Non-Canonical Arguments and Positions

- Ling 226: Construction Grammar
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- URL: http://lingo.stanford.edu/sag/L226
Goldberg’s (1995) Argument Structure Constructions

- **Ditransitives**: We gave her a book.
- **Caused Motion**: Pat threw a bone to Fido.
- **Resultative**: The clothes steamed dry in ten minutes. They drank the pub dry.
- ‘**Fake’ Reflexive**: They drank themselves silly.
- **X’s Way**: Chris lied his way into the meeting.
More X’s Way Examples

- The hunters made their way into the forest.
- Bo ate his way across Europe.
- But he consummately ad-libbed his way through a largely secret press meeting. (OUP; cited by Goldberg (1995))
- The players will maul their way up the middle of the field. (OUP; cited by Goldberg (1995))
Other Argument Structure Issues

- Locative \((spray/load)\) alternations
- Passive
- Constructional interaction
Non-Canonical Positions

- Discontionuous dependencies.
- Extraposition dependencies.
- \[
  \text{[[so big a mess] resulted from the meeting of the committee on the seventeenth of August] that it took hours to clean it up].}
\]
Passivization and Ditransitives

- The catcher threw the bean bag.
- A famous sculptor carved a soap statue of Bugs Bunny.
- Pat was thrown a bean bag (by the catcher).
- I was promised a raise (by the boss).
- Late arrivals are always denied permission to enter (by the administration).
- I was bequeathed a collection of risqué postcards (by Aunt Maude).
- Kim was allowed two free throws (by the referee).
- *My sister was carved a soap statue of Bugs Bunny (by a famous sculptor).
- (The possibility of dative shifted and passive phenomena co-occurring is seemingly not permitted by Goldberg)
Goldberg’s Six Senses of the Ditransitive Construction

A Central Sense: Agent successfully causes recipient to receive patient
Verbs that inherently signify acts of giving:
give, pass, hand, serve, feed,…
Verbs of instantaneous causation of ballistic motion:
throw, toss, slap, kick, poke, fling, shoot,…
Verbs of continuous causation in a deictically specified direction:
bring, take,…

B Conditions of Satisfaction imply that agent causes recipient to receive patient
Verbs of giving with associated satisfaction conditions:
guarantee, promise, owe,…
C Agent causes recipient not to receive patient. Verbs of refusal: 
  refuse, deny

D Agent acts to cause recipient to receive patient at some future point in time. Verbs of future transfer: leave, bequeath, allocate, reserve, grant,...

E Agent enables recipient to receive patient. Verbs of permission: permit, allow,...

F Agent intends to cause recipient to receive patient. Verbs involved in scenes of creation: bake, make, build, cook, sew, knit,...
Verbs of obtaining: get, grab, win, earn,...
Illustration of Effects of Polysemy Links in Senses of the Ditransitive Construction

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
</table>
| A. | ‘X CAUSES Y TO RECEIVE Z’ (central sense)  
Example: Joe gave Sally the ball. |
| B. | ‘Conditions of satisfaction imply ’X CAUSES Y TO RECEIVE Z’  
Example: Joe promised Bob a car. |
| C. | ‘X CAUSES Y NOT TO RECEIVE Z’  
Example: Joe refused Bob a cookie. |
| D. | ‘X ACTS TO CAUSE Y TO RECEIVE Z at some future pt. in time’  
Example: Joe bequeathed Bob a fortune. |
| E. | ‘X ENABLES Y TO RECEIVE Z’  
Example: Joe permitted Chris an apple. |
| F. | ‘X INTENDS TO CAUSE Y TO RECEIVE Z’  
Example: Joe baked Bob a cake. |
Goldberg: Everything is Construction Unification

- Expression = Basic-Listeme & C₁ & ... & Cₙ
- Transitive-Verb-Listeme & C₁ & ... & Cₙ & C_{Active}
  = Kim visited Sandy.
- Transitive-Verb-Listeme & C₁ & ... & Cₘ & C_{Passive}
  = Sandy was visited by Kim.
In G’s analysis, each of the non-central senses is based on the central sense and is related to it by a distinct polysemy link. Polysemy links ‘capture the nature of the semantic relations between a particular sense of a construction and any extensions from this sense’ (p. 75).

Links themselves are considered objects in G’s theory (p. 74 ff), that is, elements of the grammar.

