

## FROM MANDARIN TEXTS TO UPDATE WITH CENTERING

**Glosses in Mandarin texts**Noun markers

CL classifier (count noun)  
 M measure word (mass noun or action verb)

Noun phrase markers

PAT patient (*bǎ*)  
 AGT agent (*béi*)

Pronouns

1SG I, me, my  
 2SG you (sg.), your (sg.)  
 3SG he, she, it, him, her, his, her  
  
 1PL we, us, our  
 2PL you (pl.), your (pl.)  
 3PL they, them, their

Aspectual typing (a.k.a. Aktionsart)

\E<sup>1</sup> 1-atom event (a.k.a. ‘resultative action verb’)  
 \E *n*-atom event (a.k.a. ‘other action verb’)  
 \S<sup>1</sup> 1-degree state (a.k.a. ‘quality verb’)  
 \S *n*-degree state (a.k.a. ‘other stative verb’)

Aspect markers

DUR durative aspect (v-inflection *-zhe*)  
 PNC punctual aspect (v-inflection or s-final partical *(-)le*, a.k.a. ‘perfective’)  
 TRM terminative aspect (v-inflection *-guo*, a.k.a. ‘experiential’)

Prospective modals

DES<sup>></sup> state of desire/intent or pre-state (*yào*)  
 EXP<sup>></sup> state of expectation (*huì*)  
 CAN<sup>></sup> state of being able/allowed/... (*nèng*)  
 :

Negation

NOT (unmarked) negation (*bù*)  
 <NOT retrospective negation (*méi*)

Sentence final particles

OPT optative (*ba*)  
 YN yes-no question (*ma*)  
 SFP other sentence final particle (*de, ne*)

Other boundary markers

H head-modifier, modifier-head (*de* in [head H modifier] or [modifier H head])  
 AV adverbial (*de* in [phrase AV])  
 DIS distributive (*dōu* v)  
 POS positive degree of gradable adjectival state (*hěn* v\S)

[0] MINI-DISCOURSES

(1) I will go to bed right after I finish writing three letters.

Wǒ xiě-wán-le yi-fēng xìn, jiù qù shuì.jiào.

1SG write-finish $\backslash E^1_{\top}$ -PNC $\top$  one-CL letter, then $\top$  go $\backslash E^1_{\top}$  sleep $\backslash E_{\perp}$

$\top[x|x = \uparrow \top \varepsilon]$ ;  $[e|write\langle \blacktriangleleft e \sqcup e, \top \delta, \downarrow e \rangle, \vartheta e < \vartheta \blacktriangleright \top \varepsilon]$ ;  $[x|x = \downarrow \perp \varepsilon, x \sqsubseteq \sqcup letter]$ ;

$\top[s|\blacktriangleright \perp \varepsilon =_i \blacktriangleright s, s \sqsubseteq_i \triangleright \top \varepsilon]$ ;  $[e|go\langle e, \top \delta \rangle, e =_i \blacktriangleright \top \sigma]$ ;  $[e|sleep\langle e, \uparrow e \rangle, \nabla e =_i \triangleright \perp \varepsilon]$

<u>Eventuality</u>	<u>Symbol: Description</u>	<u>Temporal relations</u>	<u>Source</u>
•	$\top e_0$ : $\uparrow e_0$ speaks up		$C_0$
•	$e_1$ : $\uparrow e_0$ finishes writing 3 ltrs	$\vartheta e_1 <_{\tau} \vartheta \blacktriangleright e_0$	PNC $\top$
•	$e_2$ : $\uparrow e_0$ goes somewhere	$e_2 = \blacktriangleright e_1$	then $\top$ $v_{\top}$
•••	$e_3$ : $\uparrow e_0$ sleeps	$\nabla e_3 = \triangleright e_2$	$v_{\perp}$

(2) Lisi fell asleep listening to the radio.

Lǐsī tīng-zhe shōuyīnjī shuì.zháo-le.

Lisi listen $\backslash E$ -DUR radio fall.asleep $\backslash E^1_{\perp}$ -PNC $\top$

$\top[x|name\ x = lisi]$ ;  $[e\ x|listen.to\langle e, \top \delta, x \rangle, radio\langle x \rangle]$ ;  $\top[s|s = \nabla \perp \varepsilon]$ ;

$[e|asleep\langle \triangleright e, \top \delta \rangle, e =_i \blacktriangleleft \top \sigma]$ ;  $[\vartheta \perp \varepsilon <_i \vartheta \top \varepsilon]$

<u>Eventuality</u>	<u>Symbol: Description</u>	<u>Temporal relations</u>	<u>Source</u>
•	$\top e_0$ : $\uparrow e_0$ speaks up		$C_0$
••••	$e_1$ : Lisi listens to radio		
—	$s_2$ : Lisi is listening to radio	$s_2 = \nabla e_1 = \blacktriangleleft e_3$	DUR
•	$e_3$ : Lisi falls asleep	$e_3 = \Delta \nabla e_3, e_3 <_{w0} e_0$	PNC

[C:1] COMPUTER MOUSE  
(MB fw)

Q: Where can I buy a computer mouse?

(1) I have a mouse that I brought over from Germany.

*Wo you yi-ge cong Xide dai.lai de 'mouse'*

1SG have\\$\_\top one-CL from Germany bring\\$\_E^1 H mouse

$\top[x|x=i \uparrow \top \varepsilon]$ ;  $\top[s|\uparrow s=i \top \delta, \downarrow s \neq i \uparrow s, \vartheta \top \varepsilon \sqsubseteq_i \vartheta s]$ ;  $[x|x=i \textit{germany}]$ ;  
 $[e|\textit{bring}\langle e, \top \delta, \downarrow e \rangle, \textit{from}\langle e, \perp \delta \rangle, e=i \blacktriangleright \top \sigma]$ ;  $[x|x=i \downarrow \perp \varepsilon, \textit{mouse}\langle x \rangle]$ ;  
 $[\perp \delta =_i \mathbf{max}\{\perp \delta|_{\top \varepsilon}\}]$ ;  $[1\langle^A \perp \delta \rangle]$ ;  $[\perp \delta =_i \downarrow \top \sigma]$

(2) When I was in Germany I sold my computer, but I didn't hand over the mouse.  
Eventually I brought it over to the U.S.A.

*Zai Xide de shihou ba jisuanji mai.diao-le,*

be.in\\$\_\perp Germany H time PAT computer sell\\$\_E^1-PNC

$\top[s|\textit{be.in}\langle s, \top \delta, \downarrow s \rangle, s \sqsubseteq_i \nabla \blacktriangleleft \perp \varepsilon]$ ;  $[x|x=i \downarrow \top \sigma, x=i \textit{germany}]$ ;  $[\top \sigma = \mathbf{max}\{\top \sigma|_{\perp \varepsilon}\}]$ ;  
 $;\top[t|t=i \vartheta \top \sigma]$ ;  $[x|\textit{computer.of}\langle x, \top \delta, \top \tau \rangle]$ ;  $[\perp \delta =_i \mathbf{max}\{\perp \delta|_{\top \tau}\}]$ ;  $[e|\textit{sell}\langle e, \top \delta, \perp \delta \rangle]$ ;  
 $[\perp \varepsilon = \blacktriangleleft \top \sigma, \vartheta \perp \varepsilon < \vartheta \top \varepsilon]$

*mai.diao yihou zhei-ge 'mouse' meiyou gei renjia,*

sell\\$\_E^1 after this-CL mouse NOT\\$\_\top give 3RD

$[\textit{sell}\langle \perp \varepsilon, \top \delta, \perp \delta \rangle, \perp \varepsilon \sqsubseteq_i \blacktriangleleft \top \sigma]$ ;  $[s|s \sqsubseteq_i \triangleright \perp \varepsilon, s \sqsubseteq_i \top \sigma]$ ;  $[x|x=i (\top \triangleright \delta \textit{mouse})]$ ;  
 $[\perp \sigma =_i \mathbf{max}\{\perp \sigma|_{\perp \varepsilon, \top \sigma}\}]$ ;  $[\sim[e|\textit{give.to}\langle e, \top \delta, \perp \delta, \mathbf{dat} \perp \varepsilon \rangle, \vartheta e \sqsubseteq \vartheta \perp \sigma]]$ ;

*jieguo na.dao Meiguo.*

result take.to U.S.A.

$[s|s \sqsubseteq_i \triangleright \blacktriangleleft \perp \sigma, s \sqsubseteq_i \top \sigma]$ ;  $[e|x|\textit{take.to}\langle e, \top \delta, \perp \delta, x \rangle, x = \textit{usa}, e = \blacktriangleleft \top \sigma]$

(3) Here when one buys a computer it always has a mouse.

*Zheli mai jisuanji dou you 'mouse'.*

here buy\\$\_E computer DIS have\\$\_S mouse

$\top[s|\textit{loc} \top \varepsilon \sqsubseteq \textit{loc} s \sqsubseteq \perp \delta, \vartheta \top \varepsilon \sqsubseteq \vartheta s]$ ;  $[e|\textit{buy}\langle e, \uparrow e, \downarrow e \rangle, \vartheta e \sqsubseteq \vartheta \top \sigma]$ ;  
 $\top[x|x = \downarrow \perp \varepsilon, \textit{computer}\langle x \rangle]$ ;  $\top[X|X = \perp \delta|_{\top \sigma}]$ ;  $[s|\uparrow s = \top \delta, \downarrow s \neq \uparrow s, \vartheta \perp \varepsilon \sqsubseteq \vartheta s]$ ;  
 $[x|x = \downarrow \perp \sigma, \textit{mouse}\langle x \rangle]$ ;  $[\top \delta \dot{=} \top \delta|_{\top \sigma}]$

(4) So I have no use this mouse. You may use it.

*Suoyi zhei-ge 'mouse' yong(bu)zhao,*

so this-CL mouse use\langle can't\\$\_S^1 \rangle succeed

$\top[s|\textit{because}\langle s, \top \sigma \rangle, \vartheta \top \varepsilon \sqsubseteq \vartheta s]$ ;  $\top[x|\textit{mouse}\langle x \rangle, x \in \perp \triangleright \delta]$ ;  
 $[s|\textit{unable.to.use}\langle s, \uparrow \top \varepsilon, \top \delta \rangle, s \sqsubseteq \top \sigma]$ ;

*ni keyi yong.*

2SG MAY use

$[\textit{permitted.to.use}\langle \triangleright \top \varepsilon, \downarrow \top \varepsilon, \top \delta \rangle]$ ;  $\top[s|s = \triangleright \top \varepsilon]$

[1] THE LOST SWORD (analysis 1)

- (1) In Chu (722-221 b.c.), a man was crossing the river Jiang by boat.

*Chǔ-guó yǒu gè rén ...*  
 Chu-land have\S CL man ...  
 $[x|x =_i \text{chu.land}]$ ;  $^\top[s| \text{in}\langle s, \uparrow s, \perp \delta \rangle]$ ;  $^\top[x|x =_i \uparrow \top \sigma, \text{man}\langle x \rangle]$ ;  $^\top; \dots$   
*... chéng chuán dù Jiāng.*  
 ... go.by\E $\top$  boat cross\E $\perp$  Jiang  
 $[e| \text{travel.by}\langle e, \top \delta, \downarrow e \rangle, \nabla e =_i \top \sigma]$ ;  $[x|x =_i \downarrow \perp \varepsilon, \text{boat}\langle x \rangle]$ ;  $[e| \text{cross}\langle e, \uparrow e, \downarrow e \rangle, \blacktriangleleft e =_i \perp \varepsilon]$ ;  $[x|x =_i \downarrow \perp \varepsilon, x =_i \text{jiang.river}]$

- (2) His sword fell out of the boat into the river.

