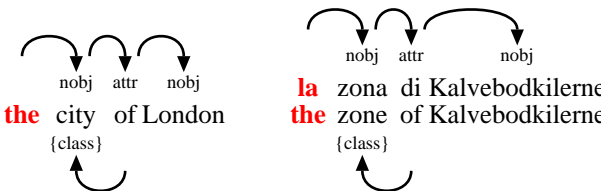


{class}

isa SEMROLE

. Please note that the semantic relation goes from the satellite to the nucleus in opposition to the main part of the other semantic roles.

[57]

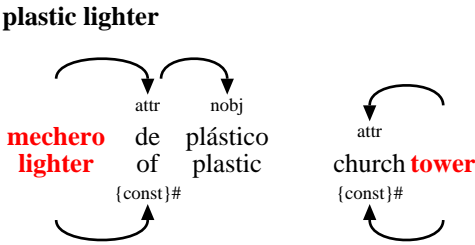


{const}

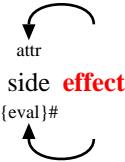
isa SEMROLE

(long: constituent).

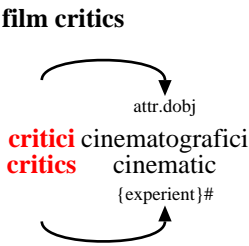
[46]



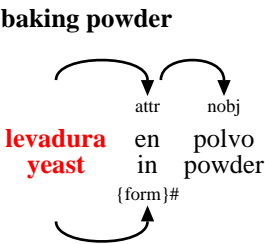
{eval} (long: evaluation).
isa SEMROLE
[53]



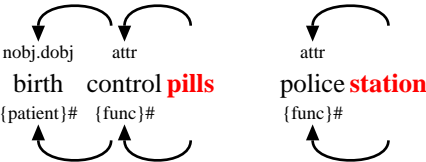
{experient} *The receiver of an emotion or a psysical impact. Often generated by direct object*
isa SEMROLE
[64]



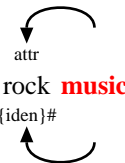
{form} .
isa SEMROLE
[59]



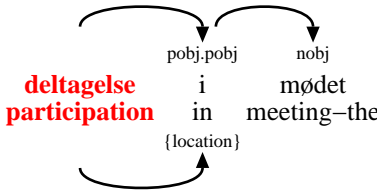
{func} (long: function).
isa SEMROLE
[49]



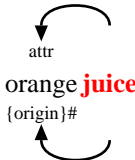
{iden} (long: identity).
isa SEMROLE
[60]



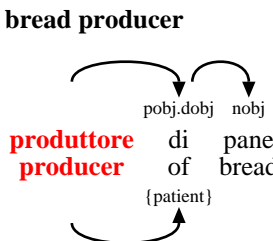
{location} isa SEMROLE [66]	<i>The location where something is situated or happens.</i> Often generated by prepositional object
--	---



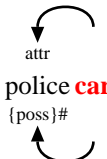
{origin} .
isa SEMROLE
[48]



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



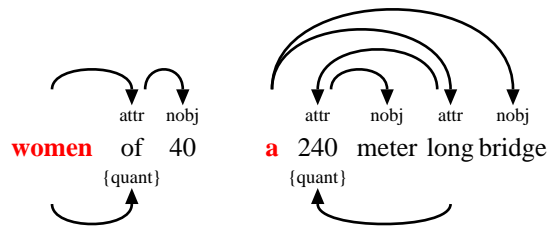
{poss} (long: possession).
isa SEMROLE
[50]



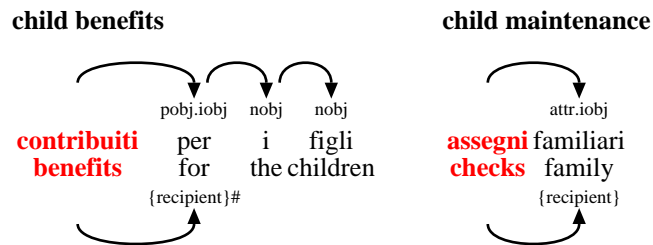
{pos} (long: position).
isa SEMROLE
[51]



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

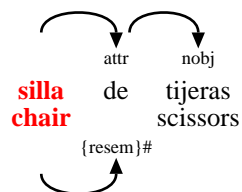


{recipient} *The receiver of something. Often generated by indirect object*
 isa SEMROLE
 [65]



{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 relation formed from primary semantic dependency relation
  " " QUALIA: resemblance wrt. $qualia relation
  "α" PRIM: discourse specification
  "$" 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 Subtypes: "(" ANY ")" "*" DISC "<" PRIM ... ":" INTEGER ">" "@" adverb "[" PRIM "]" "assoc-" QUALIA
 [8] "{" SEM "} " " QUALIA "α" PRIM "\$" PRIM ANY "&" ANY ANY "|" ANY DISC "**" PRIM "#" PRIM "/"
 CONNECTOR PRIM "/"(" CONNECTOR ") PRIM "/"ATTR" INTEGER PRIM "{" THEM "}".