So G’s theory posits six sets of verb classes, six senses of the ditransitive construction and five distinct polysemy links, each relating the central sense to one of the other five senses.

G does not place any limits on the range of possible individual links within the four major types of link... [NB: A general problem with default-based analyses]
The Abstract Recipient Constructions

Derivational Constructions (\textit{DTR} is a lexeme; \textit{MTR} is a lexeme)

Abstract Recipient Constructs

- Direct RC
  - (give, throw, ...)

- Indirect RC
  - (bake, buy, ...)

- Modal RC
  - (refuse, promise, allow, ...)

Kay’s Intended Recipient Construction

▶️*He was baked a cake on his birthday.
▶️*Janet was written a beautiful sonnet (by Clarence).
▶️*I’ve never been picked flowers before.
▶️ I got the cats some medicine.
▶️_allocative interpretation: I got the rats some poison. (Intended interpretation: I plan to use the poison to kill the rats.)
▶️ Claudine is mixing the neighbor a potion to cure him.
▶️_allocative interpretation: Claudine is mixing the neighbor a potion to murder him.
The Direct Recipient Construction

#I gave/tossed/took him the package but it didn’t move.
#I gave/tossed/took him the package but he didn’t get it.

The Modal Recipient Construction

- Obligation, Futurity, Negation, Possibility
Kay’s Analysis

- Basic listemes with minimal meanings
- Each construction adds appropriate semantics and imposes relevant restrictions.

- Kay denies the existence of a ‘Caused Motion’ Construction
- Instead, he analyzes **sneeze the napkin off the table** as a ‘pattern of coinage’ (Fillmore)
### Illustration of Effects of Polysemy Links in Senses of the Caused Motion Construction

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>‘X CAUSES Y TO MOVE Z’ (central sense)</td>
<td>Pat pushed the piano into the room.</td>
</tr>
<tr>
<td>B</td>
<td>Conditions of satisfaction imply ‘X CAUSES Y TO MOVE Z’</td>
<td>Pat ordered him into the room.</td>
</tr>
<tr>
<td>C</td>
<td>‘X CAUSES Y NOT TO MOVE FROM [sic] Z’</td>
<td>Pat locked Chris into the room.</td>
</tr>
<tr>
<td>D</td>
<td>‘X HELPS Y TO MOVE Z’</td>
<td>Pat assisted Chris into the room.</td>
</tr>
<tr>
<td>E</td>
<td>‘X ENABLES Y TO MOVE Z’</td>
<td>Pat allowed Chris into the room.</td>
</tr>
</tbody>
</table>
What Exactly are Goldberg’s Constructions?

- Schematic Structures?
- \([\text{SUBJ} \ [V \ \text{OBJ} \ \text{OBL}]])\ (Goldberg, 1995, p. 192)
- \(\text{VP} \rightarrow \text{V NP AP/PP}\) (Goldberg and Jackendoff, 2004)
(1) \textit{weil} niemand ihn den Teich leer fischen sah.
fish saw
\textquote{because nobody saw him fish the pond empty}
(10) a. [SUBJ OBJ OBL V]   c. [V SUBJ OBJ OBL]
b. [OBJ SUBJ OBL V]   d. [V OBJ SUBJ OBL]

(12) a. [OBL SUBJ OBJ V]   e. [V OBL SUBJ OBJ]
b. [OBL OBJ SUBJ V]   f. [V OBL OBJ SUBJ]
c. [SUBJ OBL OBJ V]   g. [V SUBJ OBL OBJ]
d. [OBJ OBL SUBJ V]   h. [V OBJ OBL SUBJ]
(2) den Teich, den Richard leer fischt.
the pond which Richard empty fishes.

(14) a. [V SUBJ OBL] (OBJ extracted)
b. [V OBJ OBL] (SUBJ extracted)
c. [V SUBJ OBJ] (OBL extracted)
d. [V OBJ SUBJ] (OBL extracted, OBJ and SUBJ permuted)

(3) Der Teich wurde leer gefischt.
the pond.nom was empty fished
Semantics must be recursive. Krieger and Nerbonne. Kay 1975a,b on English kinship terms.

