Yucatec Maya: Grammar Signature

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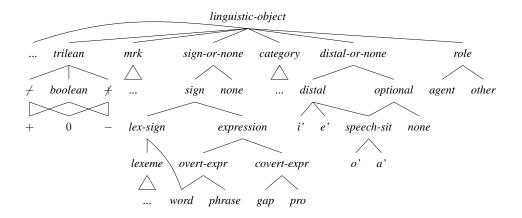
Brown University

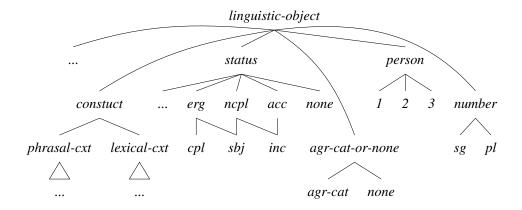
October 25, 2017

A Grammar Signature

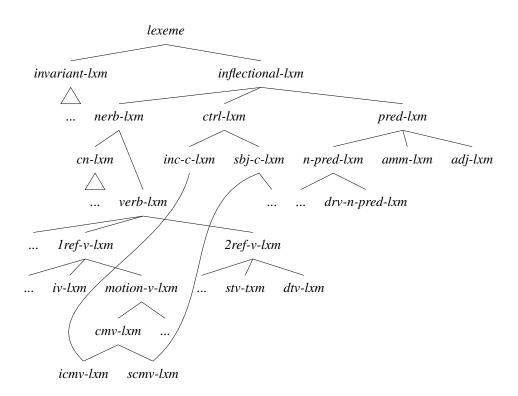
A.1 A Partial Type Hierarchy

A.1.1 linguistic object

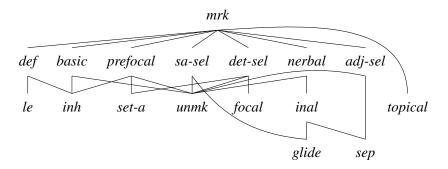




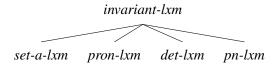
A.1.2 lexeme



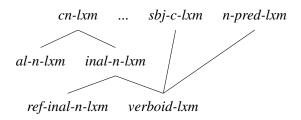
A.1.3 mrk



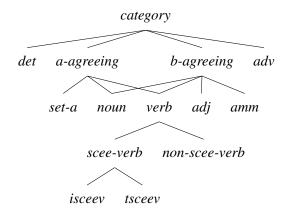
A.1.4 invariant-lxm



A.1.5 *cn-lxm*

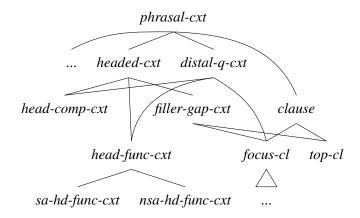


A.1.6 category

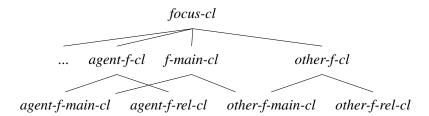


 $\neg set$ -a: everything that is not set-a.

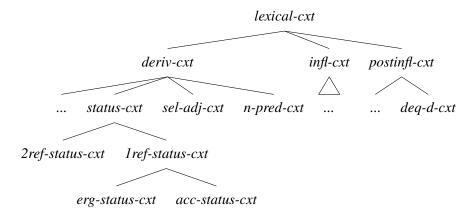
A.1.7 phrasal-cxt



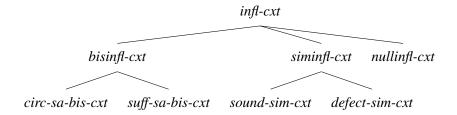
A.1.8 focus-cl



A.1.9 lexical-cxt



A.1.10 infl-cxt



A.2 Type Declarations

A.2.1 sign

$$sign: \begin{bmatrix} FORM & morph-obj \\ SYN & syn-obj \end{bmatrix}$$

$$lex$$
- $sign$: $\begin{bmatrix} ARG$ - ST $list(expression) \end{bmatrix}$

$$syn\text{-}obj: \begin{bmatrix} \mathsf{CAT} & category \\ \mathsf{VAL} & list(expression) \\ \mathsf{GAP} & list(expression) \\ \mathsf{MRKG} & mark \\ \mathsf{ENQ-D} & distal\text{-}or\text{-}none \\ \mathsf{DEQ-D} & distal\text{-}or\text{-}none \end{bmatrix}$$