*Jiàn ...*  
 sword ...  
 $^\top[x| \text{sword.on}\langle x, \top \delta, \vartheta \top \sigma \rangle]$ ;  $^\top[s| \uparrow s =_i \top \delta, \blacktriangleright s \sqsubseteq_i \blacktriangleleft \perp \varepsilon]$   $^\top; \dots$   
*... cóng chuán-shàng diào.jìn shuǐ-lǐ le.*  
 ... from boat-loc fall.in\E $^1$  river-in PNC  
 $[x| \text{boat}\langle x \rangle, x \in_i \perp \Rightarrow \delta]$ ;  $[e| \text{fall}\langle e, \top \delta \rangle, \pi^\blacktriangleleft e \sqsubseteq_i \text{in} \perp \delta, \vartheta e \sqsubseteq_i \vartheta^\blacktriangleleft \perp \varepsilon]$ ;  $[x| \text{river}\langle x \rangle, x \in_i \perp \Rightarrow \delta, \pi^\blacktriangleright \perp \varepsilon \sqsubseteq_i \text{in} x]$ ;  $[\perp \varepsilon =_i \blacktriangleleft \top \sigma]$

—  $^\top s_1$ : man  $x_2$  is in Chuland (722-221 b.c.)  $x_1$   
 ●●●●●●  $e_1$ :  $s_1 \sqsubseteq \nabla e_1$ , man  $x_2$  travels by boat  $x_3$   
 ( ●  $\blacktriangleleft e_1$ : man  $x_2$  gets across river Jiang  $x_4$  )  
 ●  $e_2$ :  $\vartheta e_2 = \vartheta^\blacktriangleleft s_1$ ,  $x_2$ 's sword  $x_5$  falls fr. boat  $x_3$  into rv.  $x_4$

- (3) The man hastily drew a mark down the side of the boat.

*Zhè-ge rén biàn ...*  
 this-CL man then ...  
 $^\top[x| \text{man}\langle x \rangle, x \in \top \Rightarrow \delta]$ ;  $^\top[s| s \sqsubseteq \triangleright^\blacktriangleleft \perp \sigma]$ ;  $\dots$   
*... jí máng zài chuán-biān kè.xià yi-ge jìhao.*  
 ... hurry\E on boat-side carve.down\E $^1$  one-CL mark  
 $[\text{in.haste}\langle \top \sigma, \top \delta \rangle]$ ;  $[x| \text{boat}\langle x \rangle, x \in \perp \Rightarrow \delta]$ ;  $[x| \text{side.of}\langle x, \perp \delta \rangle]$ ;  $[e| \text{carve}\langle e, \top \delta, \downarrow e \rangle, e = \blacktriangleleft \top \sigma]$ ;  $[\text{on}\langle \triangleright \perp \varepsilon, \downarrow \perp \varepsilon, \perp \delta \rangle]$ ;  $[x|x = \downarrow \perp \varepsilon, \text{mark}\langle x \rangle]$ ;

—  $^{(\top)} s_1$ : man  $x_2$  is in Chu  $x_1$  using boat  $x_3$  to cross rv. J.  $x_4$   
 : :  
 ●  $e_2$ :  $\vartheta e_2 = \vartheta^\blacktriangleleft s_1$ ,  $x_2$ 's sword  $x_5$  falls fr. boat  $x_3$  into rv.  $x_4$   
 —  $^\top s_3$ :  $s_3 \sqsubseteq \triangleright^\blacktriangleleft s_1$ , man  $x_2$  in haste  
 ●  $e_3$ :  $e_3 = \blacktriangleleft s_3$ , man  $x_2$  draws mark  $x_7$  on  $x_3$ -bow  $x_6$

(4) And then he calmly sat waiting for the boat to land.

*Ránhòu jiù ...*  
 afterward then ...  
 $\top[t \sqsubseteq \vartheta^{\triangleright} \perp \varepsilon]$ ;  $\top[s | \vartheta s = \top \tau]$ ; ...  
 ... *yōuxián-de děng-zhe chuán kào'àn.*  
 ... at.leisure-ADV wait\E-DUR boat land\E  
 ...  $[at.leisure \langle \top \sigma, \top \delta \rangle]$ ;  $[e | wait \langle e, \top \delta \rangle]$ ;  $[\top \sigma = \nabla \perp \varepsilon]^\top$ ;  $[x | boat \langle x \rangle, x \in \perp^\triangleright \delta]$ ;  
 $[e | land \langle e, \perp \delta \rangle, \vartheta e = \vartheta^{\blacktriangleleft} \top \sigma]$   
 —  $(\top)_{s_1}$ : man  $x_2$  is in Chu  $x_1$  using boat  $x_3$  to cross rv. J.  $x_4$   
 ∴ ∴  
 ●  $e_3$ :  $e_3 = \blacktriangleleft s_3$ , man  $x_2$  draws mark  $x_7$  on  $x_3$ -bow  $x_6$   
 ■■■  $\top t_4$ :  $t_4 \sqsubseteq \vartheta^{\blacktriangleleft} \blacktriangleleft s_3$ , after  $\blacktriangleleft s_3$   
 —  $\top s_4$ :  $\vartheta s_4 = t_4$ , man  $x_2$  at leisure  
 ○○○  $e_4$ :  $\nabla e_4 = s_4$ , man  $x_2$  waiting for  $e'_4$   
 ●  $e'_4$ :  $\vartheta e'_4 = \vartheta^{\blacktriangleleft} s_4$ , boat  $x_3$  lands

(5) When the boat stopped at the landing,

*Chuán kào'àn tíngxiàláí yǐhòu,*  
 boat land\E stop\E<sup>1</sup> after  
 $[x | boat \langle x \rangle, x \in \perp^\triangleright \delta]$ ;  $[e | land \langle e, \perp \delta \rangle, \vartheta e = \vartheta^{\blacktriangleleft} \top \sigma]$ ;  $[stop \langle \perp \varepsilon, x \rangle]$ ;  $\top[t \sqsubseteq \vartheta^{\triangleright} \perp \varepsilon]$ ;

he jumped from the place he had marked into the river in search of the sword.

*tā jiù cóng kè jìhao de dìfang tiào.jìn shuǐ-lǐ qù zhǎo jiàn,*  
 3SG then from [carve\E mark H place] jump.in\E<sup>1</sup> river-in go\E<sup>1</sup> seek\E sword  
 $\top[x | x = \top \delta]$ ;  $\top[s | \vartheta s = \top \tau]$ ;  $[e | carve \langle e, \top \delta, x \rangle, e \in \perp^\triangleright \varepsilon, mark \langle x \rangle, x \in \perp^\triangleright \delta]$ ;  
 $[x | loc.of \langle x, \perp \delta \rangle]$ ;  $[e | jump.into \langle e, \top \delta, \downarrow e \rangle, e = \blacktriangleright \top \sigma]$ ;  $[at \langle \blacktriangleleft \perp \varepsilon, \top \delta, \perp \delta \rangle]$ ;  
 $[x | x = \downarrow \perp \varepsilon, river \langle x \rangle, x \in \perp^\triangleright \delta, in \langle \blacktriangleright \perp \varepsilon, \top \delta, x \rangle]$ ;  $[e | seek \langle e, \top \delta, \downarrow e \rangle, \nabla e = \blacktriangleright \perp \varepsilon]$ ;  
 $[x | x = \downarrow \perp \varepsilon, sword \langle x \rangle, x \in \top^\triangleright \delta]$

But he never found his sword again.

*kěshì zàiyě méiyǒu zhǎodào jiàn.*  
 but any.more <NOT find\E<sup>1</sup> sword  
 $[s | s = \nabla \perp \varepsilon, \vartheta s < \vartheta \top \varepsilon, \sim[e | find \langle e, \top \delta, \perp \delta \rangle, \vartheta e \sqsubseteq \vartheta \perp \sigma]]$ ;  $[sword \langle \perp \delta \rangle, \perp \delta \in \top^\triangleright \delta]$

—  $(\top)_{s_1}$ : man  $x_2$  is in Chuland (722-221 b.c.)  $x_1$   
 ∴ ∴  
 ●  $e_3$ :  $e_3 = \blacktriangleleft s_3$ , man  $x_2$  draws mark  $x_7$  on  $x_3$ -bow  $x_6$   
 ∴ ∴  
 —  $\top s_4$ :  $\vartheta s_4 = t_4$ , man  $x_2$  at leisure  
 ○○○  $e_4$ :  $\nabla e_4 = s_4$ , man  $x_2$  waiting for  $e'_4$   
 ●  $e'_4$ :  $\vartheta e'_4 = \vartheta^{\blacktriangleleft} s_4$ , boat  $x_3$  lands  
 ●  $e_5$ :  $\vartheta e_5 \sqsubseteq \vartheta^{\blacktriangleleft} s_4$ , boat  $x_3$  lands & stops  
 ■■  $\top t_5$ :  $t_5 \sqsubseteq \vartheta^{\blacktriangleright} e_5$ , after  $e_5$ -stop  
 —  $\top s_5$ :  $\vartheta s_5 = t_5$ , man  $x_2$  dur.  $t_5$  (after  $e_5$ -stop)  
 ●  $e'_5$ :  $e'_5 = \blacktriangleright s_5$ , man  $x_2$  jumps fr mark  $x_7$  into river  $x_4$   
 ○○○  $e''_5$ :  $\nabla e''_5 = \blacktriangleright e'_5$ , man  $x_2$  seeks sword  $x_5$ , doesn't find it

[1] THE LOST SWORD

- (1) In Chu (722-221 b.c.), a man was crossing the river Jiang by boat.

*Chǔ-guó yǒu gè rén ...*  
 Chu-land have\S CL man ...  
 $[x|x =_i \text{chu.land}]$ ;  $^\top[s| \text{in}\langle s, \uparrow s, \perp \delta \rangle]$ ;  $^\top[x|x =_i \uparrow \top \sigma, \text{man}\langle x \rangle]$ ;  $[1\{\top \delta|_{\top \sigma}\}^\top]$ ; ...  
*... chéng chuán dù Jiāng.*  
 ... go.by\|E<sub>+</sub> boat cross\E<sub>+</sub> Jiang  
 $[e| \text{travel.by}\langle e, \top \delta, \downarrow e \rangle]$ ,  $^\nabla e =_i \top \sigma$ ;  $[x|x =_i \downarrow \perp \varepsilon, \text{boat}\langle x \rangle]$ ;  $[e| \text{cross}\langle e, \uparrow e, \downarrow e \rangle]$ ,  
 $^\blacktriangleleft e =_i \perp \varepsilon$ ;  $[x|x =_i \downarrow \perp \varepsilon, x =_i \text{jiang.river}]$

- (2) His sword fell out of the boat into the river.

