Appendix A

Appendix: Examples

This appendix provides examples of how the EAGLES Subcategorisation scheme may be applied to a number of languages.

A.1 Applying the EAGLES subcategorisation standards

By way of summary, here is a description in feature structure format of the frame and frame-list representations which have been used to compile sample applications of the EAGLES Subcategorisation scheme.

$$
\left[\begin{array}{l}
\text{FRAME\_ID } \textit{integer} \\
\text{SLOTS } \left\langle \left[\begin{array}{l}
\text{SLOT\_ID } \textit{integer} \\
\text{OPTIONALITY } \textit{optionality} \\
\text{REALISATIONS } \left\langle \left[\begin{array}{l}
\text{REALISATION\_ID } \textit{integer} \\
\text{CONTROLLED\_BY } \left[\begin{array}{l} \text{SLOT\_ID } \textit{integer} \\ \text{REALISATION\_ID } \textit{integer} \end{array}\right] \\
\text{OBVIATES } \left[\begin{array}{l} \text{SLOT\_ID } \textit{integer} \\ \text{REALISATION\_ID } \textit{integer} \end{array}\right] \\
\text{IN\_ORDER } \textit{in\_order} \\
\text{SYNTAX } \left[\begin{array}{l}
\text{CATEGORY } \left[\begin{array}{l} \text{CAT\_LABEL } \textit{cat\_label} \\ \text{CAT\_FEATURES } \textit{cat\_features} \end{array}\right] \\
\text{FUNCTION } \left[\begin{array}{l} \text{FUNC\_LABEL } \textit{func\_label} \\ \text{PRED } \textit{pred} \end{array}\right]
\end{array}\right] \\
\text{SEMANTICS } \left[\begin{array}{l}
\Theta\text{\_ROLE } \left[\begin{array}{l} \Theta\text{\_ID } \textit{integer} \\ \Theta\text{\_FEATURES } \Theta\textit{\_features} \end{array}\right] \\
\text{SEM\_CLASS } \textit{sem\_class}
\end{array}\right]
\end{array}\right]^{+} \right\rangle
\end{array}\right]^{*} \right\rangle \\
\text{SELF } \textit{cat\_features} \\
\text{CONTROL } \textit{control} \\
\text{REL\_ORDER } \left\langle \left[\begin{array}{l}
\text{BEFORE\_SLOT } \textit{integer} \\
\text{AFTER\_SLOT } \textit{integer} \\
\text{BEFORE\_REALISATION } \textit{integer} \\
\text{AFTER\_REALISATION } \textit{integer}
\end{array}\right]^{*} \right\rangle
\end{array}\right]
$$

$$\left[\begin{array}{ll} \text{FRAME\_LIST} & \langle\, \textit{frame}_1, \textit{frame}_2, ..., \textit{frame}_n \,\rangle \\ \text{RELATED\_LIST} & \left\langle \left[\begin{array}{ll} \text{1ST} & \left[\begin{array}{l} \text{FRAME\_ID } \textit{integer} \\ \text{SLOT\_ID } \textit{integer} \\ \text{REALISATION\_ID } \textit{integer} \end{array}\right] \\ \text{2ND} & \left[\begin{array}{l} \text{FRAME\_ID } \textit{integer} \\ \text{SLOT\_ID } \textit{integer} \\ \text{REALISATION\_ID } \textit{integer} \end{array}\right] \end{array}\right]^{*} \right\rangle \end{array}\right]$$

A list of expansions for values other than *integer* is provided below.

$optionality$	$opt \mid no\_opt$
in_order	$prep \mid post \mid irrelevant$
cat_label	$n \mid aj \mid pr \mid v \mid av \mid cj \mid ad \mid dt \mid ar \mid in \mid s \mid vp \mid np \mid ap \mid advp \mid detp$
$cat\_features$: VERB	$fin \mid nfin$
	$ind \mid sub \mid impr \mid cond \mid inf \mid part \mid ger \mid sup \mid ing \mid bas$
	$pres \mid impf \mid fut \mid past$
	$pfve \mid ifve$
	$hv \mid be$
$cat\_features$: (PRO)NOUN	$nom \mid gen \mid dat \mid acc$
	$dem \mid indf \mid poss \mid int \mid rel \mid pers \mid refl \mid recp \mid excl$
	$1 \mid 2 \mid 3$
	$passivisable \mid no\_passivisable$
$cat\_features$: ADJ	$qual \mid poss \mid indf \mid card \mid ord$
$cat\_features$: LEX	$string$
$cat\_features$: INTROD	$string$
$control$	$control \mid subj\_raising \mid obj\_raising$
$func\_label$	$subj \mid comp \mid dcomp \mid icomp$
$pred$	$pred \mid npred$
$\Theta\_features$	$cause \mid change \mid be \mid source \mid path \mid goal$
sem_class	(to be developed)

A comparison of these descriptions with the SGML encoding given in section 5.2 will reveal a small degree of deviation. Application of a classifying scheme always requires some adjustments, and we would indeed welcome the possibility of examining future uses of the EAGLES subcategorisation standards in order to update the scheme periodically. The addition and changes introduced in this chapter will eventually be integrated with the formal description given in section 5. Also, a version of the EAGLES Subcategorisation Scheme will soon be implemented in ALE (Carpenter, 1992), as a part of the lexical specification work in the SPARKLE project (LE1–2111).
For ease of presentation, examples are given using macros which abbreviate the FS representations above. A frame macros consists of five primary parts:

- a frame id
- the orthography of the predicate under consideration,
- a category label with a list of morphosyntactic features
- a sequence of slots
- a list of precedence relations between integer indexes indicating the relative positioning of slots or slot realisations.

$$\left(\begin{array}{l}\textbf{frame}:1\\ \text{like,}\\ \text{v[bs,...],}\\ slot_1\\ \vdots\\ slot_n\\ [N_{ii} > N_{jj}, ..., N_{in} > N_{jn}]\end{array}\right)$$

Slots are represented as a disjunctions of slot realisations associated with a slot id:

$$\left\{\begin{array}{l}\textbf{slot}:1\\ reals_1\\ \vdots\\ reals_n\end{array}\right\}$$

Each slot realisation consists of

- a slot realisation id, and
- a list of values for the following attributes:
  - category and morphosyntactic features
  - grammatical function and predicative value
  - obligatoriness
  - control
  - obviation
  - order with respect to the head (*in_order*)
  - thematic role index and features
  - semantic class

For example:

realz:1
np[nom]
subj[npred]
no_opt
control(1-1-1)
obv(1-1-2)
post
Θ1[cause,change]
[sem_class]

Values are omitted when not relevant or unspecified. Here is a frame example with reference to the English verb ‘like’ (some extra semantic values are introduced for expository purposes) :

frame:1
like,
v[bas],

slot:1
realz:1
np[nom]
subj[npred]
no_opt
Θ1[emotive,be]
[sentient]

slot:2
realz:1
np[nom]
comp[npred]
no_opt
Θ21[emotive,source]
[sem_class]
realz:2
vp[ger|inf]
comp[pred]
no_opt
control(1-1-1)
Θ22[emotive,source]
[event]

A frame list is represented as a structure consisting of a list of frames and a list of relations between frame-slot(-realisation) index couples (triples), as shown in the example below where the inchoative and causative versions of the Italian verb 'affondare' are related:

frame:1
affondare,
v[avere],

slot:1
realz:1
np[nom]
subj[npred]
no_opt
Θ1[move,cause]
[sem_class]

slot:2
realz:1
np[nom]
comp[npred]
no_opt
Θ21[move,change]
[sem_class]

,

frame:2
affondare,
v[essere],

slot:1
realz:1
np[nom]
subj[npred]
no_opt
Θ1[move,change]
[sem_class]

[rel(1-2-1,2-1-1)]

A.2 Spanish examples

Basar (*base*)

Transitive verb with bound prepositional complement. It may be pronominalised reducing the second argument (basarse). However there is not a direct relation between the arguments of one realisation and the other — contrary to decausativisation of verbs like *cerrar*, — see below.

(157) a. El presidente basó su discurso en la productividad
The president based his speech on productivity

b. No sé en qué se basa para afirmar esto
I don't know on what he bases himself to say that

c. La productividad se basa en la buena gestión
Productivity is based on good management

```
[ ( frame:1                              ( frame:2
    basar,                                 basar,
    v[inf],                                v[inf],
    { slot:1                               { slot:1
      realz:1                                realz:1
        np[nom]                                np[nom]
        subj[ ]                                subj[ ]
        no_opt                                 no_opt }
        [anim] }                           { slot:2
    { slot:2                                 realz:1
      realz:1                                  np[LEX:"se"]
        np[acc,3]                              comp[ ]
        dcomp[ ]                               no_opt }
        no_opt                        ,    { slot:3
        [no-anim] }                          realz:1
    { slot:3                                   pp[INTROD:"en"]
      realz:1                                  icomp[ ]
        pp[INTROD:"en"]                        no_opt } )
        icomp[ ]
        no_opt } )
  [rel(1-1-1,2-1-1),rel(1-2-1,2-2-1),rel(1-3-1,2-3-1)] ]
```

Caducar (*expire*)

Intransitive verb

(158) a. Su carnet de conducir ha caducado
His driving license has expired

```
( frame:1
  caducar,
  v[inf],
  { slot:1
    realz:1
      np[nom]
      subj[ ]
      no_opt
      [no-anim] } )
```

Cerrar (*close*)

Transitive verb that allows decausativisation by means of the reflexive pronoun ‘se’.

(159) a. Juan cerró la puerta
John closed the door

b. La puerta se cerró
The door closed

```
[ ( frame:1                    ) , ( frame:2                  ) ]
[ ( cerrar,                    )   ( cerrar,                  ) ]
[ ( v[inf],                    )   ( v[inf],                  ) ]
[ ( { slot:1                 } )   ( { slot:1               } ) ]
[ ( { realz:1                } )   ( { realz:1              } ) ]
[ ( {    np[nom]             } )   ( {    np[nom]           } ) ]
[ ( {    subj[ ]             } )   ( {    subj[ ]           } ) ]
[ ( {    no_opt              } )   ( {    no_opt            } ) ]
[ ( {    [anim]              } )   ( {    [no-anim]         } ) ]
[ ( { slot:2                 } )   ( { slot:2               } ) ]
[ ( { realz:1                } )   ( { realz:1              } ) ]
[ ( {    np[acc]             } )   ( {    np[LEX:"se"]      } ) ]
[ ( {    dcomp[ ]            } )   ( {    comp[ ]           } ) ]
[ ( {    no_opt              } )   ( {    no_opt            } ) ]
[ ( {    [no-anim]           } )   (                          ) ]
[ [rel(1-2-1,2-1-1)]                                            ]
```

Cocinar (*cook*)

Transitive passivisable verb with object deletion. In this example we will represent passivisation as alternating frames with related slots. In other examples, the possibility to passivise of the transitive frame is dealt with by means of the morphosyntactic feature *passivisable* encoded in the direct complement.