A.2.2 construct

$$lex-cxt: \begin{bmatrix} DTRS & list(lex-sign) \end{bmatrix}$$

$$deriv\text{-}cxt: \begin{bmatrix} MTR & lexeme \\ DTRS & list(lexeme) \end{bmatrix}$$

$$infl\text{-}cxt: \begin{bmatrix} \text{MTR} & word \\ \text{DTRS} & list(lexeme) \end{bmatrix}$$

$$postinfl\text{-}cxt: \begin{bmatrix} \mathsf{MTR} & word \\ \mathsf{DTRS} & \mathit{list(word)} \end{bmatrix}$$

$$phr\text{-}cxt: \begin{bmatrix} \mathsf{MTR} & phrase \\ \mathsf{DTRS} & list(overt\text{-}expr) \end{bmatrix}$$

$$headed\text{-}cxt: egin{bmatrix} \text{HD-DTR} & \textit{overt-expr} \end{bmatrix}$$

A.2.3 category

$$b$$
-agreeing: $\begin{bmatrix} AGR-B & agr\text{-}cat\text{-}or\text{-}none \end{bmatrix}$

A.2.4 agr-cat

$$agr\text{-}cat: \begin{bmatrix} \text{PERSON} & person \\ \text{NUMBER} & number \end{bmatrix}$$

A.3 General Types

 $\textit{subjunctive-controllee-verb} \Rightarrow \left[\ \ \right]$

$$intransitive$$
-subjunctive-controllee-verb $\Rightarrow \begin{bmatrix} \text{SET-A} & 0 \\ \text{AGR-B} & none \\ \text{STATUS} & inc \end{bmatrix}$

$$transitive\text{-}subjunctive\text{-}controllee\text{-}verb \Rightarrow \begin{bmatrix} \text{SET-A} & + \\ \text{ARG-B} & agr\text{-}cat \\ \text{STATUS} & sbj \end{bmatrix}$$

non-subjunctive-controllee-verb $\Rightarrow [$

A.4 Lexical-Class Constructions

$$lexeme \Rightarrow \begin{bmatrix} & & \begin{bmatrix} SELECT & /none \\ PRED & /- \\ SET-A & /\neq \end{bmatrix} \end{bmatrix}$$

$$\begin{bmatrix} MRKG & /unmk \\ ENQ-D & /none \\ DEQ-D & /none \end{bmatrix}$$

$$ARG-ST & /\langle \rangle$$

$$set-a-lexeme \Rightarrow \begin{bmatrix} SYN & \begin{bmatrix} set-a & & & \\ SELECT & \begin{bmatrix} AGR-A & \boxed{1} \\ MRKG & sa-sel \end{bmatrix} \\ MRKG & set-a \end{bmatrix} \end{bmatrix}$$

$$pronoun-lexeme \Rightarrow \begin{bmatrix} & & \begin{bmatrix} noun & \\ AGR-A & none \\ AGR-B & agr-cat \end{bmatrix} \end{bmatrix}$$

$$determiner-lexeme \Rightarrow \begin{bmatrix} SYN & \begin{bmatrix} det \\ SELECT & NP[MRKG & det-sel] \\ MRKG & def \\ ENQ-D & optional \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

$$proper-noun-lexeme \Rightarrow \begin{bmatrix} SYN & \begin{bmatrix} noun & \\ AGR-A & none \\ AGR-B & 3sg \end{bmatrix} \end{bmatrix}$$

$$MRKG \quad inh$$

$$nerb\text{-}lexeme \Rightarrow egin{bmatrix} \mathtt{SYN} & \begin{bmatrix} \mathtt{MRKG} & nerbal \end{bmatrix} \end{bmatrix}$$

$$common-noun-lexeme \Rightarrow \begin{bmatrix} SYN & \begin{bmatrix} noun & \\ AGR-B & 3 \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

$$alienable$$
-noun-lexeme $\Rightarrow \begin{bmatrix} SYN & \begin{bmatrix} CAT & \begin{bmatrix} AGR-A & none \end{bmatrix} \end{bmatrix} \\ MRKG & unmk \end{bmatrix}$

$$inalienable-noun-lexeme \Rightarrow \begin{bmatrix} & & \begin{bmatrix} \text{SET-A} & \neq \\ \text{AGR-A} & \boxed{1} \end{bmatrix} \\ & & \begin{bmatrix} \text{MRKG} & inal \\ \text{ENQ-D} & optional \end{bmatrix} \\ & & \begin{bmatrix} \text{ARG-ST} & \left\langle \text{NP} \begin{bmatrix} \text{AGR-B} & \boxed{1} \end{bmatrix}, \dots \right\rangle \end{bmatrix}$$