"(" ANY ")" *Disambiguation.*

isa RULE

"*" DISC *Down-head in attribution.* The head in the relation is one step further down in the attribution chain

isa RULE

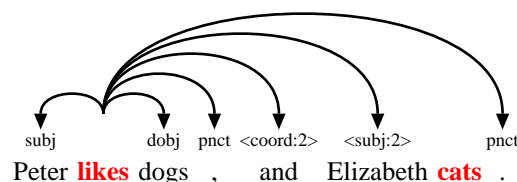
[366]

<" PRIM ... ":" *Gapping dependent.* First conjunct->gapping dependent

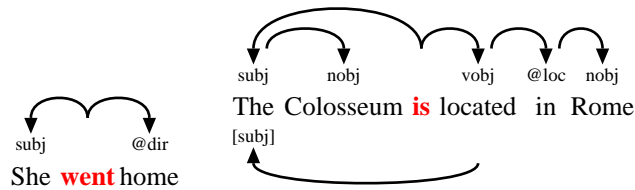
INTEGER ">"

isa GAP RULE

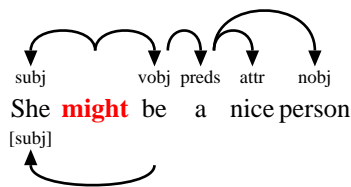
[354]



"@" adverb *Valency-bound adverbial.* A complement relation which can be interpreted as an obligatory, valency-bound adverbial relation.
 isa COMP RULE [368] Related types: cont dir dur ext hab loc prec succ time.

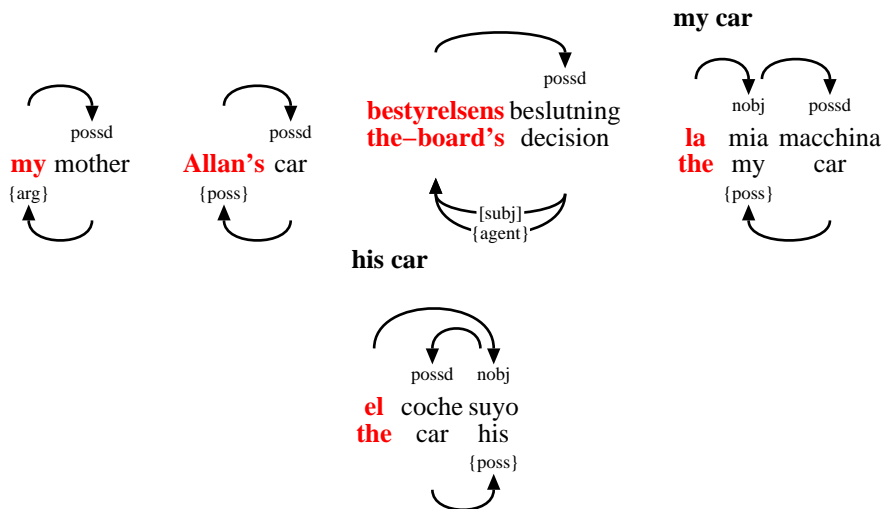


"[" PRIM "]" *Pattern for secondary syntactic dependency relation formed from primary syntactic dependency relation.* Governor->secondary syntactic dependent; \$PRIM must be non-secondary
 isa RULE SEC [352] Related types: "[" "]" \$PRIM.



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

"{" SEM "}" *Pattern for secondary semantic dependency relation formed from primary semantic dependency relation.* Governor->secondary semantic dependent; \$PRIM must be non-secondary
 isa RULE SEC [353] Related types: "[" "]" \$PRIM.



" " QUALIA *Resemblance wrt. \$qualia relation.*
 isa RULE resem [190]

"α" PRIM *Discourse specification.* A primary syntactic relation that has been used as a discourse relation for stilistic purposes.
 isa DISC RULE [356]

"\$" PRIM *Morphology specification.*
 isa MORPH RULE [357]

ANY "&" ANY *Both-and relation.* Both relations hold
 isa RULE [358]

ANY

"|"

ANY

isa

RULE

Either-or relation. One of the relations holds

DISC

[939]

isa

RULE

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

PRIM

"#"

isa

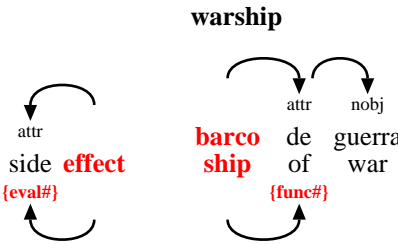
IDIOM

RULE

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

[367]

[350]



PRIM

"/"

CONNECTOR

Explicit connector. The discourse relation has explicit connector \$CONNECTOR

PRIM

"/"

CONNECTOR

Implicit connector. The discourse relation has implicit connector \$CONNECTOR

PRIM

"/"

ATTR

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

[364]

[365]

PRIM

"{"

THEM

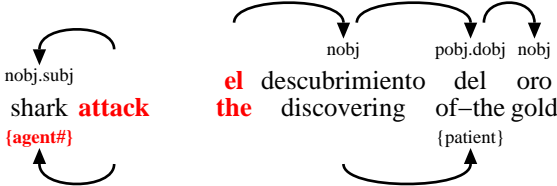
"}

isa

RULE


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

[351]



Chapter 9

Relations misplaced outside the ANY hierarchy



MISPLACED: misplaced relation

Figure 9.1: The relations matching -ANY.

MISPLACED *Misplaced relation.* A relation is misplaced if it fails to have ANY as a transitive super type.
[9] 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.

ANY: directed relation
DIM: dimension
 DIM:LEVEL: dimension: linguistic level
 DIM:TYPE: dimension: relation type
 +: segment concatenation
 IDIOM: idiomatic relation
 PRIM: primary dependency relation
 ADJ: adjunct relation
 COMP: complement relation
 SEC: secondary dependency relation

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

SYN: syntax level

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 adverbial
 time: time adverbial
 cont: contemporaneity adverbial
 dur: duration adverbial
 ext: extent/frequency adverbial
 hab: habituality adverbial
 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
 "α" 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: antecedent 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

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