(160) a. Hoy cocina mi marido
Today my husband does the cooking

b. Cocino el arroz a fuego lento
I cook the rice on a low flame

c. Este plato ha sido cocinado sin sal
This dish has been cooked without any salt

frame:1
cocinar,
v[inf],
slot:1
realz:1
np[nom]
subj[ ]
no_opt
[anim]
slot:2
realz:1
np[acc]
dcomp[ ]
opt
[no-anim]

,

frame:2
cocinado,
v[part],
slot:1
realz:1
np[nom]
subj[ ]
no_opt
[no-anim]
slot:2
realz:1
np[INTROD:"por"]
by-obj[ ]
opt
[anim]

[rel(1-1-1,2-2-1),rel(1-2-1,2-1-1)]

Coincidir (*coincide*)

Prepositional verb with bound pcomp introduced by 'con' (*with*) which may be omitted provided that the subject is plural (coordinated or not).

(161) a. Tu opinión no coincide con la mía
Your opinion doesn't coincide with mine

b. Tu opinión y la mía no coinciden
Your opinion and mine don't coincide

c. Nuestras opiniones no coinciden
Our opinions don't coincide

frame:1
coincidir,
v[inf],
slot:1
realz:1
np[nom]
subj[ ]
no_opt
slot:2
realz:1
np[INTROD:"con"]
icomp[ ]
no_opt

,

frame:2
coincidir,
v[inf],
slot:1
realz:1
np[nom,pl]
subj[ ]
no_opt

[rel(1-1-1,2-1-1),rel(1-2-1,2-1-1)]

Dar (*give*)

Ditransitive non-passivisable verb with optional indirect object.

(162) a. Juan dió un libro a María
John gave a book to Mary

b. El profesor dió los resultados de los exámenes
The teacher gave the results of the exams

frame:1
dar,
v[inf],
{ **slot**:1
realz:1
np[nom]
subj[ ]
no_opt
[anim] }
{ **slot**:2
realz:1
np[acc]
dcomp[ ]
no_opt
[no-anim] }
{ **slot**:3
realz:1
np[dat,INTROD:“a”]
icomp[ ]
opt
[anim] }

Gustar (*like*)

Indirect object control verb.

(163) a. A Juan le gusta viajar en avión
John likes travelling by plane

b. Me gusta que seas responsable
I like that you are responsible

c. Me gusta el vino de La Rioja
I like the wine from La Rioja

frame:1
gustar,
v[inf],

slot:1
realz:1
np[nom]
subj[ ]
no_opt
post
realz:2
s[fin,sub]
subj[ ]
no_opt
post
realz:3
s[inf]
subj[ ]
no_opt
post
control(1-2-1)

slot:2
realz:1
np[dat,INTROD:"a"]
icomp[ ]
no_opt
pre
[anim]

Ir (*go*)

Directional verb with optional weakly bound pcomps. Optionality follows this restriction: whenever the third argument (goal) is not present the second (origin) cannot be there either.

(164) a. Hoy iré andando.
Today I'll walk

b. Juan va hacia su casa.
John is going towards his house

c. María va de casa a la escuela a pie.
Mary goes from home to school by foot

$$\left[\begin{array}{l} \left(\begin{array}{l} \textbf{frame}{:}1 \\ \text{ir}, \\ \text{v[inf]}, \\ \left\{\begin{array}{l} \textbf{slot}{:}1 \\ \textbf{realz}{:}1 \\ \quad \text{np[nom]} \\ \quad \text{subj[ ]} \\ \quad \text{no\_opt} \end{array}\right\} \\ \left\{\begin{array}{l} \textbf{slot}{:}2 \\ \textbf{realz}{:}1 \\ \quad \text{pp[}\textsc{introd}\text{:``de''|desde]} \\ \quad \text{icomp[ ]} \\ \quad \text{opt} \end{array}\right\} \\ \left\{\begin{array}{l} \textbf{slot}{:}3 \\ \textbf{realz}{:}1 \\ \quad \text{pp[}\textsc{introd}\text{:``a''|``hacia''|``hasta'']} \\ \quad \text{icomp[ ]} \\ \quad \text{no\_opt} \end{array}\right\} \end{array}\right) , \left(\begin{array}{l} \textbf{frame}{:}2 \\ \text{ir}, \\ \text{v[inf]}, \\ \left\{\begin{array}{l} \textbf{slot}{:}1 \\ \textbf{realz}{:}1 \\ \quad \text{np[nom]} \\ \quad \text{subj[ ]} \\ \quad \text{no\_opt} \end{array}\right\} \end{array}\right) \\ \text{[rel(1-1-1,2-1-1)]} \end{array}\right]$$

Llevar (*carry*)

Movement transitive verb with passivisable direct complement. May have either two directional complements (origin, goal), with the first being optional, or an animate indirect object. Since one excludes the others, we have chosen to have two different frames, related by a common frame set.