 $\textit{referential-inalienable-noun-lexeme} \Rightarrow \left[\texttt{ARG-ST} \quad \left\langle X \right\rangle \right]$

$$\textit{verboid-lexeme} \Rightarrow \begin{bmatrix} \mathsf{AGR-ST} & \left\langle \begin{bmatrix} \mathsf{AGR-B} & \mathbb{1} \end{bmatrix}, \begin{bmatrix} \mathsf{AGR-A} & \mathbb{1} \end{bmatrix} \right\rangle \end{bmatrix}$$

$$verb$$
-lexeme $\Rightarrow \begin{bmatrix} SYN & \begin{bmatrix} CAT & verb \\ STATUS & none \end{bmatrix} \end{bmatrix}$

$$\begin{bmatrix} ARG$$
-ST $nelist(/NP) \end{bmatrix}$

$$\textit{lref-verb-lexeme} \Rightarrow \left[\texttt{SYN} \quad \left[\texttt{ARG-ST} \quad \left\langle X^o, \ldots \right\rangle \right] \right]$$

$$\mathit{intransitive-verb-lexeme} \Rightarrow \begin{bmatrix} \mathtt{SYN} & \begin{bmatrix} \mathtt{ARG-ST} & \left\langle \mathbf{X} \right\rangle \end{bmatrix} \end{bmatrix}$$

$$\textit{motion-verb-lexeme} \Rightarrow \left[\text{SYN} \quad \left[\text{ARG-ST} \quad \left\langle X, \begin{bmatrix} \text{MRKG} & \textit{prefocal} \\ \text{ROLE} & \textit{other} \end{bmatrix}, \dots \right\rangle \right] \right]$$

MRKG of motion-verb-lexeme's argument is pending further research.

$$control\text{-}motion\text{-}verb\text{-}lexeme \Rightarrow \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{AGR-B} & \boxed{1}, X, \\ \begin{bmatrix} \text{AGR-A} & \boxed{1} \\ \text{ROLE} & other \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

 $incompletive\text{-}control\text{-}motion\text{-}verb\text{-}lexeme \Rightarrow \begin{bmatrix} \ \ \end{bmatrix}$

 $\textit{subjunctive-control-verb-lexeme} \Rightarrow \left[\ \ \right]$

$$\textit{2ref-verb-lexeme} \Rightarrow \left[\texttt{SYN} \quad \left[\texttt{ARG-ST} \quad \left\langle X^a, X^o, \ldots \right\rangle \right] \right]$$

$$\textit{strict-transitive-verb-lexeme} \Rightarrow \left[\texttt{SYN} \quad \left[\texttt{ARG-ST} \quad \left\langle X, X \right\rangle \right] \right]$$

$$\textit{ditransitive-verb-lexeme} \Rightarrow \left[\texttt{SYN} \quad \left[\texttt{ARG-ST} \quad \left\langle X, X, X^o \right\rangle \right] \right]$$

$$control\text{-}lexeme \Rightarrow \begin{bmatrix} SYN & ARG-ST & ... & VP[AGR-A & agr-cat] \end{bmatrix}$$

$$incompletive\text{-}control\text{-}lexeme \Rightarrow \left[\text{SYN} \quad \left[\text{AGR-ST} \quad \left\langle \dots \left[\text{STATUS} \quad inc \right] \right\rangle \right] \right]$$

$$subjunctive\text{-}control\text{-}lexeme \Rightarrow \left[\text{SYN} \quad \left[\text{AGR-ST} \quad \left\langle \dots \left[\text{scee-verb} \right] \right\rangle \right] \right]$$

$$predicate-lexeme \Rightarrow \begin{bmatrix} SYN & \begin{bmatrix} CAT & [PRED & +] \end{bmatrix} \\ ARG-ST & nelist \end{bmatrix}$$

$$nominal\text{-}predicate\text{-}lexeme \Rightarrow \begin{bmatrix} SYN & \begin{bmatrix} CAT & noun \end{bmatrix} \end{bmatrix}$$