Ambiguity of morphological construction

Passivization feeds lexical processes; must be lexical (Bresnan 2001 for English)

Passivization feeds inflectional processes; must be lexical in German

Resultative feeds Passive
Great Construction:

\[
\begin{bmatrix}
\text{gnoun-lxm} \\
\text{FORM} \quad \langle \text{great} \rangle \oplus L
\end{bmatrix} \rightarrow \begin{bmatrix}
\text{gnoun-lxm} \\
\text{FORM} \quad L
\end{bmatrix}
\]
Licenses structures like:

\[
\begin{array}{c}
gnou\text{-}lxm \\
\text{FORM } \langle \text{great, great, grandmother} \rangle
\end{array}
\]

\[
\begin{array}{c}
gnou\text{-}lxm \\
\text{FORM } \langle \text{great, grandmother} \rangle
\end{array}
\]

\[
\begin{array}{c}
gnou\text{-}lxm \\
\text{FORM } \langle \text{great, grandmother} \rangle
\end{array}
\]
Problems with Set Unification
Show why construction unification à la Fillmore and Kay and Goldberg is problematic.
Hence, argument-structure phenomena should be analysed as derivational constructions, i.e. 2-level.
Further predicts ambiguities like unlockable
'output' of Able-Adjective Cx—

**adjective-lexeme**

| FORM  | ⟦unlockable⟧ |
| ARG-ST | ⟦NP_j⟧ |
| SYN    | Adj |
| SEM    | ... |

'output' of Un-Verb Cx—

**derived-transitive-verb-lexeme**

| FORM  | ⟦unlock⟧ |
| ARG-ST | ⟦NP_i, NP_j⟧ |
| SYN    | [CAT verb] |
| SEM    | ... |

**strict-transitive-verb-lexeme**

| FORM  | ⟦lock⟧ |
| ARG-ST | ⟦NP_i, NP_j⟧ |
| SYN    | [CAT verb] |
| SEM    | ... |
Preterite Construction ($\uparrow infl\text{-}cxt$)

$$preterite\text{-}cxt \Rightarrow$$

- **Form**: $\langle F_{pret}(X) \rangle$
- **Syn**: $Y : [\text{CAT} [\text{VF} \text{ fin}]]$
- **Ind**: $s$
- **Ltop**: $l_{2 \leq 0}$
- **Sem Frames**: $\langle \text{some-fr} \rangle$
  - **Lbl**: $l_0$
  - **Bv**: $s$
  - **Restr**: $l_1$
- **Sem Frames**: $\langle \text{past-fr} \rangle$
  - **Lbl**: $l_1$
  - **Arg**: $s$
- **Dtrs**: $\langle X \rangle$
- **Arg-st**: $\langle \text{NP}[\text{nom}], \ldots \rangle$
- **Syn**: $Y$
  - **Ind**: $s$
  - **Ltop**: $l_2$
  - **Frames**: $L$
A Preterite Construct

\[\text{word} \langle \text{loved} \rangle\]
\[\text{SYN } 1\]
\[\text{SEM} | \text{FRAMES} \]
\[\text{some-fr}\]
\[\begin{cases}
\text{LBL } l_0 \\
\text{BV } s \\
\text{RESTR } l_1 \\
\text{SCOPE } l_2
\end{cases}\]
\[\text{past-fr}\]
\[\begin{cases}
\text{LBL } l_1 \\
\text{ARG } s
\end{cases}\]
\[\text{loving-fr}\]
\[\begin{cases}
\text{LBL } l_2 \\
\text{SIT } s \\
\text{ACTOR } i \\
\text{UNDGR } j
\end{cases}\]

\[\text{strans-v-lxm}\]
\[\text{FORM} \langle \text{love} \rangle\]
\[\text{SYN } 1\]
\[\text{SEM} | \text{FRAMES} \langle 2 \rangle\]
A Binary Derivational Construct

```
\[
\begin{array}{c}
\text{deriv-cxt} \\
\text{MTR} \begin{array}{c}
\text{FORM} \langle \text{pumpkin, bus} \rangle \\
\ldots
\end{array} \\
\text{DTRS} \left( \begin{array}{c}
\text{FORM} \langle \text{pumpkin} \rangle \\
\ldots
\end{array} , \begin{array}{c}
\text{FORM} \langle \text{bus} \rangle \\
\ldots
\end{array} \right)
\end{array}
\]
```
Sag (in press) on Dative Alternations

ditrans-lxm $\Rightarrow$

\[
\begin{array}{l}
\text{ARG-ST} \quad \langle \NP_x, \NP_z, \NP_y \rangle \\
\text{SEM} \quad \text{FRAMES} \quad \left\langle \begin{array}{l}
\text{caused-poss-fr} \\
\text{AGENT} \quad x \\
\text{THEME} \quad y \\
\text{RECIPIENT} \quad z
\end{array} \right\rangle
\end{array}
\]