*Jiàn ...*  
 sword ...  
 $^\top[x| \text{sword.on}\langle x, \top \delta, \vartheta \top \sigma \rangle]$ ;  $[\top \delta =_i \text{max}\{\top \delta|_{\top \sigma}\}]$ ;  $^\top[s| \uparrow s =_i \top \delta, \blacktriangleright s \sqsubseteq_i \blacktriangleleft \perp \varepsilon]^\top$ ; ...  
*... cóng chuán-shàng diào.jìn shuǐ-lǐ le.*  
 ... from boat-loc fall.in\|E<sup>1</sup> river-in PNC  
 $[x| \text{boat}\langle x \rangle, x \in_i \perp \Rightarrow \delta]$ ;  $[e| \text{fall}\langle e, \top \delta \rangle]$ ,  $^\pi e \sqsubseteq_i \text{in } \perp \delta$ ,  $\vartheta e \sqsubseteq_i \vartheta \blacktriangleleft \perp \varepsilon$ ;  $[x| \text{river}\langle x \rangle]$ ,  
 $x \in_i \perp \Rightarrow \delta$ ,  $^\blacktriangleright \perp \varepsilon \sqsubseteq_i \text{in } x$ ;  $[\perp \varepsilon =_i \blacktriangleleft \top \sigma]$

—  $^\top s_1$ : man  $x_2$  is in Chuland (722-221 b.c.)  $x_1$   
 ●●●●●●  $e_1$ :  $s_1 \sqsubseteq \nabla e_1$ , man  $x_2$  travels by boat  $x_3$   
 ( ●  $^\blacktriangleleft e_1$ : man  $x_2$  gets across river Jiang  $x_4$  )  
 ●  $e_2$ :  $\vartheta e_2 = \vartheta \blacktriangleleft s_1$ ,  $x_2$ 's sword  $x_5$  falls fr. boat  $x_3$  into rv.  $x_4$

- (3) The man hastily drew a mark down the side of the boat.

*Zhè-ge rén biàn ...*  
 this-CL man then ...  
 $^\top[x| \text{man}\langle x \rangle, x \in \top \Rightarrow \delta]$ ;  $[1\{\top \delta|\}]$ ;  $^\top[s| s \sqsubseteq \blacktriangleright \blacktriangleleft \perp \sigma]$ ; ...  
*... jí máng zài chuán-biān kè.xià yí-ge jìhào.*  
 ... hurry\|E on boat-side carve.down\|E<sup>1</sup> one-CL mark  
 $[in.haste\langle \top \sigma, \top \delta \rangle]$ ;  $[x| \text{boat}\langle x \rangle, x \in \perp \Rightarrow \delta]$ ;  $[x| \text{side.of}\langle x, \perp \delta \rangle]$ ;  $[e| \text{carve}\langle e, \top \delta, \downarrow e \rangle]$ ,  
 $e = \blacktriangleleft \top \sigma$ ;  $[on\langle \blacktriangleright \perp \varepsilon, \downarrow \perp \varepsilon, \perp \delta \rangle]$ ;  $[x|x = \downarrow \perp \varepsilon, \text{mark}\langle x \rangle]$ ;  $[1\{\perp \delta|_{\perp \varepsilon}\}]$

—  $(^\top) s_1$ : man  $x_2$  is in Chu  $x_1$  using boat  $x_3$  to cross rv. J.  $x_4$   
 : :  
 ●  $e_2$ :  $\vartheta e_2 = \vartheta \blacktriangleleft s_1$ ,  $x_2$ 's sword  $x_5$  falls fr. boat  $x_3$  into rv.  $x_4$   
 —  $^\top s_3$ :  $s_3 \sqsubseteq \blacktriangleright \blacktriangleleft s_1$ , man  $x_2$  in haste  
 ●  $e_3$ :  $e_3 = \blacktriangleleft s_3$ , man  $x_2$  draws mark  $x_7$  on  $x_3$ -bow  $x_6$

(4) And then he calmly sat waiting for the boat to land.

*Ránhòu jiù ...*  
 afterward then ...  
 $\top[t \ t \sqsubseteq \vartheta^{\triangleright} \perp \varepsilon]$ ;  $\top[s \ \vartheta s = \top \tau]$ ; ...  
 ... *yōuxián-de dǐng-zhe chuán kào'àn.*  
 ... at.leisure-ADV wait\E-DUR boat land\E  
 ...  $[at.leisure \langle \top \sigma, \top \delta \rangle]$ ;  $[e \ | \ wait \langle e, \top \delta \rangle]$ ;  $[\top \sigma = \nabla \perp \varepsilon]$   
 $\top$ ;  $[x \ | \ boat \langle x \rangle, x \in \perp^{\triangleright} \delta]$ ;  $[e \ | \ land \langle e, \perp \delta \rangle, \vartheta e = \vartheta^{\blacktriangleleft} \top \sigma]$   
 —  $(\top)_{s_1}$ : man  $x_2$  is in Chu  $x_1$  using boat  $x_3$  to cross rv. J.  $x_4$   
 ∴ ∴  
 ●  $e_3$ :  $e_3 = \blacktriangleleft s_3$ , man  $x_2$  draws mark  $x_7$  on  $x_3$ -bow  $x_6$   
 ■■■  $\top t_4$ :  $t_4 \sqsubseteq \vartheta^{\blacktriangleleft} \blacktriangleleft s_3$ , after  $\blacktriangleleft s_3$   
 —  $\top s_4$ :  $\vartheta s_4 = t_4$ , man  $x_2$  at leisure  
 ○○○  $e_4$ :  $\nabla e_4 = s_4$ , man  $x_2$  waiting for  $e'_4$   
 ●  $e'_4$ :  $\vartheta e'_4 = \vartheta^{\blacktriangleleft} s_4$ , boat  $x_3$  lands

(5) When the boat stopped at the landing,

*Chuán kào'àn tíngxiàláí yǐhòu,*  
 boat land\E stop\E<sup>1</sup> after  
 $[x \ | \ boat \langle x \rangle, x \in \perp \delta]$ ;  $[\top \delta = \top \max \{ \top \delta \}]$ ;  $[e \ | \ land \langle e, \perp \delta \rangle, \vartheta e = \vartheta^{\blacktriangleleft} \top \sigma]$ ;  
 $[stop \langle \perp \varepsilon, x \rangle]$ ;  $\top[t \ t \sqsubseteq \vartheta^{\triangleright} \perp \varepsilon]$ ;  
 he jumped from the place he had marked into the river in search of the sword.  
*tā jiù cóng kè jìhao de dìfang tiào.jìn shuǐ-lǐ qù zhǎo jiàn,*  
 3SG then from [carve\E mark H place] jump.in\E<sup>1</sup> river-in go\E<sup>1</sup> seek\E sword  
 $\top[x \ | \ x = \top \delta]$ ;  $\top[s \ \vartheta s = \top \tau]$ ;  $[e \ | \ carve \langle e, \top \delta, x \rangle, e \in \perp^{\triangleright} \varepsilon, mark \langle x \rangle, x \in \perp^{\triangleright} \delta]$ ;  
 $[x \ | \ loc.of \langle x, \perp \delta \rangle]$ ;  $[e \ | \ jump.into \langle e, \top \delta, \downarrow e \rangle, e = \blacktriangleright \top \sigma]$ ;  $[at \langle \blacktriangleleft \perp \varepsilon, \top \delta, \perp \delta \rangle]$ ;  
 $[x \ | \ x = \downarrow \perp \varepsilon, river \langle x \rangle, x \in \perp \delta^{\triangleright}, in \langle \blacktriangleright \perp \varepsilon, \top \delta, x \rangle]$ ;  $[e \ | \ seek \langle e, \top \delta, \downarrow e \rangle, \nabla e = \blacktriangleright \perp \varepsilon]$ ;  
 $[x \ | \ x = \downarrow \perp \varepsilon, sword \langle x \rangle, x \in \top^{\triangleright} \delta]$   
 But he never found his sword again.  
*kěshì zàiyě méiyǒu zhǎodào jiàn.*  
 but any.more <NOT find\E<sup>1</sup> sword  
 $[\blacktriangleleft \blacktriangleright \langle \perp \varepsilon \rangle]$ ;  $[\perp \varepsilon = \max \{ \perp \varepsilon \}_{\top \sigma}]$ ;  $[s \ | \ s = \nabla \perp \varepsilon, \vartheta s < \vartheta \top \varepsilon, \text{not } [e \ | \ find \langle e, \top \delta, \perp \delta \rangle, \vartheta e \sqsubseteq \vartheta \perp \sigma]]$ ;  $[sword \langle \perp \delta \rangle, \perp \delta \in \top^{\triangleright} \delta]$   
 —  $(\top)_{s_1}$ : man  $x_2$  is in Chuland (722-221 b.c.)  $x_1$   
 ∴ ∴  
 ●  $e_3$ :  $e_3 = \blacktriangleleft s_3$ , man  $x_2$  draws mark  $x_7$  on  $x_3$ -bow  $x_6$   
 ∴ ∴  
 —  $\top s_4$ :  $\vartheta s_4 = t_4$ , man  $x_2$  at leisure  
 ○○○  $e_4$ :  $\nabla e_4 = s_4$ , man  $x_2$  waiting for  $e'_4$   
 ●  $e'_4$ :  $\vartheta e'_4 = \vartheta^{\blacktriangleleft} s_4$ , boat  $x_3$  lands  
 ●  $e_5$ :  $\vartheta e_5 \sqsubseteq \vartheta^{\blacktriangleleft} s_4$ , boat  $x_3$  lands & stops  
 ■■■  $\top t_5$ :  $t_5 \sqsubseteq \vartheta^{\blacktriangleright} e_5$ , after  $e_5$ -stop  
 —  $\top s_5$ :  $\vartheta s_5 = t_5$ , man  $x_2$  dur.  $t_5$  (after  $e_5$ -stop)  
 ●  $e'_5$ :  $e'_5 = \blacktriangleright s_5$ , man  $x_2$  jumps fr mark  $x_7$  into river  $x_4$   
 ○○○  $e''_5$ :  $\nabla e''_5 = \blacktriangleright e'_5$ , man  $x_2$  seeks sword  $x_5$ , doesn't find it

[2] THE PEASANT AND THE HARE

- (1) A peasant in Song (960–1279) was plowing his field.

*Sòng-guó yǒu ge nóngmín zhèng zài gēng tián.*  
 Song-land have\S<sup>†</sup> CL peasant just be.at\S<sup>1</sup><sub>T</sub> plow\E field  
 [x| name x = song.land, x ∈ ⊥<sup>⇒</sup>δ]; <sup>†</sup>[s x| in⟨s, x, ⊥δ⟩, peasant⟨x⟩]; [1{⊥δ|<sub>Tσ</sub>}];  
 [s| ⊥σ ⊆ s]; [e| plow⟨e, ⊥δ⟩, <sup>∇</sup>⊥ε = ⊥σ]; [x| x = ↓⊥ε, field.of⟨x, ↑⊥ε⟩]

————— <sup>†</sup>s<sub>1</sub>: peasant x<sub>2</sub> in Song (960–1279) x<sub>1</sub> at e<sub>1</sub>-plowing  
 ————— s′<sub>1</sub>: s<sub>1</sub> ⊆ s′<sub>1</sub>  
 ○○○○○○ e<sub>1</sub>: <sup>∇</sup>e<sub>1</sub> = s′<sub>1</sub>, peasant x<sub>2</sub> plows his field

- (2) Next to the field, there was a big tree stump. A hare darting past it accidentally bumped into it and fell dead with its neck broken.