$$am ext{-}marker ext{-}lexeme \Rightarrow \begin{bmatrix} ext{SYN} & \begin{bmatrix} ext{CAT} & \begin{bmatrix} ext{}am ext{-}marker \\ ext{AGR-B} & /none \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

$$adjective-lexeme \Rightarrow \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{CAT} & \begin{bmatrix} adjective \\ \text{AGR-B} & \boxed{1} \end{bmatrix} \end{bmatrix} \\ \text{ARG-ST} & \left\langle \text{NP} \begin{bmatrix} \text{AGR-B} & \boxed{1} \end{bmatrix} \right\rangle \end{bmatrix}$$

$$derived-nominal-predicate-lexeme \Rightarrow \begin{bmatrix} SYN & \begin{bmatrix} AGR-B & \boxed{1} \end{bmatrix} \\ ARG-ST & \left\langle \dots & NP \begin{bmatrix} AGR-B & \boxed{1} \end{bmatrix} \right\rangle \end{bmatrix}$$

A.5 Combinatoric Constructions

A.5.1 Phrasal Constructions

$$phrasal\text{-}ctx \Rightarrow \begin{bmatrix} \text{MTR} & \begin{bmatrix} \text{FORM} & \mathbb{N} \oplus \mathbb{D} \oplus \ldots \oplus \mathbb{W} \\ \text{GAP} & / \boxed{A} \oplus \boxed{B} \oplus \ldots \oplus \boxed{Z} \end{bmatrix} \\ \text{DTRS} & \left\langle \begin{bmatrix} \text{FORM} & \mathbb{N} \\ \text{GAP} & \boxed{A} \end{bmatrix}, \begin{bmatrix} \text{FORM} & \mathbb{D} \\ \text{GAP} & \boxed{B} \end{bmatrix}, \ldots \begin{bmatrix} \text{FORM} & \mathbb{W} \\ \text{GAP} & \boxed{Z} \end{bmatrix} \right\rangle \end{bmatrix}$$

$$headed-cxt \Rightarrow \begin{bmatrix} MTR & \begin{bmatrix} CAT & /1 \\ VAL & /2 \\ MRKG & /3 \end{bmatrix} \\ HD-DTR & \begin{bmatrix} CAT & /1 \\ VAL & /2 \\ MRKG & /3 \end{bmatrix} \end{bmatrix}$$

$$distal-queue-cxt \Rightarrow \begin{bmatrix} \text{MTR} & \begin{bmatrix} \text{ENQ-D} & \text{F}_{\text{max}}(\mathbb{I}, \mathbb{2}, \dots \ n-1, \ n) \\ \text{DEQ-D} & m \end{bmatrix} \\ \text{DTRS} & \begin{bmatrix} \text{ENQ-D} & \mathbb{I} \\ \text{DEQ-D} & none \end{bmatrix}, \dots \\ \dots \begin{bmatrix} \text{ENQ-D} & [n-1] \\ \text{DEQ-D} & none \end{bmatrix}, \begin{bmatrix} \text{ENQ-D} & [n-1] \\ \text{DEQ-D} & none \end{bmatrix} \end{bmatrix}$$

$$head-functor-cxt \Rightarrow \begin{bmatrix} MTR & \begin{bmatrix} MRKG & \boxed{1} \end{bmatrix} \\ DTRS & \left\langle \begin{bmatrix} SELECT & \boxed{2} \\ MRKG & \boxed{1} \end{bmatrix}, \boxed{2} \right\rangle \\ HD-DTR & \boxed{2} \end{bmatrix}$$

$$set\text{-}a\text{-}head\text{-}functor\text{-}cxt \Rightarrow \begin{bmatrix} \mathsf{MTR} & \left[\mathsf{SET}\text{-}\mathsf{A} & + \right] \\ \mathsf{DTRS} & \left\langle \begin{bmatrix} \mathsf{CAT} & set\text{-}a \end{bmatrix}, \begin{bmatrix} \mathsf{SET}\text{-}\mathsf{A} & - \end{bmatrix} \right\rangle \end{bmatrix}$$

$$non\text{-}set\text{-}a\text{-}head\text{-}functor\text{-}cxt \Rightarrow } \Bigg[ext{DTRS} \quad \bigg\langle \Big[ext{CAT} \quad \neg set\text{-}a \Big], \, \dots \bigg\rangle \Bigg]$$