to-trans-lxm $\Rightarrow$

\[
\begin{array}{l}
\text{ARG-ST} \quad \langle \NP_x, \NP_y, \PP^t \rangle \\
\text{SEM} \quad \text{FRAMES} \quad \left\langle \begin{array}{l}
\text{caused-motion-fr} \\
\text{AGENT} \quad x \\
\text{THEME} \quad y \\
\text{PATH} \quad s
\end{array} \right\rangle
\end{array}
\]
Sag (in press) on Dative Alternations

caused-poss-fr giving^+-fr . . . throwing^+-fr caused-motion-fr

giving-fr handing-fr . . . throwing-fr . . .

throwing-cp-fr throwing-cm-fr
In any situation framed by a *caused-poss-fr*, where $x$ is the agent, $y$ is the recipient and $z$ is the theme, $x$’s action causes it to be the case that $y$ has $z$.

In any situation framed by a *caused-motion-fr*, where $x$ is the agent, $y$ is the theme, and $z$ is the path, $x$’s action causes it to be the case that $y$ goes along $z$. 
Sag (in press) on Dative Alternations

\[ \text{ditrans-lxm} \Rightarrow \begin{cases} \text{ARG-ST} & \langle \NP_x, \NP_z, \NP_y \rangle \\ \text{SEM} & \text{caused-poss-fr} \\ \text{FRAMES} & \langle \text{AGENT } x, \text{THEME } y, \text{RECIPIENT } z \rangle \end{cases} \]

\[ \text{to-trans-lxm} \Rightarrow \begin{cases} \text{ARG-ST} & \langle \NP_x, \NP_y, \PP_{[to]}^z \rangle \\ \text{SEM} & \text{caused-poss-fr} \\ \text{FRAMES} & \langle \text{AGENT } x, \text{THEME } y, \text{RECIPIENT } z \rangle \end{cases} \]
Sag (in press) on Dative Alternations

trans-motion-lxm \[\Rightarrow\]

\[
\begin{align*}
\text{ARG-ST} & \quad \langle \text{NP}_x, \text{NP}_y, \text{PP}^{[\text{dir}]_s} \rangle \\
\text{SEM} & \quad \text{FRAMES} \\
\text{caused-motion-fr} & \quad \langle \text{AGENT} \; x, \text{THEME} \; y, \text{PATH} \; s \rangle
\end{align*}
\]

- **give-type verbs**: give, hand, lend, loan, rent, sell, …; includes ‘verbs of future having’: allocate, allow, bequeath, forward, grant, offer, promise, …
- **send-type verbs**: mail, send, ship, …
- **throw-type verbs**: fling, flip, kick, lob, slap, shoot, throw, toss, …
Sag (in press) on Dative Alternations

\[
\begin{align*}
\text{trans-verb-lxm} & \\
\text{FORM} & \langle \text{give} \rangle \\
\text{SEM} & \left[ \text{FRAMES} \langle \text{giving-fr} \rangle \right] \\
\text{trans-verb-lxm} & \\
\text{FORM} & \langle \text{send} \rangle \\
\text{SEM} & \left[ \text{FRAMES} \langle \text{sending-fr} \rangle \right] \\
\text{trans-verb-lxm} & \\
\text{FORM} & \langle \text{throw} \rangle \\
\text{SEM} & \left[ \text{FRAMES} \langle \text{throwing-fr} \rangle \right]
\end{align*}
\]
Locative Alternations

- They sprayed the wall with paint.
- They sprayed paint on the wall.
- We loaded the truck with hay.
- We loaded hay onto the truck.

\[
\begin{array}{l}
\text{trans-verb-lxm} \\
\text{FORM } \langle \text{ spray } \rangle \\
\text{SEM } \begin{bmatrix} 
\text{FRAMES } \langle [\text{ spray-fr }] \rangle
\end{bmatrix}
\end{array}
\]
Iwata 2005, 2008

\[ \langle \text{NP, NP, } \text{PP}[^{dir}] \rangle \]

‘X acts upon Y, thereby causing Y to go Z’

\[ \langle \text{NP, NP, } \text{PP}[^{with}] \rangle \]