*Tián-biān yǒu kē dà shù-zhuāng,*  
 field-side have\S<sup>†</sup> CL big tree-stump  
 [field.of⟨⊥δ, ⊥δ⟩]; [x| beside⟨x, ⊥δ⟩]; <sup>†</sup>[s| hv⟨s, ⊥δ, ↓s⟩, ∅<sup>†</sup>σ = ∅s]; [x| x = ↓⊥σ,  
 big.tree.stump⟨x⟩]; [1{⊥δ|<sub>Tσ</sub>}];

*yī-zhī tùzi fēibēn guòlái,*  
 one-CL hare dart\E<sub>T</sub> pass.by\E<sup>1</sup>  
<sup>†</sup>[x| hare⟨x⟩]; [e| dart⟨e, ⊥δ⟩, ∅e ⊆ ∅<sup>†</sup>σ]; [w| pass<sub>w</sub>⟨<sup>▲</sup>⊥ε, ⊥δ, ⊥δ⟩];  
 [opt⟨intend<sup>∇</sup>⊥ε⟩ ⊆ ⊥ω]; [1{⊥δ|<sub>Tσ</sub>}];

*bù xiǎoxīn zhuàng-zài shù-zhuāng-shàng,*  
 NOT careful\S bump-at\E<sup>1</sup> tree-stump-loc,  
 [s| careless⟨s, ⊥δ⟩, s ⊆ <sup>∇</sup>⊥ε]; [e| bump.into⟨e, ⊥δ, ⊥δ⟩, e = <sup>▲</sup>⊥σ];  
 [tree.stump⟨⊥δ⟩];

*zhé.duàn bózi sǐ le.*  
 break\E<sup>1</sup> neck die\E<sup>1</sup> PNC  
 [e| break.neck⟨e, ⊥δ⟩, e = <sup>▲▷</sup>⊥ε]; [die⟨⊥ε, ⊥δ⟩, ⊥ε = <sup>▲</sup>⊥σ]

————— (†)s<sub>1</sub>: peasant x<sub>2</sub> in Song (960–1279) x<sub>1</sub> plowing field x<sub>3</sub>  
 ∴ ∴  
 ————— s<sub>2</sub>: ∅s<sub>1</sub> ⊆ ∅s<sub>2</sub>, beside field x<sub>3</sub> there is big tree stump x<sub>4</sub>  
 ○○○ e<sub>2</sub>: ∅s<sub>1</sub> ⊆ ∅e<sub>2</sub>, hare x<sub>5</sub> darts  
 ( ● <sup>▲</sup>e<sub>2</sub>: hare x<sub>5</sub> passes stmp x<sub>4</sub> in intended w<sub>2</sub>)  
 — <sup>†</sup>s′<sub>2</sub>: s′<sub>2</sub> ⊆ <sup>∇</sup>e<sub>2</sub>, hare x<sub>5</sub> is darting carelessly (in real w<sub>0</sub>)  
 ● e′<sub>2</sub>: <sup>◁</sup>e′<sub>2</sub> ⊆ s′<sub>2</sub>, hare x<sub>5</sub> bumps into stump x<sub>4</sub>  
 ● e″<sub>2</sub>: e″<sub>2</sub> = <sup>▲▷</sup>e′ = <sup>▲</sup>s′<sub>2</sub>, hare x<sub>5</sub> breaks neck & dies



- (3) The peasant was delighted with this accidental windfall of a hare.

*Zhè-ge nóngmín wúyìzhōng dédào tùzi, shífēn gāoxìng.*

this-CL peasant accidentally get<sup>E1</sup> hare, extremely happy\S

$\top[x|peasant\langle x \rangle, x \in_i \top \delta^\circ]$ ;  $[accident\langle \perp \varepsilon \rangle]$ ;  $\top[s| \vartheta s \sqsubseteq \vartheta^\circ \perp \varepsilon]$ ;  $[e x| get\langle e, \top \delta, x \rangle, hare\langle x \rangle, \top \sigma = \triangleright e]$ ;  $[s| extremely.happy\langle s, \top \delta \rangle, \top \sigma \sqsubseteq s]$

—	( $\top$ ) $s_1$ : peasant $x_2$ in Song.land (960–1279) $x_1$
⋮	⋮
•	$e''_2$ : $e''_2 = \blacktriangleright e''_2, \triangleleft e''_2 = s'_2$ , hare $x_5$ breaks neck & dies
—	$\top s_3$ : $\vartheta s_3 \sqsubseteq \vartheta^\circ e''_2$ , peasant $x_2$ in wake of accident $e''_2$
•	$e_3$ : $\triangleright e_3 = s_3$ , peasant $x_2$ gets a hare $x_6 (= x_5)$
—	$s'_3$ : $s_3 \sqsubseteq s'_3$ , peasant $x_2$ is extremely happy

- (4) From then on, he stopped farming and stood guard by the tree stump, (hoping for another windfall of a hare.)

*Cóng-cǐ biàn fàngxià nóngjù,*

from-M<sub>evt</sub> then put.down<sup>E1</sup> farm.tools,

$\top[s| \blacktriangleright s = \blacktriangleright \perp \varepsilon]$ ;  $\top[t| t = \vartheta \top \sigma]$ ;  $[e| stop.farming\langle e, \top \delta \rangle, e = \blacktriangleright \top \sigma]$ ;

*shǒu zài shù-zhuāng pángbiān.*

guard<sup>E</sup> at tree-stump beside

$[e| stand.guard\langle e, \top \delta \rangle, \nabla e = \triangleright \perp \varepsilon]$ ;  $[x| beside\langle \perp \varepsilon, x \rangle, tree.stump\langle x \rangle, x \in \perp \delta^\circ]$

—	( $\top$ ) $s_1$ : peasant $x_2$ in Song.land (960–1279) $x_1$
⋮	⋮
•	$e_3$ : $\triangleright e_3 = s_3$ , peasant $x_2$ gets a hare $x_6 (= x_5)$
—	$s'_3$ : $s_3 \sqsubseteq s'_3$ , peasant $x_2$ is extremely happy
—	$\top s_4$ : $\blacktriangleright s_4 = \blacktriangleright e_3$ , peasant $x_2$ after $e_3$ -happy.accident
•	$e_4$ : $e_4 = \blacktriangleright s_4$ , peasant $x_2$ stops farming
• • • • ...	$e'_4$ : $\nabla e'_4 = \triangleright e_4$ , peasant $x_2$ stands guard by stmp. $x_4$

- (5) But he never got another hare.

*Dànshì, cóng-nà yǐhǒu, tā zài méiyǒu dédào tùzi.*

but, from-that after, 3SG again <NOT> get<sup>E1</sup> hare

$\top[s| \blacktriangleright s = \blacktriangleright \perp \varepsilon]$ ;  $\top[x| x = \top \delta]$ ;  $[E e| e \in E, e \in \perp \varepsilon^\circ]$ ;  $[not[e| e \in \perp \varepsilon, e \sqsubseteq \top \sigma]]$ ;  $[e x| get\langle e, \top \delta, x \rangle, hare\langle x \rangle]$ ;  $[\perp \varepsilon = \perp \varepsilon|_{\top \delta}]$

—	( $\top$ ) $s_1$ : peasant $x_2$ in Song.land (960–1279) $x_1$
⋮	⋮
•	$e_3$ : $\triangleright e_3 = s_3$ , peasant $x_2$ gets a hare $x_6 (= x_5)$
⋮	⋮
•	$e_4$ : $e_4 = \blacktriangleright s_4$ , peasant $x_2$ stops farming
• • • • ...	$e'_4$ : $\nabla e'_4 = \triangleright e_4$ , peasant $x_2$ stands guard by stump $x_4$
—	$\top s_5$ : $\blacktriangleright s_5 = \blacktriangleright e_4$ , peasant $x_2$ after $e_4$ -stop.of.farming, $x_2$ doesn't get any hares during $s_5$

[3] THE ANT AND THE DOVE

- (1) One summer day, an ant was blown by the wind into a pond.  
*Xià-tiān, yǒu yì-zhī mǎyǐ bèi fēng guā.dào-lě chítáng-lǐ.*  
 summer-M<sub>day</sub>, have\S one-CL ant AGT wind blow.to\E<sup>1</sup>-PNC pond-inside  
 ([t| *summer.day*\langle t \rangle]; <sup>†</sup>[s| *∅*s = ⊥σ]; <sup>†</sup>[x| ↑ ⊥σ =<sub>i</sub> x, *ant*\langle x \rangle]; [**1**{ ⊥δ |<sub>⊥σ</sub> }])<sup>†</sup>;  
 ([x| *wind.at*\langle x, loc ⊥σ, ∅ ⊥σ \rangle]; [e| *blown.by*\langle e, ⊥δ, ⊥δ \rangle, *in*\langle<sup>▷</sup>e, ⊥δ, ↓e \rangle,  
 ⊥ε = <sup>▲</sup>⊥σ]; [*∅*<sup>▲</sup>⊥σ < ∅ ⊥ε]; [x| *pond*\langle x \rangle]; [x| x = ↓ ⊥ε, *inside*\langle x, ⊥δ \rangle])
- (2) Seeing the ant, a dove up in a tree hastily threw a leaf into the pond.  
*Shù-shàng de gēzi kàndào-le,*  
 tree-top H dove see.rvc\E<sup>1</sup>-PNC<sup>†</sup>  
 ([x| *tree.top*\langle x \rangle]; [x| *dove*\langle x \rangle, *in*\langle x, ⊥δ \rangle]; [e| *see*\langle e, ⊥δ, ⊥δ \rangle, ∅e = ∅<sup>▲</sup>⊥σ];  
<sup>†</sup>[s| ⊥ε = <sup>▲</sup>s, ∅<sup>▲</sup>s < ∅<sup>▲</sup>s])<sup>†</sup>;  
*gǎnmáng jiāng yèzi diū.jìn chítáng.*  
 hurry\E take\E leaf throw.into\E<sup>1</sup> pond  
 [e| *hurry*\langle e, ↑e \rangle, ∇e = ▷ ⊥ε]; [e| *take*\langle e, ↑e, ↓e \rangle, e = <sup>▲</sup>⊥ε]; [x| x = ↓ ⊥ε, *leaf*\langle x \rangle];  
 [e| *throw.into*\langle e, ↑e, ⊥δ, ↓e \rangle, e = <sup>▲▷</sup>⊥ε, e = <sup>▲</sup>⊥σ]; [x| x = ↓ ⊥ε, *pond*\langle x \rangle, x ∈ ⊥<sup>▷</sup>δ]
- (3) The ant climbed up onto the leaf and, floating to the side of the pond, was saved.  
*Mǎyǐ páshàng yèzi, piāo.dào-le chí-biān, déjiù le.*  
 ant climb.up\E<sup>1</sup> leaf, float.to\E<sup>1</sup>-PNC pond-side, get.saved\E<sup>1</sup> PNC.  
 (<sup>†</sup>[s x| x = ↑s, *ant*\langle x \rangle, x ∈ ⊥<sup>▷</sup>δ]; [e| *climb.up.on*\langle e, ⊥δ, ↓e \rangle, ∅e ⊆ ∅<sup>▷</sup>⊥ε, e = <sup>▲</sup>⊥σ];  
 [x| x = ↓ ⊥ε, *leaf*\langle x \rangle, x ∈ ⊥<sup>▷</sup>δ])<sup>†</sup>; ([e| *float.to*\langle e, ↑e, ↓e \rangle, e = <sup>▲▷</sup>⊥ε, e = <sup>▲</sup>⊥σ];  
 [x| *pond*\langle x \rangle, x ∈ ⊥<sup>▷</sup>δ]; [x| x = ↓ ⊥ε, *edge*\langle x, ⊥δ \rangle]); [e| *get.saved*\langle e, ↑e \rangle, e = ⊥ε];  
 [⊥ε = <sup>▲</sup>⊥σ])
- (4) The ant remembered the dove's kindness in saving his life.  
*Mǎyǐ jì.zhù-le gēzi de jiùmìng zhī ēn.*  
 ant remember\S<sup>1</sup>-PNC dove H save.one's.life 3SG's kindness  
<sup>†</sup>[s x| x = ↑s, *ant*\langle x \rangle, x ∈ ⊥<sup>▷</sup>δ]; [s| *remember*\langle s, ⊥δ, ↓e \rangle, ⊥ε = <sup>▲</sup>s]; [<sup>▲</sup>⊥σ = <sup>▲</sup>⊥σ];  
 [x| x = ↓ ⊥ε, *dove*\langle x \rangle, x ∈ ⊥<sup>▷</sup>δ]; [e| *save.life.of*\langle e, ⊥δ, ↑ ⊥σ \rangle, e ∈ ⊥<sup>▷</sup>ε];  
 [*kindness.by*\langle ⊥ε, ↑ ⊥ε \rangle]
- (5) After a long time, a hunter with a gun aimed at the dove on the tree,  
 but the dove didn't notice.  
*Guò-le hěnjiǔ,*  
 pass-PNC long.time,  
<sup>†</sup>[s t| ∅ ⊥ε < t, *long*\langle μ\langle t \rangle \rangle, t < ∅s];  
*lièren yòng qiāng miáozhǔn-le shù-shàng de gēzi,*  
 hunter use\E gun aim.at\E-PNC tree-top H dove,  
<sup>†</sup>[x| x = ↑ ⊥σ, *hunter*\langle x \rangle]; [e| *use*\langle e, ⊥δ, ↓e \rangle, ∇e ⊆ ⊥σ]; [x| x = ↓ ⊥ε, *gun*\langle x \rangle];  
 [e| *aim.at*\langle e, ⊥δ, ↓e \rangle, e = <sup>▲</sup>⊥ε]; [⊥ε = <sup>▲</sup>⊥σ]; [x| *tree*\langle x \rangle, x ∈ ⊥<sup>▷</sup>δ]; [x| *top.of*\langle x, ⊥δ \rangle,  
 x ∈ ⊥<sup>▷</sup>δ]; [x| x = ↓ ⊥ε, *dove*\langle x \rangle, x ∈ ⊥<sup>▷</sup>δ, *in*\langle x, ⊥δ \rangle];