(165) a. El tren llevaba carbón de Manchester a Londres.
The train carried charcoal from Manchester to London

b. Juan llevó a su hermana al colegio.
John brought his sister to school

c. Juan llevó un regalo a su hermana
John brought a present to his sister

(**frame**:1
llevar,
v[inf],
{**slot**:1
realz:1
np[nom]
subj[ ]
no_opt}
{**slot**:2
realz:1
np[acc,passivisable]
dcomp[ ]
no_opt}
{**slot**:3
realz:1
np[dat,INTROD:“a”]
icomp[ ]
opt}),
(**frame**:2
llevar,
v[inf],
{**slot**:1
realz:1
np[nom]
subj[ ]
no_opt}
{**slot**:2
realz:1
np[acc,passivisable]
dcomp[ ]
no_opt}
{**slot**:3
realz:1
pp[INTROD:“de”|“desde”]
icomp[ ]
opt}
{**slot**:4
realz:1
pp[INTROD:“a”|“hacia”|“hasta”]
icomp[ ]
no_opt})
[rel(1-1-1,2-1-1),rel(1-2-1,2-2-1),rel(1-3-1,2-4-1)]

Mejorar (*improve*)

Ergative verb.

(166) a. El nuevo gobierno ha mejorado la situación económica
The new Government has improved the economical situation

b. La situación económica ha mejorado
The economical situation has improved

(**frame**:1
mejorar,
v[inf],
{**slot**:1
realz:1
np[nom]
subj[ ]
no_opt}
{**slot**:2
realz:1
np[acc,passivisable]
dcomp[ ]
no_opt
[no-anim]}),
(**frame**:2
mejorar,
v[inf],
{**slot**:1
realz:1
np[nom]
subj[ ]
no_opt
[no-anim]})
[rel(1-2-1,2-1-1)]

Ocurrir (*happen*)

Intransitive verb with optional indirect object and possibly sentential subject.

(167) a. Me ocurrio un percance el otro dia
A misfortune happened to me the other day

b. Ocurre a menudo que nos vemos al salir de clase
It happens often that we meet after the courses

```
( frame:1
  ocurrir,
  v[inf],
  { slot:1
    realz:1
      np[nom,3]
      subj[ ]
      no_opt
      post
      [no-anim]
    realz:2
      s[fin,ind]
      subj[ ]
      no_opt
      post }
  { slot:2
    realz:1
      np[dat,INTROD:"a"]
      icomp[ ]
      opt
      [anim] } )
```

Oir (*hear*)

Perception verb. Bears an optional direct complement NP which may be passivised. It may also bear an infinitival clause controlled by the NP object, if it is present. The functional status of this sentential argument is not clear. Following LFG, we call it a predicative complement subject to control (XCOMP). This complement may also appear without the direct object when the verb is taken as an impersonal.

(168) a. Oigo a mis sobrinos.
I hear my nephews

b. Oigo a mis sobrinos jugar.
I hear my nephews playing

c. Oigo llover
I hear the rain

d. Oigo cantar
I hear singing (I hear someone singing)

```
( frame:1
  oir,
  v[inf],
  { slot:1
    realz:1
      np[nom]
      subj[ ]
      no_opt
      [anim] }
  { slot:2
    realz:1
      np[acc,passivisable]
      dcomp[ ]
      opt }
  { slot:3
    realz:1
      s[inf]
      comp[pred]
      opt
      control(1-2-1) } )
```

Parecer (*seem*)

Subject raising verb.

(169) a. Este libro parece interesante.
This book seems interesting

b. Juan parece estar en buena forma.
John seems to be in good shape

c. Parece que Juan está en buena forma.
It seems that John is in a good shape

```
[ ( frame:1                                              ]
  (  parecer,
  (  v[inf],
  (  { slot:1
  (    realz:1
  (      np[nom]
  (      subj[ ]
  (      no_opt }
  (  { slot:2                          ( frame:2
  (    realz:1                           parecer,
  (      np[nom]                         v[inf],
  (      comp[pred]                      { slot:1
  (      no_opt                     ,      realz:1
  (    realz:2                               s[fin,sub]
  (      ap[ ]                               subj[ ]
  (      comp[pred]                          no_opt
  (      no_opt                              post }   )
  (    realz:3
  (      pp[ ]
  (      comp[pred]
  (      no_opt
  (    realz:4
  (      vp[inf]
  (      comp[pred]
  (      no_opt
  (      subj_raising(1-1-1) } )
  [rel(1-2,2-1)]                                         ]
```

Pensar (*think*)

Subject control verb. The second argument is optional and may have several realisations, with slight differences in meaning.

(170) a. Pienso luego existo
I think, therefore I am

b. He pensado un plan para solucionar el problema
I've come up with a plan to solve our problem

c. Pienso que será bastante fácil
I think that it will be quite easy

d. Juan piensa comprarse un coche
John is thinking in buying a new car)

e. Pienso a menudo en mis padres
I think often of my fathers

f. No pensé en decirte que apagaras la luz
I didn't remember to tell you to turn the lights off

frame:1
pensar,
v[inf],
{ **slot**:1
realz:1
np[nom]
subj[ ]
no_opt
[anim] }
{ **slot**:2
realz:1
np[acc]
dcomp[ ]
opt
[no-anim]
realz:2
s[fin,ind]
dcomp[ ]
opt
realz:3
s[inf]
dcomp[ ]
opt
control(1-1-1)
realz:4
pp[INTROD:"en"]
icomp[ ]
opt }

Permitir (*permit*)

Ditransitive control verb, with the indirect object controlling the infinitive clause, if present.