‘X acts upon Y, by exerting force over the surface.'
Transitive Locative Construction: \( \uparrow_{trans-verb-lxm} \):

\[
\text{trans-loc-lxm} \Rightarrow \\
\begin{align*}
\text{ARG-ST} & \quad \langle \text{NP}_x, \text{NP}_y, \text{PP}[\text{dir}]^s_s, \text{VAL} \langle \text{pro}_y \rangle \rangle \\
\text{SEM} & \quad \text{FRAMES} \\
\text{frames} & \quad \langle \text{loc-motion-fr} \rangle \\
\text{AGENT} & \quad x \\
\text{THEME} & \quad y \\
\text{PATH} & \quad s
\end{align*}
\]
Applicative Construction: ($\uparrow_{\text{trans-verb-lxm}}$):

trans-with-lxm $\Rightarrow$

\[
\begin{align*}
\text{ARG-ST} & \quad \langle \text{NP}_x, \text{NP}_z, \text{PP}_s \rangle \\
\text{SEM} & \\
\text{FRAMES} & \quad \langle \text{loc-with-fr} \rangle \\
& \quad \langle \text{AGENT} \ x \rangle \\
& \quad \langle \text{THEME} \ z \rangle \\
& \quad \langle \text{MEANS} \ s \rangle
\end{align*}
\]
Finding the Way

- The hunters made their way into the forest.
- Bo ate his way across Europe.
- But he consummately ad-libbed his way through a largely secret press meeting. (OUP; cited by Goldberg (1995))
- The players will maul their way up the middle of the field.
He consummately made his way through a largely secret press meeting by means of ad-libbing’.

The players made their way up the middle of the field by means of mauling (people).

She whistled her way out of the room.
‘She exited the room while whistling’

You drank your way through college.
‘You went through college, drinking all the way’
Verb-Way Construction ($\uparrow$deriv-cxt):
A Construct Instantiating the Verb-Way Construction

\[\text{verb-way-cxt}\]

\[\text{derived-intrans-v-lxm}\]

\[
\begin{align*}
\text{FORM} & \quad \langle \text{ad-lib} \rangle \\
\text{ARG-ST} & \quad \langle 1 \rangle \text{NP}_i, \left[ \text{LID } i\text{-way} \right], \left[ \text{XARG} \text{ pron}_i \right], \left[ \text{PP}[\text{dir}] \text{VAL} \langle \text{NP}_i \rangle \right], \text{IND } s_2 \\
\text{SYN} & \quad \left[ \text{CAT verb} \right] \\
\text{IND} & \quad s_1 \\
\text{SEM} & \quad \text{FRAMES} \left[ \begin{aligned}
\text{going-fr} \\
\text{THEME } i \\
\text{PATH } s_2 \\
\text{MEANS } s_1
\end{aligned} \right] \
\end{align*}
\]

\[\text{sintrans-v-lxm}\]

\[
\begin{align*}
\text{FORM} & \quad \langle \text{ad-lib} \rangle \\
\text{ARG-ST} & \quad \langle 1 \rangle \\
\text{SYN} & \quad \left[ \text{CAT verb} \right] \\
\text{IND} & \quad s \\
\text{SEM} & \quad \text{FRAMES} \langle 2 \rangle \\
\end{align*}
\]
\[
\{^{VP} \text{[ad-libbed] [his way] [through a largely secret press meeting]} \}
\]

The napkin was sneezed off the table (by Pat).
[Cau sed Motion]
*The men were drunk silly (by themselves).
[‘Fake’ Reflexive]
*Themselves were drunk silly (by the men).
[‘Fake’ Reflexive]
*His way was lied into the meeting (by Chris).
[X’s Way]
Caused-Motion Construction

\[
\text{trans-caused-motion-verb-lxm (trans-cmv-lxm)}
\]

\[
\text{FORM } \begin{cases} \langle X \rangle \end{cases}
\]

\[
\text{ARG-ST } \begin{cases} PP[\text{dir}] \end{cases}
\]

\[
\text{ARG-ST } \begin{cases} Z_i, \text{NP}_i, \begin{cases} \text{VAL} \langle \text{NP}_i \rangle \end{cases} \end{cases}
\]

\[
\text{ARG-ST } \begin{cases} \text{IND } s_2 \end{cases}
\]

\[
\text{SEM } \text{IND } s_0
\]

\[
\text{SEM } \text{FRAMES } \begin{cases} \text{caus-fr} \end{cases}
\]