dànshì gēzi bù zhīdào.

but dove NOT be.aware.of\S<sup>1</sup>

[x|dove⟨x⟩, x ∈ ⊥<sup>⇒</sup>δ]; [not[s|aware.of⟨s, ⊥δ, ⊤δ⟩, ∅<sup>▲</sup>s ⊆ ∅<sup>▲</sup>⊤σ]]

- (6) The ant climbed up onto the hunter's foot, and gave him a nasty bite.

Mǎyǐ páshàng lièren de jiǎo,

ant climb.up\E<sup>1</sup> hunter H foot

<sup>⊤</sup>[s x| x = ↑s, ant⟨x⟩, x ∈ ⊤<sup>⇒</sup>δ]; [e|climb.up⟨e, ⊤δ, ↓e⟩, ∅e ⊆ ∅<sup>▷</sup>⊥ε]; [x|hunter⟨x⟩, x ∈ ⊤<sup>⇒</sup>δ]; [x|x = ↓⊥ε, foot.of⟨x, ⊥δ⟩]

hěnhěnn yǎo-le yì-kǒu.

ferociously bite\E-PNC one-bite

[e|bite⟨e, ⊤δ, ↓e⟩]; [ferocious{⊥ε, ⊥ε|<sub>⊤δ</sub>}]; [↓⊥ε = ⊥δ]

- (7) Feeling the pain of the bite, the hunter missed the shot.

Lièren bèi yǎo tòng-le,

hunter AGT bite ache\S-PNC

<sup>⊤</sup>[s x| hunter⟨x⟩, x ∈ ⊥<sup>⇒</sup>δ]; [e|bite⟨e, ↑e, ⊤δ⟩, e ∈ ⊥<sup>⇒</sup>ε]; [s|feel.pain⟨s, ⊤δ⟩, s = <sup>▷</sup>⊥ε]; [<sup>▲</sup>⊥σ = <sup>▲</sup>⊤σ];

jiù bǎ zǐdàn dǎ.wāi le.

then PAT bullet hit.askew\E<sup>1</sup> PNC

<sup>⊤</sup>[t|t = ∅<sup>▷</sup>⊤σ]; [x|bullet⟨x⟩]; [e|miss.with⟨e, ⊤δ, ⊥δ⟩, ∅e = ⊤τ]; [⊥ε = <sup>▲</sup>⊤σ]

- (8) The dove was saved, and thus the ant repaid the dove's kindness.

Gēzi déjiù-le,

dove get.saved\E<sup>1</sup>-PNC,

<sup>⊤</sup>[s x|x = ↑s, dove⟨x⟩, x ∈ ⊤<sup>⇒</sup>δ]; [e|get.saved⟨e, ⊤δ⟩, ∅e = ∅<sup>▲</sup>⊥ε]; [⊥ε = <sup>▲</sup>⊤σ]

mǎyǐ yě bàodá-le gēzi de jùnmìng zhī ēn.

ant also repay\E<sup>1</sup>-PNC dove H save.one's.life 3SG's kindness

<sup>⊤</sup>[x|ant⟨x⟩, x ∈ ⊤<sup>⇒</sup>δ]; [e|repay⟨e, ⊥δ, ↓e⟩, ∅e = ∅<sup>▲</sup>⊥ε]; [∅<sup>▲</sup>⊥ε = ∅<sup>▲</sup>⊤σ];

[x|x = ↓⊥ε, dove⟨x⟩, x ∈ ⊤<sup>⇒</sup>δ]; [e|save.life.of⟨e, ⊥δ, ⊤δ⟩, e ∈ ⊥<sup>⇒</sup>ε];

[kindness.by⟨⊥ε, ↑⊥ε⟩]

[4] LITTLE MONKEY

- (1) One day, a little monkey came down from the hills to play.  
*Yǒu yì tiān,*  
 have\S one day,  
 $\uparrow[s \ t] \text{day}\langle t \rangle, \vartheta s = t$ ];  
*yì-zhī xiǎo hóuzi xià-shān qù wán.*  
 one-CL little monkey descend-hill\E go\E<sup>1</sup> play\E  
 $\uparrow[x \ \text{little.monkey}\langle x \rangle]$ ;  $[e \ \text{descend}\langle e, \top \delta \rangle, \nabla e \sqsubseteq \top \sigma]$ ;  $[e \ \text{go}\langle e, \uparrow e \rangle, e = \blacktriangleleft \perp \varepsilon]$ ;  
 $[e \ \text{play}\langle e, \uparrow e \rangle, \nabla e = \triangleright \perp \varepsilon]$
- (2) Coming to a cornfield, he was delighted to see many big ears of corn.  
*Tā zǒu.dào yí-piàn yùmǐ dì-lǐ,*  
 3SG walk.to\E<sup>1</sup> one-M corn field-in,  
 $\uparrow[s \ \uparrow s = \top \delta]$ ;  $[e \ \text{walk.to}\langle e, \top \delta, \downarrow e \rangle, e = \blacktriangleright \perp \varepsilon]$ ;  $[x \ x = \downarrow \perp \varepsilon, \text{corn.field}\langle x \rangle]$ ;  
 $[1 \ \{\perp \delta\}_{\perp \varepsilon}]$ ;  $[\top \sigma \sqsubseteq \triangleright \perp \varepsilon]$ ;
- kàn.jian yùmǐ-jié de yòu dà yòu duō,*  
 see\E<sup>1</sup> corn-bear.fruit H both big\S and many\S,  
 $[e \ \text{see}\langle e, \top \delta, \downarrow e \rangle, \vartheta e \sqsubseteq \vartheta \top \sigma]$ ;  $[x \ s \ \text{corn.ear}\langle x \rangle, \text{in}\langle s, x, \perp \delta \rangle, \vartheta \perp \varepsilon \sqsubseteq \vartheta s]$ ;  
 $[X \ X = \perp \delta]_{\perp \sigma}]$ ;  $[\text{big}\langle \perp \delta \rangle]$ ;  $[\perp \delta t = \perp \delta]_{\perp \sigma}]$ ;  $[\perp \sigma = \mathbf{max}\{\perp \sigma\}_{\top \sigma}]$ ;  $[\text{many}\langle \perp \delta t \rangle]$ ;  
 $[\downarrow \perp \varepsilon = \sqcup \perp \delta t]$ ;
- fēicháng gāoxìng.*  
 extremely happy\S  
 $[s \ \text{extremely.happy}\langle s, \uparrow s \rangle, s = \triangleright \perp \varepsilon]$
- (3) Breaking one off, he went on carrying it on his shoulder.  
*Tā jiù bāi-le yí-ge,*  
 3SG then break.off\E<sup>1</sup>-PNC one-CL,  
 $\uparrow[s \ \uparrow s = \top \delta]$ ;  $[\top \sigma \sqsubseteq \triangleright \perp \varepsilon]$ ;  $[e \ \text{break.off}\langle e, \top \delta, \downarrow e \rangle, \vartheta e < \vartheta \blacktriangleleft \top \sigma]$ ;  $[x \ x = \downarrow \perp \varepsilon, x \in \perp \delta t]$ ;  $[1 \ \{\perp \delta\}_{\top \sigma}]$ ;  $[\top \sigma \sqsubseteq \triangleright \perp \varepsilon]$ ;
- káng-zhe wǎng-qian zǒu.*  
 carry.on.shoulder\E-DUR toward-ahead walk\E  
 $[e \ \text{carry.on.shoulder}\langle e, \top \delta, \perp \delta \rangle, \nabla e \sqsubseteq \triangleright \perp \varepsilon]$ ;  $[s \ s = \nabla \perp \varepsilon]$ ;  $[e \ \text{walk.on}\langle e, \top \delta \rangle, \nabla e \sqsubseteq \perp \sigma \sqsubseteq \top \sigma]$
- (4) Then he came to a peach tree and was delighted to see big red peaches  
*Xiǎo hóuzi zǒu.dào yì-kē táoshù xià,*  
 little monkey walk.to\E<sup>1</sup> one-CL peach tree,  
 $\uparrow[s \ x] \ \text{little.monkey}\langle x \rangle, x \in \top \delta^\circ, \uparrow s = x$ ];  $[e \ \text{walk.to}\langle e, \top \delta, \downarrow e \rangle, e = \blacktriangleright \perp \varepsilon]$ ;  
 $[x \ x = \downarrow \perp \varepsilon, \text{peach.tree}\langle x \rangle]$ ;  $[1 \ \{\perp \delta\}_{\perp \varepsilon}]$ ;  $[\top \sigma \sqsubseteq \triangleright \perp \varepsilon]$ ;
- kànjian yòu dà yòu hóng de táozi,*  
 see\E<sup>1</sup> both big\S and red\S H peach  
 $[e \ \text{see}\langle e, \top \delta, \downarrow e \rangle, \vartheta e \sqsubseteq \vartheta \top \sigma]$ ;  $[x \ s \ \text{peach}\langle x \rangle, \text{on}\langle s, x, \perp \delta \rangle, \vartheta \perp \varepsilon \sqsubseteq \vartheta s]$ ;  
 $[X \ X = \perp \delta]_{\top \sigma}]$ ;  $[\text{big}\langle \perp \delta \rangle, \text{red}\langle \perp \delta \rangle]$ ;  $[\perp \delta t = \perp \delta]_{\top \sigma}]$ ;  $[\downarrow \perp \varepsilon = \sqcup \perp \delta t]$ ;

*fēicháng gāoxìng.*  
 extremely happy\S  
 $[s | \textit{extremely.happy}\langle s, \uparrow s \rangle, \triangleright \perp \varepsilon = s]$

- (5) Dropping the corn, he went over to pick some peaches.