$$head\text{-}complement\text{-}cxt \Rightarrow \begin{bmatrix} \text{MTR} & \left[\text{VAL} \left\langle \right\rangle \right] \\ \text{DTRS} & \left\langle \mathbb{I}, \ \mathbb{2}, \ \mathbb{3}, \dots \ \mathbb{n} \right\rangle \\ \text{HD-DTR} & \mathbb{I} \begin{bmatrix} \text{SET-A} & \neq \\ \text{VAL} & \left\langle \mathbb{2}, \ \mathbb{3}, \dots \ \mathbb{n} \right\rangle \end{bmatrix} \end{bmatrix}$$

$$filler-gap-cxt \Rightarrow \begin{bmatrix} MTR & \begin{bmatrix} GAP & \boxed{A} \end{bmatrix} \\ DTRS & \left\langle \boxed{1}, \begin{bmatrix} SET-A & /+ \\ GAP & \left\langle \boxed{1} \right\rangle \oplus \boxed{A} \end{bmatrix} \right\rangle$$

$$focus\text{-}cl \Rightarrow egin{bmatrix} \mathsf{MTR} & \left[\mathsf{MRKG} & focal
ight] \\ \mathsf{DTRS} & \left\langle \boxed{1}, \left[\mathsf{VAL} & \left\langle \right\rangle \right] \right\rangle \\ \mathsf{HD}\text{-}\mathsf{DTR} & \boxed{1} \left[\mathsf{MRKG} & prefocal \right] \end{bmatrix}$$

$$other-focus-cl \Rightarrow \left[ext{DTRS} \quad \left\langle X, \begin{bmatrix} ext{PRED} & + \\ ext{MRKG} & prefocal \end{bmatrix} \right\rangle \right]$$

$$\mathit{agent-focus-cl} \Rightarrow \left[\mathsf{DTRS} \ \left\langle X, \begin{bmatrix} \mathsf{verb} \\ \mathsf{SET-A} & 0 \\ \mathsf{STATUS} & \mathit{ncpl} \end{bmatrix} \right] \right\rangle$$

$$agent-focus-main-cl \Rightarrow []$$

$$other-focus-main-cl \Rightarrow [\]$$

$$agent$$
-focus-relative- $cl \Rightarrow [$

$$other-focus-relative-cl \Rightarrow \begin{bmatrix} \ \end{bmatrix}$$

$$topical\text{-}cl \Rightarrow \begin{bmatrix} \text{MTR} & \begin{bmatrix} \text{MRKG} & topical \end{bmatrix} \\ \text{DTRS} & \left\langle 2 \begin{bmatrix} \text{ENQ-D} & 3 \\ \text{DEQ-D} & F_{\text{max}}(e', 3) \end{bmatrix}, 4 \begin{bmatrix} \text{CAT} & \begin{bmatrix} \text{PRED} & + \end{bmatrix} \\ \text{VAL} & \left\langle \right\rangle \\ \text{GAP} & \left\langle 2 \right\rangle \oplus \mathbf{L} \\ \text{MRKG} & mrk \\ \text{ENQ-D} & 1 \\ \text{DEQ-D} & 1 \end{bmatrix} \right)$$

$$\text{HD-DTR} \quad 4$$

A.5.2 Lexical Constructions

$$status-cxt \Rightarrow \begin{bmatrix} MTR & /\boxed{1} ! & FORM & \left\langle F_{status}(2, \boxed{3}) \right\rangle \\ STATUS & \boxed{3} \end{bmatrix}$$

$$DTRS & \left\langle /\boxed{1} & FORM & \left\langle \boxed{2} \right\rangle \\ STATUS & none \end{bmatrix} \right\rangle$$

$$2ref\text{-}status\text{-}cxt \Rightarrow \begin{bmatrix} MTR & \begin{bmatrix} SET\text{-}A & \# \\ AGR\text{-}A & \boxed{1} \\ AGR\text{-}B & \boxed{2} \end{bmatrix} \end{bmatrix}$$

$$DTRS & \begin{bmatrix} 2ref\text{-}v\text{-}lxm \\ ARG\text{-}ST & \begin{bmatrix} AGR\text{-}B & \boxed{1} \end{bmatrix}, \begin{bmatrix} AGR\text{-}B & \boxed{2} \end{bmatrix}, \dots \end{bmatrix} \end{bmatrix}$$