\[
\text{SEM } \begin{cases} \text{LBL } s_0 \end{cases}
\]

\[
\text{SEM } \begin{cases} \text{CAUSE } s_1 \end{cases}
\]

\[
\text{SEM } \begin{cases} \text{EFFECT } s_2 \end{cases}
\]

\[
\text{SEM } \oplus L_1
\]

\[
\text{DTRS } \begin{cases} \text{FORM } \langle X \rangle \end{cases}
\]

\[
\text{DTRS } \begin{cases} \text{ARG-ST } \langle Z \rangle \end{cases}
\]

\[
\text{DTRS } \begin{cases} \text{SYN } Y : [\text{CAT } \text{verb}] \end{cases}
\]

\[
\text{DTRS } \begin{cases} \text{SEM } \text{IND } s_1 \end{cases}
\]

\[
\text{DTRS } \begin{cases} \text{SEM } \text{FRAMES } L_1 \end{cases}
\]

\[
\text{caused-mot-cxt } \Rightarrow
\]
Caused-Motion Analysis Tree

```
[ FORM ⟨ sneezed, it, off, ... ⟩ ]
[ SYN [ VAL ⟨ NP[nom] ⟩ ] ]

word
[ FORM ⟨ sneezed ⟩ ]
[ SYN [ VAL ⟨ NP[nom], 2, 3 ⟩ ] ]

trans-cmv-lxm
[ FORM ⟨ sneeze ⟩ ]
[ SYN [ VAL ⟨ NP, 2, 3 ⟩ ] ]

sintrans-v-lxm
[ FORM ⟨ sneeze ⟩ ]
[ SYN [ VAL ⟨ NP ⟩ ] ]
```

[2] FORM ⟨ it ⟩
[ SYN NP ]

[3] FORM ⟨ off... ⟩
[ SYN PP ]
How to collapse the treatment of transitive and intransitive verbs:

She sneezed the napkin *(off the table).
She hit the ball (off the table).

Why is the MTR in the CMC a \textit{trans-v-lxm}?
Passive

\[ \text{passive-cxt} \Rightarrow \]

\[ \begin{align*}
\text{MTR} & \quad \begin{bmatrix}
\text{der-intr-v-lxm} \\
\text{FORM} & \langle F_{\text{pastp}}(Y) \rangle \\
\text{SYN} & X : [\text{CAT} \ [\text{VF pas}]] \\
\text{ARG-ST} & L \oplus \langle (\text{PP}[by]_i) \rangle
\end{bmatrix} \\
\text{DTRS} & \quad \begin{bmatrix}
\text{trans-v-lxm} \\
\text{FORM} & \langle Y \rangle \\
\text{SYN} & X \\
\text{ARG-ST} & \langle \text{NP}_i \rangle \oplus L
\end{bmatrix}
\end{align*} \]
[FORM ⟨sneezed, off, the, chair, by, Bo⟩]
SYN [VAL ⟨NP⟩]

word
FORM ⟨sneezed⟩
SYN [VAL ⟨2, 3, 4⟩]

3
FORM ⟨off, the, chair⟩
SYN PP

4
FORM ⟨by, Bo⟩
SYN PP[by]

der-intr-v-lxm
FORM ⟨sneezed⟩
SYN [VAL ⟨2, 3, 4⟩]

sintrans-v-lxm
FORM ⟨sneeze⟩
SYN [VAL ⟨NP⟩]
Kim prevented Pat [from reading Proust].
**Kim prevented Pat [for/to... reading Proust].
**Kim prevented Pat [from (to) read Proust].
**Kim prevented Pat [from the Proust recital].

This prevent is a raising verb:

▶ She prevented there from being a riot in the square.
▶ The high pressure concentration to the north prevented it from raining on our party.
In American English, *from* functions as a marker (not a head) when it cooccurs with *prevent*.

v. Van Eynde 2007 on head-functor phrases, using *SELECT.*
cf. also Abeillé, Bonami, Godard, and Tseng 2005, 2006 on weak heads in French.