*Tā jiù rēng-le yùmǐ*  
 3SG then drop\E-PNC corn  
 $\top [s | \uparrow s = \top \delta]; [\top \sigma \sqsubseteq \triangleright \perp \varepsilon]; [e | \textit{drop}\langle e, \top \delta, \downarrow e \rangle, \vartheta e < \vartheta^{\blacktriangleleft} \top \sigma]; [x | x = \downarrow \perp \varepsilon, \textit{corn.ear}\langle x \rangle, x \in \perp^{\Rightarrow} \delta]; [\mathbf{1} \{ \perp \delta |_{\top \sigma} \}]; [\top \sigma \sqsubseteq \triangleright \perp \varepsilon];$

*qù zhāi táozi.*  
 go\E<sup>1</sup> pick\E peach  
 $[e | \textit{go}\langle e, \uparrow e \rangle, e = \blacktriangleleft \top \sigma]; [e | \textit{pick}\langle e, \uparrow e, \downarrow e \rangle, \nabla e = \triangleright \perp \varepsilon]; [x | x = \downarrow \perp \varepsilon, x \sqsubseteq \sqcup \textit{peach}]$

- (6) Carrying a handful of peaches, the little monkey headed back up.

*Xiǎo hóuzi pěng-zhe jǐ-ge táozi,*  
 little monkey hold\E-DUR a.few-CL peach,  
 $\top [s | x | \textit{little.monkey}\langle x \rangle, x \in \top^{\Rightarrow} \delta, \uparrow s = x]; [e | \textit{hold}\langle e, \top \delta, \downarrow e \rangle, \nabla e \sqsubseteq \triangleright^{\blacktriangleleft} \perp \varepsilon];$   
 $[s | s = \nabla \perp \varepsilon]; [x | x = \downarrow \perp \varepsilon, x \sqsubseteq \sqcup \textit{peach}]; [\perp \delta = \mathbf{max} \{ \perp \delta |_{\perp \varepsilon} \}]; [\top \sigma \sqsubseteq \perp \sigma];$

*wǎng-huí zǒu.*  
 toward-back walk\E  
 $[e | \textit{walk.back}\langle e, \top \delta \rangle, \blacktriangleright e = \blacktriangleleft \top \sigma]$

- (7) Then he saw a little rabbit hopping around. It was really lovely.

*Tā kànjian yì-zhī xiǎo tù bèng+beng tiào+tiao de,*  
 3SG see\E<sup>1</sup><sub>\top</sub> one-CL little rabbit spring+spring\E hop+hop\E SFP,  
 $\top [s | \uparrow s = \top \delta]; [e | \textit{see}\langle e, \top \delta, \downarrow e \rangle, \vartheta e \sqsubseteq \vartheta^{\blacktriangleright} \perp \varepsilon \sqsubseteq \top \sigma]; [x | x = \downarrow \perp \varepsilon, \textit{little.rabbit}\langle x \rangle];$   
 $[\mathbf{1} \{ \perp \delta |_{\top \sigma} \}]; [e | \textit{hop}\langle e, \perp \delta \rangle, \vartheta \perp \varepsilon \sqsubseteq \vartheta^{\nabla} e];$

*zhēn kěài.*  
 really lovely\S  
 $[s | \textit{really.lovely}\langle s, \perp \delta \rangle, \vartheta \top \sigma \sqsubseteq \vartheta s]$

- (8) Delighted, he dropped the peaches and went off to chase the rabbit.

*Tā fēicháng gāoxìng,*  
 3SG extremely happy\S,  
 $\top [s | \uparrow s = \top \delta]; [s | \textit{extremely.happy}\langle s, \top \delta \rangle, \top \sigma \sqsubseteq s \sqsubseteq \nabla \perp \varepsilon];$

*jiù rēng-le táozi qù zhuī xiǎo tù.*  
 then drop\E-PNC peach go\E<sup>1</sup> chase\E little rabbit  
 $[\top \sigma \sqsubseteq \triangleright \perp \varepsilon]; [e | \textit{drop}\langle e, \top \delta, \downarrow e \rangle, \vartheta e \sqsubseteq \vartheta \top \sigma]; [\mathbf{1} \langle^{\blacktriangleleft} \perp \varepsilon \rangle, \vartheta \perp \varepsilon < \vartheta \top \varepsilon];$   
 $[e | \textit{go}\langle e, \uparrow e \rangle, e = \blacktriangleleft^{\blacktriangleright} \perp \varepsilon]; [\textit{chase}\langle e, \uparrow e, \downarrow e \rangle, e = \blacktriangleright \perp \varepsilon]; [x | x = \downarrow \perp \varepsilon, \textit{little.rabbit}\langle x \rangle, x \in \perp^{\Rightarrow} \delta]$

- (9) The rabbit ran off into a wood and was seen no more.

*Xiǎo tù pǎo-jìn línzi,*

little rabbit run-into<sup>E1</sup> wood,

$\top[s\ x | \textit{little.rabbit}\langle x \rangle, x \in \perp \Rightarrow \delta, \uparrow s = x]; [e | \textit{run.into}\langle e, \top \delta, \downarrow e \rangle, \vartheta e = \vartheta \blacktriangleleft \perp \varepsilon];$

$[x | x = \downarrow \perp \varepsilon, \textit{wood}\langle x \rangle]$

*bú jiàn le.*

NOT see<sup>E</sup> PNC

$[s | s = \triangleright \perp \varepsilon, \textit{not}[e | \textit{see}\langle e, \top \delta, \top \delta \rangle, \vartheta e \sqsubseteq \vartheta s]]; [\blacktriangleleft \perp \sigma = \blacktriangleleft \top \sigma]$

- (10) So the little monkey was forced to return home empty-handed.

*Xiǎo hóuzi zhǐ.hǎo kōng-zhe shǒu huí-jiā qù le.*

little monkey per.force empty<sup>S-DUR</sup> hand return-home<sup>E1</sup> go<sup>E1</sup> PNC

$\top[s\ x | \textit{little.monkey}\langle x \rangle, x \in \top \Rightarrow \delta, \uparrow s = x]; [s | \textit{empty.handed}\langle s, \top \delta \rangle, \blacktriangleleft \triangleright \perp \sigma \sqsubseteq s];$

$[\top \sigma \sqsubseteq \perp \sigma]; [e | \textit{return.home}\langle e, \top \delta \rangle, e = \blacktriangleleft \top \sigma]$

## [5] IT'S NEVER TOO LATE

- (1) There was once a man who kept a few sheep.  
*Cóngqián yǒu gè rén, yǎng-le jǐ-zhī yáng.*  
 long.ago<sup>↑</sup> have\S<sub>↑</sub><sup>↑</sup> CL man, keep\E<sub>↑</sub>-PNC<sub>↑</sub><sup>↑</sup> few-CL sheep  
<sup>↑</sup>[t| t << ∅<sup>↑</sup>ε]; <sup>↑</sup>[s|x| ↑s = x, ∅s = <sup>↑</sup>τ]; [<sup>↑</sup>δ ⊆ ⊔man]; [**1**⟨<sup>A</sup>τδ⟩];  
 [e|x| keep⟨e, <sup>↑</sup>δ, x⟩, x ⊆ ⊔sheep, <sup>↑</sup>σ ⊆ <sup>∇</sup>e]; [<sup>⊥</sup>δ = **max**{<sup>⊥</sup>δ|<sub>τσ</sub>};] [**a.few**⟨<sup>A</sup>⊥δ⟩];  
 [e| e = <sup>▲</sup>⊥ε, e < <sup>↑</sup>ε]
- (2) One morning he noticed that one sheep had gone missing.  
*Yì-tiān zǎoshang, tā fāxiàn shǎo-le yì-zhī yáng.*  
 one-day morning<sup>↑</sup>, 3SG<sup>↑</sup> notice\E<sub>↑</sub> be.missing\S<sub>⊥</sub>-PNC<sub>↑</sub><sup>⊥</sup> one-CL sheep  
 [t| day⟨t⟩, t ⊆ ∅<sup>↑</sup>τσ]; <sup>↑</sup>[t| t = morning.of⟨<sup>⊥</sup>τ⟩]; <sup>↑</sup>[s| ↑s = <sup>↑</sup>δ, ∅s ⊆ <sup>↑</sup>τ];  
 [e|s| notice⟨e, <sup>↑</sup>δ, s⟩, e = <sup>▲</sup>τσ]; [x|x ⊆ ⊔sheep]; [s| missing.from⟨s, <sup>⊥</sup>δ,  
 loc<sup>⊥</sup>ε⟩, ∅<sup>⊥</sup>ε ⊆ ∅s]; [<sup>⊥</sup>δ = **max**{<sup>⊥</sup>δ|<sub>⊥ε</sub>};] [**1**⟨<sup>A</sup>⊥δ⟩]; [e| e = <sup>▲</sup>⊥σ, e < <sup>▲</sup>τσ]
- (3) In fact, there was a hole in the sheep pen. During the night, a wolf had sneaked in through the hole, stolen the sheep and got away with it.  
*Yuánlái yáng-juàn pò-le gè kǔlong,*  
 actually<sup>↑</sup> sheep-pen break\E<sub>↑</sub><sup>↑</sup>-PNC<sub>↑</sub> CL hole,  
<sup>↑</sup>[s| ∅<sup>▲</sup>τσ ⊆ ∅<sup>▲</sup>s]; [x| sheep.pen⟨x⟩, local.to⟨x, <sup>↑</sup>σ⟩]; [**1**{<sup>⊥</sup>δ|<sub>τσ</sub>};]  
 [e| break⟨e, <sup>⊥</sup>δ⟩, x ⊆ ⊔hole.in⟨<sup>▷</sup>e, x, <sup>⊥</sup>δ⟩, ∅e ⊆ <sup>↑</sup>σ]; [**1**{<sup>⊥</sup>δ|<sub>τσ</sub>};]  
 [<sup>⊥</sup>ε = <sup>▲</sup>τσ, <sup>⊥</sup>ε < <sup>▲</sup>τσ];  
*yèjiān láng cóng kūlong-lǐ*  
 at.night<sup>⊥</sup> wolf<sup>↑</sup> from hole-loc<sup>⊥</sup>  
 [t| t ⊆ night.of⟨<sup>⊥</sup>τ⟩]; <sup>↑</sup>[x| wolf⟨x⟩]; [x| hole.in⟨x⟩, x ∈ <sup>⊥</sup>δ];  
*zuān jìnlái bǎ yáng diāo.zǒu le.*  
 dig.in\E<sub>⊥</sub><sup>⊥</sup> enter\E<sub>⊥</sub><sup>⊥</sup> PAT sheep grab.away\E<sub>⊥</sub><sup>⊥</sup>-PNC<sub>↑</sub><sup>⊥</sup>  
 [e| dig.in⟨e, <sup>↑</sup>δ, loc<sup>▷</sup>e⟩, ∅e ⊆ <sup>⊥</sup>τ]; [at⟨<sup>◁</sup>⊥ε, <sup>↑</sup>δ, <sup>⊥</sup>δ⟩]; [e| enter⟨e, <sup>↑</sup>δ, loc<sup>▷</sup>⊥ε⟩,  
 e = <sup>▲</sup>⊥ε]; [x| sheep⟨x⟩, x ∈ <sup>⊥</sup>δ]; [<sup>⊥</sup>δ = **max**{<sup>⊥</sup>δ|};] [e| steal⟨e, <sup>↑</sup>δ, <sup>⊥</sup>δ⟩, at⟨<sup>◁</sup>e,  
<sup>⊥</sup>δ, loc<sup>⊥</sup>ε⟩, e = <sup>▲</sup>⊥ε]; [<sup>⊥</sup>ε = <sup>▲</sup>τσ, <sup>⊥</sup>ε < <sup>↑</sup>ε]; <sup>↑</sup>[s| <sup>▲</sup>s ⊆ <sup>▷</sup>⊥ε]
- (4) A neighbor advised him to cover up the hole but he was too lazy.  
*Línju quàngào tā dǔshàng nà-gè kūlong,*  
 neighbour advise\E 3SG cover.up\E<sub>⊥</sub><sup>⊥</sup> that-CL hole  
 [x|x = <sup>↑</sup>δ]; <sup>↑</sup>[x| neighbour.of⟨x, <sup>⊥</sup>δ⟩]; [e| advise.to.cover.up⟨e, <sup>↑</sup>δ, <sup>⊥</sup>δ, ↓e⟩,  
 ∅e ⊆ ∅<sup>↑</sup>τσ]; [x| hole⟨x⟩, x ∈ <sup>⊥</sup>δ]; [**1**{<sup>⊥</sup>δ|};]  
*keshi tā tai ....*  
 but 3SG<sub>⊥</sub> too lazy\S  
 [s| too.lazy⟨s, <sup>⊥</sup>δ⟩, ∅<sup>⊥</sup>ε ⊆ ∅s]

- (6) The next morning, when he went to herd his sheep, he again found that one sheep was missing.