(171) a. El profesor no permitió a María abandonar el aula.
The teacher didn't permit Mary to leave the room

b. El profesor permitió a María que abandonara el aula.
The teacher permited Mary to leave the room (that she left the room)

c. El gobierno no permite la importación de coches.
The Govern doesn't allow the importation of foreign cars

frame:1
permitir,
v[inf],

slot:1
realz:1
np[nom]
subj[ ]
no_opt
realz:2
s[inf]
subj[ ]
no_opt

slot:2
realz:1
np[acc,3,passivisable]
dcomp[ ]
no_opt
[no-anim]
realz:2
s[inf,passivisable]
dcomp[ ]
no_opt
control(1-3-1)
realz:3
s[fin,sub]
dcomp[ ]
no_opt

slot:3
realz:1
np[dat,INTROD:"a"]
icomp[ ]
opt
[anim]

Poder (*can, may*)

Modal subject raising verb.

(172) a. La situación puede cambiar.
The situation may change

b. Puede que la situación cambie.
It may be that the situation changes

$$
\left[
\begin{array}{l}
\left(
\begin{array}{l}
\textbf{frame}{:}1\\
\text{poder,}\\
\text{v[inf],}\\
\left\{
\begin{array}{l}
\textbf{slot}{:}1\\
\textbf{realz}{:}1\\
\quad\text{np[nom]}\\
\quad\text{subj[ ]}\\
\quad\text{no\_opt}
\end{array}
\right\}\\
\left\{
\begin{array}{l}
\textbf{slot}{:}2\\
\textbf{realz}{:}1\\
\quad\text{vp[inf]}\\
\quad\text{dcomp[ ]}\\
\quad\text{no\_opt}\\
\quad\text{subj\_raising(1-1-1)}
\end{array}
\right\}
\end{array}
\right),
\left(
\begin{array}{l}
\textbf{frame}{:}2\\
\text{poder,}\\
\text{v[inf],}\\
\left\{
\begin{array}{l}
\textbf{slot}{:}1\\
\textbf{realz}{:}1\\
\quad\text{s[fin,sub]}\\
\quad\text{subj[ ]}\\
\quad\text{no\_opt}\\
\quad\text{post}
\end{array}
\right\}
\end{array}
\right)\\
\text{[rel(1-2-1,2-1-1)]}
\end{array}
\right]
$$

Ser (*be*)

Copular verb.

(173) a. Juan es mi profesor.
John is my teacher

b. La comida fue excelente.
The meal was excellent

c. La fiesta será en mi casa.
The party will be in my home

d. Es una lástima que no vengas.
It is a pity that you don't come

frame:1
ser,
v[inf],

slot:1
realz:1
np[nom]
subj[ ]
no_opt
realz:2
s[inf]
subj[ ]
no_opt
realz:3
s[fin,sub]
subj[ ]
no_opt

slot:2
realz:1
np[nom]
comp[pred]
no_opt
realz:2
ap[ ]
comp[pred]
no_opt
realz:3
pp[ ]
comp[pred]
no_opt
realz:4
advp[ ]
comp[pred]
no_opt

A.3 German examples

vergehen (*pass*)

Intransitive verb

(174) a. Der Abend verging.
The evening went by.

$$\left(\begin{array}{l}\textbf{frame}{:}1\\ \text{vergehen,}\\ \text{v[inf],}\\ \left\{\begin{array}{l}\textbf{slot}{:}1\\ \textbf{realz}{:}1\\ \quad\text{np[nom]}\\ \quad\text{subj[ ]}\\ \quad\text{no\_opt}\\ \quad\text{[time]}\end{array}\right\}\end{array}\right)$$

oeffnen (*open*)

Transitive verb that allows decausativisation by means of the reflexive pronoun ‘sich’.

(175) a. Hans oeffnete die Tuer
John opened the door

b. Die Tuer oeffnete sich
The door opened

$$\left[\begin{array}{l}\left(\begin{array}{l}\textbf{frame}{:}1\\ \text{oeffnen,}\\ \text{v[inf],}\\ \left\{\begin{array}{l}\textbf{slot}{:}1\\ \textbf{realz}{:}1\\ \quad\text{np[nom]}\\ \quad\text{subj[ ]}\\ \quad\text{no\_opt}\\ \quad\text{[anim]}\end{array}\right\}\\ \left\{\begin{array}{l}\textbf{slot}{:}2\\ \textbf{realz}{:}1\\ \quad\text{np[acc,3,passivisable]}\\ \quad\text{dcomp[ ]}\\ \quad\text{no\_opt}\\ \quad\text{[no-anim]}\end{array}\right\}\end{array}\right), \left(\begin{array}{l}\textbf{frame}{:}2\\ \text{oeffnen,}\\ \text{v[inf],}\\ \left\{\begin{array}{l}\textbf{slot}{:}1\\ \textbf{realz}{:}1\\ \quad\text{np[nom]}\\ \quad\text{subj[ ]}\\ \quad\text{no\_opt}\\ \quad\text{[no-anim]}\end{array}\right\}\\ \left\{\begin{array}{l}\textbf{slot}{:}2\\ \textbf{realz}{:}1\\ \quad\text{np[}\textsc{lex}\text{:“sich”]}\\ \quad\text{comp[ ]}\\ \quad\text{no\_opt}\end{array}\right\}\end{array}\right)\\ \text{[rel(1-2,2-1)]}\end{array}\right]$$

sich treffen (*meet*)

Prepositional verb with bound pcomp introduced by ‘mit’ (*with*) which may be omitted provided that the subject is plural (coordinated or not).