Predicts: What did you prevent them from *(doing)*?
## Some MARKING Values (bis)

<table>
<thead>
<tr>
<th>Marking</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>marking</td>
<td>the most general marking value - a supertype of the rest</td>
</tr>
<tr>
<td>unmk</td>
<td>phrases that aren’t marked, e.g. <em>we read</em></td>
</tr>
<tr>
<td>than</td>
<td>compared phrases, e.g. <em>than we read</em></td>
</tr>
<tr>
<td>as</td>
<td>equated phrases, e.g. <em>as I could</em></td>
</tr>
<tr>
<td>of</td>
<td>some of-phrases, e.g. <em>of mine</em></td>
</tr>
<tr>
<td>det</td>
<td>‘determined’ nominal signs (see below)</td>
</tr>
<tr>
<td>a</td>
<td>a subtype of <em>det</em>, e.g. <em>a book</em></td>
</tr>
<tr>
<td>def</td>
<td>definite nominal signs, i.e. <em>the table, Prince, we</em></td>
</tr>
</tbody>
</table>
Head-Functor Construction:

\[
hd\text{-}func\text{-}cxt \Rightarrow \left[ \begin{array}{c}
\text{MTR} \quad \text{[SYN } X ! [\text{MRKG } M ]] \\
\text{DTRS} \quad \langle \text{SYN} \left[ \begin{array}{c}
\text{CAT} \quad [\text{SELECT } Y ] \\
\text{MRKG } M
\end{array} \right], \ Y : [\text{SYN } X] \rangle
\end{array} \right]
\]
hd-func-cxt

\[
\begin{align*}
\text{FORM } & \langle a, \text{puppy} \rangle \\
\text{CAT} & \begin{bmatrix} 3 \\ \text{SELECT} \\ \text{none} \end{bmatrix} \\
\text{SYN} & \begin{bmatrix} \text{noun} \\ \text{val} \langle \rangle \\ \text{mrkg} \ 2a \end{bmatrix} \\
\text{MRKG} & \begin{bmatrix} 2a \end{bmatrix} \\
\end{align*}
\]

\[
\begin{align*}
\text{FORM } & \langle a \rangle \\
\text{CAT} & \begin{bmatrix} \text{det} \\ \text{SELECT} \ 1 \end{bmatrix} \\
\text{SYN} & \begin{bmatrix} \text{val} \langle \rangle \\ \text{mrkg} \ 2a \end{bmatrix} \\
\text{MRKG} & \begin{bmatrix} 2a \end{bmatrix} \\
\end{align*}
\]

\[
\begin{align*}
\text{FORM } & \langle \text{puppy} \rangle \\
\text{CAT} & \begin{bmatrix} 3 \\ \text{SELECT} \\ \text{none} \end{bmatrix} \\
\text{SYN} & \begin{bmatrix} \text{noun} \\ \text{val} \langle \rangle \\ \text{mrkg} \ unmk \end{bmatrix} \\
\end{align*}
\]
\[
\begin{align*}
\text{FORM} & \quad \langle \text{from} \rangle \\
\text{SYN} & \quad \begin{cases}
\text{CAT} & \text{MRKG} \quad \langle \text{from} \rangle \\
\text{SELECT} & \text{VP} [\text{ger}] \\
\text{VAL} & \langle \rangle
\end{cases}
\end{align*}
\]

\[
\begin{align*}
\text{FORM} & \quad \langle \text{prevent} \rangle \\
\text{SYN} & \quad \begin{cases}
\text{CAT} & \text{verb} \\
\text{VAL} & \langle \text{NP}, \text{X}, \text{VP} \rangle \\
\text{MRKG} & \langle \text{from} \rangle \\
\text{VAL} & \langle \text{X} \rangle
\end{cases}
\end{align*}
\]
<table>
<thead>
<tr>
<th>Category</th>
<th>Label</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cat</td>
<td>Prep</td>
<td><code>to-fr</code></td>
</tr>
<tr>
<td>Syn</td>
<td>LID</td>
<td><code>to-fr</code></td>
</tr>
<tr>
<td></td>
<td>MRKG</td>
<td><code>none</code></td>
</tr>
<tr>
<td>Val</td>
<td>Syn</td>
<td>NP[i]</td>
</tr>
<tr>
<td></td>
<td>Sem</td>
<td>[INDEX i]</td>
</tr>
<tr>
<td></td>
<td>Syn</td>
<td>NP[acc]</td>
</tr>
<tr>
<td></td>
<td>Sem</td>
<td>[INDEX j]</td>
</tr>
<tr>
<td>Index</td>
<td>i</td>
<td></td>
</tr>
<tr>
<td>Frames</td>
<td>to-fr</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Undgr</td>
<td>i</td>
</tr>
<tr>
<td></td>
<td>Goal</td>
<td>j</td>
</tr>
</tbody>
</table>
Who did you give the dog to __ ?
*What did you prevent the dog from __ ?
What did you prevent the dog from doing __ ?
Some Types of Phrasal Combinatoric Constructs