*Dìertiān zǎoshang,*

next.day morning,

$[t \text{ day}\langle t \rangle, t \in \perp \Rightarrow \delta]$ ;  $[t \text{ day}\langle t \rangle, \text{night.aft}\langle \perp \tau \rangle \rightarrow t]$ ;  $\top [t \text{ } t = \text{morning.of}\langle \perp \tau \rangle]$ ;

*tā qù fàng.yáng,*

3SG go $\backslash$ E $\top$  herd.sheep $\backslash$ E,

$\top [x \text{ } s | x = \perp \delta, \uparrow s = x, \vartheta s \sqsubseteq \top \tau]$ ;  $[e | \text{go}\langle e, \top \delta \rangle, e = \blacktriangleright \top \sigma]$ ;  $[e | \text{herd.sheep}\langle e, \top \delta \rangle, \blacktriangleright \perp \varepsilon = \blacktriangleright e]$ ;

*fāxiàn yòu shǎo-le yì-zhī yáng .*

notice $\backslash$ E again be.missing-PNC one-CL sheep

$[e \text{ } s | \text{notice}\langle e, \top \delta, s \rangle, e = \blacktriangleright \top \sigma]$ ;  $[x | x \sqsubseteq \perp \text{sheep}]$ ;  $[s | \text{missing.from}\langle s, \perp \delta, \text{loc}\perp \varepsilon \rangle, \vartheta \perp \varepsilon \sqsubseteq \vartheta s]$ ;  $[\perp \delta = \text{max}\{\perp \delta | \perp \varepsilon\}]$ ;  $[1 \langle \perp \delta \rangle]$ ;  $[e | e = \blacktriangleright \perp \sigma, e < \blacktriangleright \top \sigma]$

- (7) Apparently the wolf had again got in through the hole,

*Yuánlái láng yòu cóng kūlong-lǐ zuān jìnlái*

actually wolf again from hole-loc dig.in $\backslash$ E $\top$  enter $\backslash$ E $\top$

grabbed a sheep and and got away with it.

*bǎ yáng diào.zǒu-le .*

PAT sheep grab.away-PNC

- (8) *Tā hěn hòuhuǐ , bù.gāi bù jiēshòu línju de quàngào.*

3SG very sorry $\backslash$ S , NOT.AM $\top$  NOT follow $\backslash$ E [neighbour H advice]

The man was very sorry that he had not followed his neighbour's advice.

- (9) *Tā gǎnkuài dǔshàng nà-gè kūlong , bǎ yáng-juàn xiū-de-jiējiēshíshi de*

3SG quickly cover.up $\backslash$ E $\top$  that-CL hole, PAT sheep-pen fix-H-secure SFP

He immediately plugged up the hole and secured the sheep pen.

- (10) *Cóng-cǐ , tā-de yáng zài méiyǒu bèi láng diào.zǒu le.*

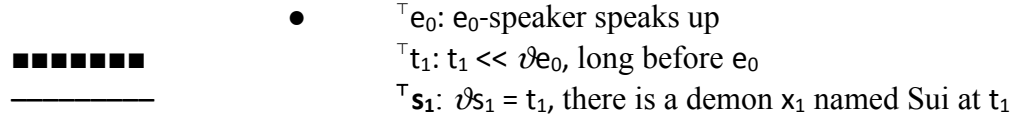
from-then , 3SG-H sheep again  $\blacktriangleleft$ NOT AGT wolf grab.leave $\backslash$ E $\top$  SFP

From then on, no more of his sheep were stolen by wolves.

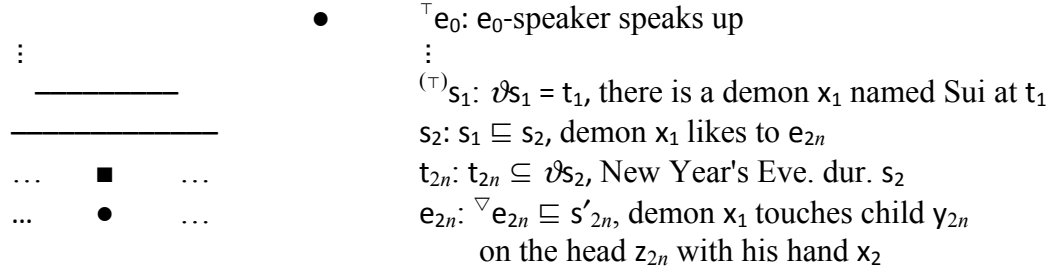


[6] CHINESE NEW YEAR

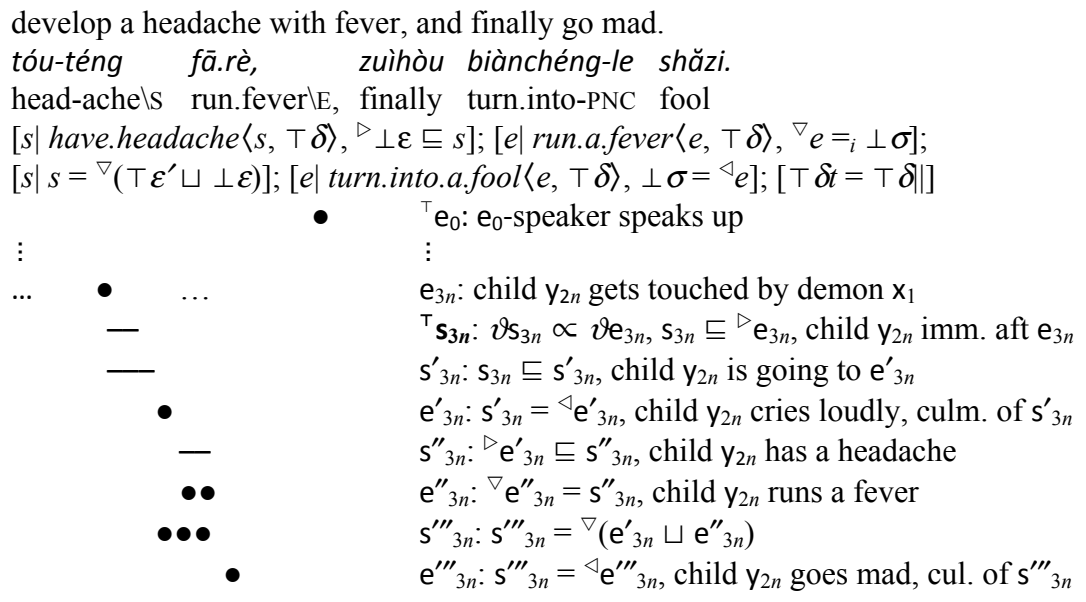
- (1) Long ago<sup>T</sup>, there was a demon<sup>L</sup> called the "Evil One".  
*Gǔ shíhou, yǒu yī-ge xiǎoyāo jiào "Suì".*  
 ancient\S time, have\S one-CL demon named\S<sup>L</sup> "Evil One"  
<sup>T</sup>[*t* *t* << ∅<sup>T</sup> *ε*]; <sup>T</sup>[*s* | ∅<sup>S</sup> = <sup>T</sup> *τ*]; [*x* | *x* = <sup>↑</sup> <sup>T</sup> *σ*, demon<*xx1 { ⊥ *δ* |<sub>Tτ</sub> }]*



- (2) He<sup>T</sup> liked to touch children on the head with his hands on New Year's Eve.  
*Tā xǐhuan zài chūxī wǎn-shàng yòng shǒu mō hái zi de tóu.*  
 3SG like\S at New.Yr.Eve night-loc with hand touch/E [child H head]  
<sup>T</sup>[*x* | *x* = ⊥ *δ*]; [*s* | *E* like.to<*s*, <sup>T</sup> *δ*, *ET *σ* ⊆ *s*]; [*t* | new.yr.eve<*tt* ⊆ <sub>τ</sub> ⊥ *σ*]; [*x* | hand.of<*x*, <sup>↑</sup> ⊥ *σe* | touch<*e*, <sup>↑</sup> *e*, <sup>↓</sup> *ee* ⊆ <sub>τ</sub> ⊥ *τ*]; [*use*< ⊥ *ε*, <sup>↑</sup> ⊥ *ε*, ⊥ *δx* | child<*xx* | *x* = <sup>↓</sup> ⊥ *ε*, *x* = head.of< ⊥ *δε* *t* = ⊥ *e* |<sub>⊥σ</sub>]*



- (3) [A child touched by him<sup>L</sup>]<sup>T</sup> would cry loudly, ...  
*Bèi tā mō-guò de hái zi jiù huì dà.kū,*  
 AGT 3SG touch-<sup><</sup>ASP H child then AM<sup>></sup> cry.loudly  
 [*e* | *x* = <sup>T</sup> *δ*, touched.by<*e*, <sup>↑</sup> *e*, *xT[*s* | ⊥ *ε* ∝ *s*]; <sup>T</sup>[*x* | *x* = <sup>↑</sup> ⊥ *ε*, child<*xx* ∈ ⊥ *δ*<sup>></sup>]; <sup>T</sup>[*X* | *X* = <sup>T</sup> *δ*]; [<sup>T</sup> *σ* ⊆ <sup>▷</sup> ⊥ *ε*]; [*s* | <sup>T</sup> *σ* ⊆ *s*]; [*e* | cry.loudly<*e*, <sup>T</sup> *δσ* = <sup><</sup> *e*]*



- (4) Therefore, every New Year's Eve, every family ...

*Suǒyǐ, měi nián chùxī, měi yī-jiā*

therefore, every  $M_{yr}$  New.Yr.Eve, every one-CL<sub>fam</sub>

$\uparrow[t \text{ new.yr.eve}\langle t \rangle, t \in \perp \tau^{\rightarrow}]; \uparrow[T T =_i \uparrow \tau]; \uparrow[s | \text{family}\langle \uparrow s \rangle, \vartheta s = \uparrow \tau]; \uparrow[S | S =_i \uparrow \sigma]_{\uparrow \tau}$

stayed up with bright lights on.