(176) a. Ich treffe mich mit meinen Freunden
I meet my friends

b. Meine Freunde und ich treffen sich
My friends and I come together

c. Meine Freunde treffen sich
My friends come together

```
[ ( frame:1                        ) , ( frame:2                                              ) ]
[ ( treffen,                       )   ( treffen,                                             ) ]
[ ( v[inf],                        )   ( v[inf],                                              ) ]
[ ( { slot:1                 }     )   ( { slot:1       } { slot:2                  }         ) ]
[ ( { realz:1                }     )   ( { realz:1      } { realz:1                 }         ) ]
[ ( {   np[nom]              }     )   ( {   np[nom,pl] } {   np[LEX:"sich"]        }         ) ]
[ ( {   subj[ ]              }     )   ( {   subj[ ]    } {   comp[ ]               }         ) ]
[ ( {   no_opt               }     )   ( {   no_opt     } {   no_opt                }         ) ]
[ ( { slot:2                 }     )                                                          ]
[ ( { realz:1                }     )                                                          ]
[ ( {   np[LEX:"sich"]       }     )                                                          ]
[ ( {   comp[ ]              }     )                                                          ]
[ ( {   no_opt               }     )                                                          ]
[ ( { slot:3                 }     )                                                          ]
[ ( { realz:1                }     )                                                          ]
[ ( {   np[INTROD:"mit"]     }     )                                                          ]
[ ( {   pcomp[ ]             }     )                                                          ]
[ ( {   no_opt               }     )                                                          ]
[ [rel(1-1,2-1),rel(1-3,2-1)]                                                                 ]
```

geben (*give*)

Verb with dative and accusative objects.

(177) a. John gab seiner Freundin das Buch
John gave the book to his girl friend

```
( frame:1              )
( geben,               )
( v[inf],              )
( { slot:1        }    )
( { realz:1       }    )
( {   np[nom]     }    )
( {   subj[ ]     }    )
( {   no_opt      }    )
( {   [anim]      }    )
( { slot:2        }    )
( { realz:1       }    )
( {   np[acc]     }    )
( {   dcomp[ ]    }    )
( {   no_opt      }    )
( {   [no-anim]   }    )
( { slot:3        }    )
( { realz:1       }    )
( {   np[dat]     }    )
( {   icomp[ ]    }    )
( {   opt         }    )
( {   [anim]      }    )
```

aergern (*irritate*)

Indirect object control verb.

(178) a. Der letzte zu sein, aergert mich
Being the last one irritates me

b. Dass es regnet, aergert ihn
That it rains annoys him

c. Das schlechte Wetter aergert ihn
The bad weather annoys him

frame:1
aergern,
v[inf],
- **slot**:1
  - **realz**:1
    - np[nom]
    - subj[ ]
    - no_opt
  - **realz**:2
    - s[fin,sub]
    - subj[ ]
    - no_opt
  - **realz**:3
    - s[inf]
    - subj[ ]
    - no_opt
    - control(1-2-1)
- **slot**:2
  - **realz**:1
    - np[acc]
    - icomp[ ]
    - no_opt
    - [anim]

kochen (*cook*)

Transitive verb with optional object amenable to passivasation.

(179) a. Heute kocht mein Mann
Today my husband does the cooking

b. Ich koche den Reis auf niedriger Flamme
I cook the rice on a low flame

c. Die Kartoffeln haben zu lange gekocht
The potatoes have been cooked too long

```
[ ( frame:1                  )   ( frame:2                       ) ]
[ ( kochen,                  )   ( kochen,                       ) ]
[ ( v[inf],                  )   ( v[part],                      ) ]
[ (  { slot:1       }        )   (  { slot:1       }             ) ]
[ (  { realz:1      }        )   (  { realz:1      }             ) ]
[ (  {   np[nom]    }        )   (  {   np[nom]    }             ) ]
[ (  {   subj[ ]    }        ) , (  {   subj[ ]    }             ) ]
[ (  {   no_opt     }        )   (  {   no_opt     }             ) ]
[ (  {   [anim]     }        )   (  {   [no-anim]  }             ) ]
[ (  { slot:2        }       )   (  { slot:2                  }  ) ]
[ (  { realz:1       }       )   (  { realz:1                 }  ) ]
[ (  {   np[acc]     }       )   (  {   np[INTROD:"bei"]      }  ) ]
[ (  {   dcomp[ ]    }       )   (  {   comp[ ]               }  ) ]
[ (  {   opt         }       )   (  {   opt                   }  ) ]
[ (  {   [no-anim]   }       )   (  {   [anim]                }  ) ]
[ [rel(1-1,2-2),rel(1-2,2-1)]                                      ]
```

hoeren (*hear*)

Perception verb. Bears an optional direct complement NP which may be passivised. It may also bear an infinitival clause controlled by the NP object, if it is present.