$$lref$$
-status- $cxt \Rightarrow \left[DTRS \left\langle \left[lref$ - v - $lxm \right] \right\rangle \right]$

$$ergative\text{-}status\text{-}cxt \Rightarrow \begin{bmatrix} \text{MTR} & \begin{bmatrix} \text{SET-A} & \neq \\ \text{AGR-A} & none \\ \text{AGR-B} & \boxed{1} \\ \text{STATUS} & erg \end{bmatrix} \end{bmatrix}$$

$$DTRS & \left\langle \begin{bmatrix} \text{ARG-ST} & \left\langle \begin{bmatrix} \text{AGR-B} & \boxed{1} \end{bmatrix}, \dots \right\rangle \end{bmatrix} \right\rangle$$

$$accusative\text{-}status\text{-}cxt \Rightarrow \begin{bmatrix} \text{MTR} & \begin{bmatrix} \text{SET-A} & \neq \\ \text{AGR-A} & \boxed{1} \\ \text{AGR-B} & none \\ \text{STATUS} & acc \end{bmatrix} \end{bmatrix}$$

$$DTRS & \left\langle \begin{bmatrix} \text{ARG-ST} & \left\langle \begin{bmatrix} \text{AGR-B} & \boxed{1} \end{bmatrix}, \dots \right\rangle \end{bmatrix} \right\rangle$$

$$selectional-adjective-cxt \Rightarrow \begin{bmatrix} \text{MTR} & \boxed{1}! \\ \text{SELECT} & \begin{bmatrix} \text{CAT} & \begin{bmatrix} noun \\ \text{MRKG} & adj\text{-sel} \end{bmatrix} \end{bmatrix} \end{bmatrix} \\ \text{DTRS} & \left\langle \boxed{1} \begin{bmatrix} \text{CAT} & adj \end{bmatrix} \right\rangle$$

$$nominal\text{-}predicate\text{-}cxt \Rightarrow \begin{bmatrix} drv\text{-}n\text{-}pred\text{-}lxm \\ CAT & \begin{bmatrix} AGR\text{-}B & agr\text{-}cat \end{bmatrix} \\ ARG\text{-}ST & \boxed{A} \oplus \left\langle X \right\rangle \end{bmatrix} \end{bmatrix}$$

$$DTRS & \left\langle \begin{bmatrix} CAT & noun \\ DEQ\text{-}D & none \\ ARG\text{-}ST & \boxed{A} \end{bmatrix} \right\rangle$$

$$\textit{bisinflectional-cxt} \Rightarrow \left[\texttt{DTRS} \quad \left\langle \begin{bmatrix} \textit{infl-lxm} \\ \texttt{SET-A} & \neq \end{bmatrix} \right\rangle \right]$$

$$\begin{bmatrix} \text{MTR} & \boxed{1} ! \begin{bmatrix} \text{FORM} & \left\langle \begin{matrix} F_{\text{circ-A\&B}}(2), \\ \boxed{3}, \boxed{4} \end{matrix} \right) \end{bmatrix} \end{bmatrix}$$

$$circumfix\text{-set-a-bisinflectional-cxt} \Rightarrow \begin{bmatrix} \text{FORM} & \left\langle 2 \right\rangle \\ \text{CAT} & \begin{bmatrix} \text{AGR-A} & \boxed{3} \\ \text{AGR-B} & \boxed{4} \end{bmatrix} \end{bmatrix}$$

$$\text{MRKG glide}$$

$$suffix-set-a-bisinflectional-cxt \Rightarrow \begin{bmatrix} MTR & \boxed{1}! \begin{bmatrix} FORM & \left\langle F_{suff-A\&B}(\boxed{2}, \boxed{3}, \boxed{4}) \right\rangle \end{bmatrix} \\ DTRS & \left\langle \boxed{1} \begin{bmatrix} FORM & \left\langle \boxed{2} \right\rangle \\ CAT & \begin{bmatrix} AGR-A & \boxed{3} \\ AGR-B & \boxed{4} \end{bmatrix} \right\rangle \\ MRKG & sep \end{bmatrix}$$