\[
\text{linguistic-object} \\
\quad \Downarrow \quad \text{construct} \\
\quad \quad \Downarrow \quad \text{phrasal-cxt} \\
\quad \quad \quad \Downarrow \quad \text{headed-cxt} \\
\quad \quad \quad \quad \Downarrow \quad \text{head-comp-cxt} \quad \text{subj-head-cxt} \\
\quad \quad \quad \quad \quad \Downarrow \quad \text{pred-hd-comp-cxt} \quad \text{sat-hd-comp-cxt} \quad \Downarrow \quad \text{subj-pred-cl}
\]
Predicational Head-Complement Construction ($\uparrow\text{hd-cxt}$):

\[
\text{pred-hd-comp-cxt} \Rightarrow \begin{bmatrix}
\text{MTR} & \begin{bmatrix} \text{SYN} & \ X ! [\text{VAL} & \langle Y \rangle] \end{bmatrix} \\
\text{DTRS} & \langle Z \rangle \oplus L : \text{nelist} \\
\text{HD-DTR} & \begin{bmatrix} \text{word} \\
\text{SYN} & \ X : \begin{bmatrix} \text{CAT} & [\text{XARG} & Y] \\
\text{VAL} & \langle Y \rangle \oplus L \end{bmatrix} \end{bmatrix} \\
\end{bmatrix}
\]
pred-hd-comp-cxt

\[
\begin{align*}
\text{phrase} & \quad \text{FORM } \langle \text{loves, them} \rangle \\
\text{SYN} & \quad \text{CAT } 3 \\
& \quad \text{AUX} \quad \text{FIN} \\
& \quad \text{XARG} \quad \text{NP} \\
& \quad \text{SELECT none} \\
\text{VAL} & \quad \langle 1 \rangle
\end{align*}
\]

\[
\begin{align*}
\text{word} & \quad \text{FORM } \langle \text{loves} \rangle \\
\text{SYN} & \quad \text{CAT } 3 \\
& \quad \text{AUX} \quad \text{FIN} \\
& \quad \text{XARG} \quad \text{NP} \\
& \quad \text{SELECT none} \\
\text{VAL} & \quad \langle 1, 2 \rangle
\end{align*}
\]

\[
\begin{align*}
\text{word} & \quad \text{FORM } \langle \text{them} \rangle \\
\text{SYN} & \quad \text{CAT} \\
& \quad \text{CASE acc} \\
& \quad \text{...}
\end{align*}
\]
Saturational Head-Complement Construction ($\uparrow^{hd-cxt}$):

\[
\text{sat-hd-comp-cxt} \Rightarrow \begin{cases}
\text{MTR} & \text{[SYN } X \text{ ! [VAL } \langle \rangle \text{]]} \\
\text{DTRS} & \langle Z \rangle \oplus L : \text{nelist} \\
\text{HD-DTR} & Z : \text{word} \\
& \text{SYN } X : \begin{cases}
\text{CAT} & \text{prep} \\
\text{XARG} & \text{none}
\end{cases} \\
& \text{VAL } L
\end{cases}
\]
FORM $\langle$ of, Pat $\rangle$

\[
\begin{array}{c}
\text{prep} \\
\text{CAT} & \text{XARG} & \text{none} \\
\text{SYN} & \text{SELECT} & \text{none} \\
\text{VAL} & \langle \rangle \\
\text{MRKG} & \text{unmk}
\end{array}
\]

FORM $\langle$ of $\rangle$

\[
\begin{array}{c}
\text{adj} \\
\text{CAT} & \text{XARG} & \text{none} \\
\text{SYN} & \text{SELECT} & \text{none} \\
\text{VAL} & \langle 1 \rangle \\
\text{MRKG} & \text{unmk}
\end{array}
\]

FORM $\langle$ Pat $\rangle$

\[
\begin{array}{c}
noun \\
\text{CAT} & \text{XARG} & \text{none} \\
\text{SYN} & \text{SELECT} & \text{none} \\
\text{VAL} & \langle \rangle
\end{array}
\]

sat-hd-comp-cxt