(180) a. Ich hoere die Glocke.
I hear the bell

b. Ich hoere die Engel singen.
I hear the angels singing

```
( frame:1                              )
( hoeren,                              )
( v[inf],                              )
(  { slot:1      }                     )
(  { realz:1     }                     )
(  {   np[nom]   }                     )
(  {   subj[ ]   }                     )
(  {   no_opt    }                     )
(  {   [anim]    }                     )
(  { slot:2                   }        )
(  { realz:1                  }        )
(  {   np[acc,passivisable]   }        )
(  {   dcomp[ ]               }        )
(  {   opt                    }        )
(  { slot:3            }               )
(  { realz:1           }               )
(  {   s[inf]          }               )
(  {   comp[pred]      }               )
(  {   opt             }               )
(  {   control(1-2-1)  }               )
```

A.4 Italian examples

Piovere (*rain*)

Weather verbs obligatorily require no complements; i.e. their slot list is empty.

(181) a. Oggi piove
Today it rains

$$\left(\begin{array}{l}\textbf{frame}{:}1\\ \text{piovere,}\\ \text{v[inf, avere|essere],}\\ \left\{\begin{array}{l}\textbf{slot}{:}0\\ nil\end{array}\right\}\end{array}\right)$$

Ridere (*laugh*)

Intransitive verb.

(182) a. Ha riso nervosamente
(S)he laughed nervously

$$\left(\begin{array}{l}\textbf{frame}{:}1\\ \text{ridere,}\\ \text{v[inf, avere],}\\ \left\{\begin{array}{l}\textbf{slot}{:}1\\ \textbf{realz}{:}1\\ \quad\text{np[nom]}\\ \quad\text{subj[ ]}\\ \quad\text{[human]}\end{array}\right\}\end{array}\right)$$

Parlare (*talk*)

Verb with two prepositional complements introduced respectively by “di” (*about*) and “con” (*with*) which may both be omitted.

(183) a. Giovanni ha parlato di letteratura con Maria
John talked about literature with Mary

b. Giovanni ha parlato di letteratura
John talked about literature

c. Giovanni ha parlato con Maria
John talked with Mary

d. Giovanni ha parlato
John talked

frame:1
parlare,
v[inf, avere],

slot:1
realz:1
np[nom]
subj[ ]
[human]

slot:2
realz:1
np[INTROD:“di”]
icomp[ ]
opt

slot:3
realz:1
np[INTROD:“con”]
icomp[ ]
opt
[human]

Avvalersi (*avail oneself of*)

Intransitive verb in pronominal form with prepositional complement introduced by “di”.

(184) a. Giovanni si avvalse del mio aiuto
John availed himself of my help

frame:1
avvalersi,
v[inf, essere, pronominal],

slot:1
realz:1
np[nom]
subj[ ]
[human]

slot:2
realz:1
np[INTROD:“di”]
icomp[ ]

Mangiare (*eat*)

Transitive verb with optional object.

(185) a. Giovanni ha mangiato pasta
John ate pasta

b. Giovanni ha mangiato
John ate

frame:1
mangiare,
v[inf, avere],
slot:1
realz:1
np[nom]
subj[ ]
[anim]
slot:2
realz:1
np[acc]
dcomp[ ]
opt
[edible]

Pagare (*pay*)

Verb with two complements (a direct object and a prepositional complement introduced by “a” *to*) whose optionality is constrained by logical conditions, i.e. omission of the direct object requires omission of the indirect object too (note, incidentally, that the two objects can be omitted simultaneously).

(186) a. Giovanni ha pagato
John paid

b. Giovanni ha pagato il conto
John paid the bill

c. Giovanni ha pagato il conto a Maria
John paid the bill to Mary

d. *Giovanni ha pagato a Maria
John paid to Mary

frame:1
pagare,
v[inf, avere],
slot:1
realz:1
np[nom]
subj[ ]
[human]
slot:2
realz:1
np[ ]
dcomp[ ]
opt
,
frame:2
pagare,
v[inf, avere],
slot:1
realz:1
np[nom]
subj[ ]
[human]
slot:2
realz:1
np[acc]
dcomp[ ]
no_opt
slot:3
realz:1
np[dat, INTROD:“a”]
icomp[ ]
no_opt

[rel(1-1-1,2-1-1),rel(1-2-1,2-2-1)]

Friggere (*fry*)

Transitive verb undergoing the causative-inchoative alternation with no morphosyntactic marking in the inchoative reading.

(187) a. Giovanni ha fritto le patate
John fried potatoes

b. Le patate friggono
The potatoes fry

frame:1
friggere,
v[inf, avere],
{ **slot**:1
realz:1
np[nom]
subj[ ]
[human] }
{ **slot**:2
realz:1
np[acc]
dcomp[ ]
[food] }
,
frame:2
friggere,
v[inf, avere],
{ **slot**:1
realz:1
np[nom]
subj[ ]
[food] }
[rel(1-2-1,2-1-1)]

Rompere (*break*)

Transitive verb undergoing the causative-inchoative alternation with morphosyntactic marking in the inchoative reading.