$$siminfectional\text{-}cxt \Rightarrow \begin{bmatrix} \text{MTR} & \boxed{1} ! \begin{bmatrix} \text{FORM} & \left\langle F_{B}(2, 3) \right\rangle \end{bmatrix} \\ \text{DTRS} & \left\langle \boxed{1} \begin{bmatrix} infl\text{-}lxm \\ \text{FORM} & \left\langle 2 \right\rangle \\ \text{CAT} & \begin{bmatrix} \text{AGR-B} & \boxed{3} \end{bmatrix} \right\rangle \end{bmatrix}$$

$$sound\text{-}siminflectional\text{-}cxt} \Rightarrow \begin{bmatrix} \text{DTRS} & \left\langle \begin{bmatrix} \text{CAT} & \begin{bmatrix} \text{SET-A} & \neq \end{bmatrix} \end{bmatrix} \right\rangle \end{bmatrix}$$

$$defective-siminflectional-cxt \Rightarrow \left[DTRS \left\langle \begin{bmatrix} verb \\ SET-A \not + \end{bmatrix} \right] \right\rangle$$

$$nullinflectional\text{-}cxt \Rightarrow \left[\text{DTRS} \left[invariant\text{-}lxm \right] \right)$$

$$dequeue-distal-cxt \Rightarrow \begin{bmatrix} MTR & 1 ! \begin{bmatrix} FORM & \left\langle F_{distal}(2, 3) \right\rangle \\ DEQ-D & 3 \end{bmatrix} \\ DTRS & \left\langle 1 \begin{bmatrix} FORM & \left\langle 2 \right\rangle \\ DEQ-D & none \end{bmatrix} \right\rangle$$

A.6 Example Listemes

$$\begin{bmatrix} det-lxm & & & \\ FORM & \left\langle le \right\rangle & & & \\ SELECT & \begin{bmatrix} PRED & - \\ MRKG & le \\ END-Q & speech-sit \end{bmatrix} \end{bmatrix} \begin{bmatrix} pron-lxm \\ SYN & \begin{bmatrix} CAT & \begin{bmatrix} AGR-B & 3sg \end{bmatrix} \\ ENQ-D & a' \\ DEQ-D & a' \end{bmatrix} \end{bmatrix}$$

$$\begin{bmatrix} al-noun-lxm \\ FORM & \left\langle bu'ul \right\rangle \end{bmatrix} \begin{bmatrix} pron-lxm \\ FORM & \left\langle tèech \right\rangle \\ SYN & \begin{bmatrix} CAT & \begin{bmatrix} AGR-B & 2sg \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

$$\begin{bmatrix} amm-lxm \\ FORM & \left\langle ts'o'ok \right\rangle \\ ARG-ST & \left\langle \begin{bmatrix} STATUS & inc \end{bmatrix} \right\rangle \end{bmatrix}$$

$$\begin{bmatrix} strict-tv-lxm \\ FORM & \left\langle jats' \right\rangle \end{bmatrix}$$

$$\begin{bmatrix} a-lxm & \\ FORM & \left\langle in \right\rangle \\ SYN & \left[AGR-A & Isg \right] \end{bmatrix}$$

$$\begin{bmatrix} adjective-lxm \\ FORM & \left\langle uts \right\rangle \end{bmatrix}$$

$$\begin{bmatrix} cmv-lxm \\ FORM & \langle taal \rangle \end{bmatrix}$$

$$\begin{bmatrix} amm\text{-}lxm & sbj\text{-}c\text{-}lxm \\ \text{FORM} & \left\langle \text{mukaj} \right\rangle \\ \text{SYN} & \left[\text{CAT} & \left[\text{AGR-B} & \mathbb{I} \right] \right] \\ \text{ARG-ST} & \left\langle \left[\text{AGR-A} & \mathbb{I} \right] \right\rangle \end{bmatrix}$$

A.7 Abbreviations

$$S = \begin{bmatrix} & \begin{bmatrix} & & \begin{bmatrix} & & & \\ & & \\ & & & \\ & & \\ & & & \\ &$$

$$NP = \begin{bmatrix} SYN & \begin{bmatrix} noun & \\ CAT & \begin{bmatrix} noun & \\ PRED & - \\ SET-A & + \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

$$X^a = \begin{bmatrix} ROLE & agent \end{bmatrix}$$

$$X^{o} = \begin{bmatrix} ROLE & other \end{bmatrix}$$

$$VP = \begin{bmatrix} SYN & \begin{bmatrix} CAT & \begin{bmatrix} verb & \\ SET-A & + \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

$$VAL \quad \langle \rangle$$