(188) a. Giovanni ha rotto il vetro
John broke the window-pane

b. Il vetro si ruppe
The window-pane broke

frame:1
rompere,
v[inf, avere],
{ **slot**:1
realz:1
np[nom]
subj[ ] }
{ **slot**:2
realz:1
np[acc]
dcomp[ ]
no_opt }
,
frame:2
rompere,
v[inf, essere, pronominal],
{ **slot**:1
realz:1
np[nom]
subj[ ] }
[rel(1-2-1,2-1-1)]

Promettere (*promise*)

Subject control verb.

(189) a. Giovanni ha promesso a Maria di andare
John promised Mary to go

b. Giovanni ha promesso di andare
John promised to go

$$
\left(\begin{array}{l}
\textbf{frame}{:}1\\
\text{promettere,}\\
\text{v[inf, avere],}\\
\left\{\begin{array}{l}
\textbf{slot}{:}1\\
\textbf{realz}{:}1\\
\quad\text{np[nom]}\\
\quad\text{subj[ ]}\\
\quad\text{[human]}
\end{array}\right\}\\
\left\{\begin{array}{l}
\textbf{slot}{:}2\\
\textbf{realz}{:}1\\
\quad\text{np[dat,}\textsc{introd}\text{:“a”]}\\
\quad\text{icomp[ ]}\\
\quad\text{opt}\\
\quad\text{[human]}
\end{array}\right\}\\
\left\{\begin{array}{l}
\textbf{slot}{:}3\\
\textbf{realz}{:}1\\
\quad\text{s[nfin, inf, }\textsc{introd}\text{:“di”]}\\
\quad\text{dcomp[ ]}\\
\quad\text{no\_opt}\\
\quad\text{control(1-1-1)}
\end{array}\right\}
\end{array}\right)
$$

Informare (*inform*)

Subject control verb with two complements, a direct object and a prepositional or clausal complement.

(190) a. Giovanni ha informato Maria dello sciopero
John informed Mary about the strike

b. Giovanni ha informato Maria che lo sciopero era finito
John informed Mary that the strike was over

c. Giovanni ha informato Maria di aver vinto la gara
John informed Mary that he won the competition

frame:1
informare,
v[inf, avere],
slot:1
realz:1
np[nom]
subj[ ]
[human]
slot:2
realz:1
np[acc]
dcomp[ ]
no_opt
[human]
slot:3
realz:1
np[INTROD:“di”]
icomp[ ]
opt
realz:2
s[fin, INTROD:“che”]
icomp[ ]
opt
realz:3
s[nfin, inf, INTROD:“di”]
icomp[ ]
opt
control(1-1-1)

Persuadere (*persuade*)

Object control verb.

(191) a. Giovanni ha persuaso Maria ad andare
John persuaded Mary to go

b. Giovanni ha persuaso Maria
John persuaded Mary

frame:1
persuadere,
v[inf, avere],
{ **slot**:1
realz:1
np[nom]
subj[ ]
[human] }
{ **slot**:2
realz:1
np[acc]
dcomp[ ]
no_opt
[human] }
{ **slot**:3
realz:1
s[nfin, inf, INTROD:"a"]
icomp[ ]
opt
control(1-2-1) }

Ordinare (*order*)

Oblique control verb.

(192) a. Giovanni ha ordinato a Maria di andare
John ordered Mary to go

frame:1
ordinare,
v[inf, avere],
{ **slot**:1
realz:1
np[nom]
subj[ ]
[human] }
{ **slot**:2
realz:1
np[dat, INTROD:"a"]
icomp[ ]
no_opt
[human] }
{ **slot**:3
realz:1
s[nfin, inf, INTROD:"di"]
dcomp[ ]
no_opt
control(1-2-1) }

Sembrare (*seem*)

Subject raising verb.

(193) a. Questo libro sembra interessante
This book looks interesting

b. Questo libro sembra un capolavoro
This book looks like a masterpiece

c. Questo libro sembra fuori commercio
This book seems to be out of print

d. Questo libro sembra essere interessante
This book seems to be interesting

e. Sembra che questo libro sia interessante
(It) seems that this book is interesting

```
[ ( frame:1
    sembrare,
    v[inf, essere],
    { slot:1
      realz:1
        np[nom]
        subj[ ] }
    { slot:2
      realz:1
        np[acc]
        comp[pred]
        no_opt
      realz:2
        ap[ ]
        comp[pred]
        no_opt
      realz:3
        np[INTROD:prep]
        comp[pred]
        no_opt
      realz:4
        vp[inf]
        comp[pred]
        no_opt
        subj_raising(1-1-1) } ) ,
  ( frame:2
    sembrare,
    v[inf, essere],
    { slot:1
      realz:1
        s[fin,sub]
        subj[ ]
        no_opt
        post } )
  [] ]
```

Considerare (*consider*)

Object raising verb.

(194) a. Considero la tua proposta una bella idea
I consider your proposal a good idea

b. Considero la tua proposta molto interessante
I consider your proposal very interesting

frame:1
considerare,
v[inf, avere],

slot:1
realz:1
  np[nom]
  subj[ ]
  [human]

slot:2
realz:1
  np[acc]
  dcomp[ ]
  no_opt

slot:3
realz:1
  np[ ]
  dcomp[pred]
  no_opt
realz:2
  ap[ ]
  dcomp[pred]
  no_opt $(obj\_raising(2-1-1))$