*dōu liàng-zhe dēng bú shuì.jiào.*

DIS bright-DUR light NOT fall.asleep\E<sup>1</sup>

$[s | \text{bright}\langle s, x \rangle, x \in \sqcup \text{light.of}\langle \uparrow \uparrow \sigma \rangle, \uparrow \sigma \in \vartheta s]; [\text{not}[e | \text{fall.asleep}\langle e, \uparrow \delta \rangle,$

$\vartheta e \in \uparrow \tau]; [\uparrow \sigma = \uparrow \sigma]_{\uparrow \tau}; [\uparrow \tau = \uparrow \tau]$

⋮		●		$\uparrow e_0$ : e <sub>0</sub> -speaker speaks up	⋮
					⋮
...	■			$s_2$ : $s_1 \sqsubseteq s_2$ , demon $x_1$ likes to $e_{2n}$	
⋮				$t_{2n}$ : $t_{2n} \sqsubseteq \vartheta s_2$ , New Year's Eve. dur. $s_2$	⋮
...	■			$\uparrow t_{4n}$ : $t_{4n} = t_{2n}$ , New Year's Eve. dur. $s_2$	
...	-			$\uparrow s_{4n}$ : $\vartheta s_{4n} = t_{4n}$ , family $\uparrow s_{4n}$ on New Yr's Eve. $t_{4n}$	
...	-			$s'_{4n}$ : $s_{4n} \sqsubseteq s'_{4n}$ , lights $x_{4n}$ of family $\uparrow s_{4n}$ are bright,	
				family $\uparrow s_{4n}$ doesn't fall asleep during $t_{4n} = \vartheta s_{4n}$	

- (5) There was one couple who cherished their little boy.

*Yǒu yī-jiā fūqī hěn bǎobèi tāmen de xiǎo érzi.*

have\S one-CL<sub>fam</sub> couple POS cherish\S 3PL H little son

$\uparrow[s | \uparrow \sigma \sqsubseteq s]; \uparrow[x | x = \uparrow \uparrow \sigma, \text{couple}\langle \uparrow \delta \rangle]; [\mathbf{1} \{ \uparrow \delta \}_{\uparrow \sigma}]; [s | \text{cherish}\langle s, \uparrow \delta, \downarrow s \rangle,$

$\uparrow \sigma \sqsubseteq s]; \uparrow[x | \nabla x = \nabla \uparrow \delta]; [\mathbf{2}^+ \langle \uparrow \delta \rangle]; [x | \text{little.son.of}\langle x, \uparrow \delta \rangle]$

⋮		●		$\uparrow e_0$ : e <sub>0</sub> -speaker speaks up	⋮
					⋮
...	-			$(\uparrow) s_{4n}$ : $\vartheta s_{4n} = t_{4n}$ , family $\uparrow s_{4n}$ on New Yr's Eve. $t_{4n}$	
...	-			$s'_{4n}$ : $s_{4n} \sqsubseteq s'_{4n}$ , lights $x_{4n}$ of family $\uparrow s_{4n}$ are bright,	
				family $\uparrow s_{4n}$ doesn't fall asleep during $t_{4n} = \vartheta s_{4n}$	
				$\uparrow s_5$ : $s_{4n} \sqsubseteq s_5$ , couple $x_5$ at $s_{4n}$ -time	
				$s'_5$ : $s_5 \sqsubseteq s'_5$ , couple $x_5$ cherishes their little son $y_5$	

- (6) One New Year's Eve, ...

*Chúxī yèwǎn,*

New.Yr.Eve evening,

$\uparrow[t \text{ new.yr.eve}\langle t \rangle, t \in_i \uparrow \tau];$

they carelessly wrapped up eight coins in red paper ...

*tāmen bùjīngyì-de jiāng bā-méi tóngqián yòng hóng zhǐ bāo.qǐlái,*

3PL careless-ADV PAT 8-CL coin with red paper wrap.up\E<sup>1</sup>

$[\mathbf{2}^+ \langle \uparrow \delta \rangle]; \uparrow[s | \uparrow s =_i \uparrow \delta, \vartheta s \sqsubseteq \uparrow \tau]; [\text{careless}\langle \uparrow \sigma, \uparrow \uparrow \sigma \rangle]; [x | x = \downarrow \uparrow \sigma, \mathbf{8} \langle \uparrow x \rangle,$

$x \sqsubseteq \sqcup \text{coin}]; [e | \text{use}\langle e, \uparrow \delta, x \rangle, \text{red.paper}\langle x \rangle, \text{wrap.up}\langle e, \uparrow \delta, \downarrow \uparrow \sigma \rangle, e = \blacktriangleright \uparrow \sigma];$

and put them under the pillow of their sleeping child.

fàng.zài shúshuì de háizi de zhěntou xiàmiàn.

put.in\E<sup>1</sup> [[fast.asleep\S H child] H pillow under]

[e|put.in⟨e, T δ, ↓ T σ, ↓ e⟩, e ⊆ <sup>▷</sup> ⊥ ε]; [s|fast.asleep⟨s, ↑ s⟩, ⊥ ε ⊆ <sub>τ</sub> s]; [x|x = ↑ ⊥ σ, child.of⟨x, T δ⟩]; [x|pillow.of⟨x, ⊥ δ⟩]; [x|x = ↓ ⊥ ε, space.under⟨x, ⊥ δ⟩]

<p>⋮</p> <p>_____</p> <p>_____</p> <p>■ ■ ■</p> <p>—</p> <p>●</p> <p>●</p> <p>_____</p>	<p>● T e<sub>0</sub>: e<sub>0</sub>-speaker speaks up</p> <p>⋮</p> <p>(<sup>τ</sup>) s<sub>5</sub>: s<sub>4n</sub> ⊆ s<sub>5</sub>, couple x<sub>5</sub> at s<sub>4n</sub>-time</p> <p>s' <sub>5</sub>: s<sub>5</sub> ⊆ s' <sub>5</sub>, couple x<sub>5</sub> cherishes their little son y<sub>5</sub></p> <p>T t<sub>6</sub>: t<sub>6</sub> ∈ {t<sub>2n</sub>: ...}, New Year's Eve. dur. s<sub>2</sub></p> <p>T s<sub>6</sub>: ∅ s<sub>6</sub> ⊆ t<sub>6</sub>, couple x<sub>5</sub> one New Yr. Eve t<sub>6</sub>, careless</p> <p>e<sub>6</sub>: e<sub>6</sub> = <sup>▲</sup> s<sub>6</sub>, couple x<sub>5</sub> wrap 8 coins x<sub>6</sub> in red paper</p> <p>e' <sub>6</sub>: e' <sub>6</sub> ⊆ <sup>▷</sup> e<sub>6</sub>, couple x<sub>5</sub> put coins x<sub>6</sub> in space y<sub>6</sub> under pillow z<sub>6</sub> of x<sub>5</sub>'s son y<sub>5</sub></p> <p>s' <sub>6</sub>: ∅ e' <sub>6</sub> ⊆ ∅ s' <sub>6</sub>, x<sub>5</sub>'s son y<sub>5</sub> is fast asleep</p>
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(7) At midnight, when the Evil One was about to touch the child on the head, ...

Bànyè Sui gāng yào qù mō háizi de tóu,

midnight Evil.One just AM<sup>></sup> go\E<sup>1</sup> touch\E child H head

T [t|midnight.of⟨t, T τ⟩]; [x|nm⟨x⟩ = evil.one, x ∈ T δ<sup>∞</sup>]; [s|abt.to.touch⟨s, ⊥ δ, ↓ s⟩, T τ ∝ ∅ s, T τ ⊆ <sub>τ</sub> s]; [x|child.of⟨x, T δ⟩, x ∈ ⊥ δ<sup>∞</sup>]; [x|x = ↓ ⊥ σ, head.of⟨⊥ δ⟩];

the area around the pillow flashed with a bright flash, ...

zhěntóu-biān jiù fāchū shǎnguāng,

pillow-side then emit\E<sup>1</sup> flash

[x|pillow⟨x⟩, x ∈ ⊥ δ<sup>∞</sup>]; [x|area.around⟨x, ⊥ δ⟩]; T [s|∅ s = T τ]; [e|emit⟨e, ⊥ δ, ↓ e⟩, e = <sup>▲</sup> T σ]; T [x|x = ↓ ⊥ ε, flash⟨x⟩];

which scared the Evil One away.

xià dé Sui táo.pǎo le.

frighten\E H Evil.One run.away\E SFP

[e|frighten⟨e, T δ, ↓ e⟩, e = <sub>τ</sub> ⊥ ε]; [x|x = ↓ ⊥ ε, name⟨x⟩ = evil.one, x ∈ ⊥ δ<sup>∞</sup>]; [e|run.away⟨e, ⊥ δ⟩, <sup>▷</sup> ⊥ ε = <sup>◁</sup> e]; [⊥ ε = <sub>τ</sub> <sup>▲</sup> T σ]

<p>⋮</p> <p>●</p> <p>_____</p> <p>■</p> <p>—</p> <p>—</p> <p>●</p> <p>●</p> <p>●</p>	<p>● T e<sub>0</sub>: e<sub>0</sub>-speaker speaks up</p> <p>⋮</p> <p>e' <sub>6</sub>: e' <sub>6</sub> ⊆ <sup>▷</sup> e<sub>6</sub>, couple x<sub>5</sub> put coins x<sub>6</sub> in space y<sub>6</sub> under pillow z<sub>6</sub> of x<sub>5</sub>'s son y<sub>5</sub></p> <p>s' <sub>6</sub>: ∅ e' <sub>6</sub> ⊆ ∅ s' <sub>6</sub>, x<sub>5</sub>'s son y<sub>5</sub> is fast asleep</p> <p>T t<sub>7</sub>: midnight of New Yr. Eve t<sub>6</sub></p> <p>s<sub>7</sub>: t<sub>7</sub> ∝ ∅ s<sub>7</sub>, t<sub>7</sub> ⊆ ∅ s<sub>7</sub>, Evil One x<sub>1</sub> just about to touch child y<sub>5</sub> on the head</p> <p>T s' <sub>7</sub>: ∅ s' <sub>7</sub> = t<sub>7</sub>, area x<sub>7</sub> around pillow z<sub>6</sub> at midnight t<sub>7</sub></p> <p>e<sub>7</sub>: e<sub>7</sub> = <sup>▲</sup> s<sub>7</sub>, area x<sub>7</sub> around pillow z<sub>6</sub> emits flash y<sub>7</sub></p> <p>e' <sub>7</sub>: ∅ e<sub>7</sub> = ∅ e<sub>7</sub>, flash y<sub>7</sub> frightens the Evil One x<sub>1</sub></p> <p>e'' <sub>7</sub>: <sup>▷</sup> e' <sub>7</sub> = <sup>◁</sup> e'' <sub>7</sub>, ∅ e'' <sub>7</sub> = ∅ s' <sub>7</sub>, Evil One x<sub>1</sub> runs away</p>
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(8) For in fact, the eight coins ...

*Yuánlái bā-méi tóngqián*

prev./in.fact eight-CL coin

$\top[s \ X] \ be\langle s, \uparrow s, X \rangle, s \subseteq_{\tau} \triangleleft \top \sigma$ ;  $\top[x | x = \uparrow \top \delta, \mathbf{8}\langle^A x \rangle, x \subseteq \sqcup coin, x \in \perp \delta^{\circ}]$ ;

were eight angels who had turned into coins and secretly come to protect children.

*shì bā-xiān [biàn-de ànzhōng lái bǎohù háizi] de.*

$be\backslash s^1$  eight-CL<sub>angel</sub> turn-into secretly come<sub>E</sub><sup>1</sup> protect<sub>E</sub> child H

$[s | be\langle s, \top \delta, \top \delta t \rangle, \top \sigma \subseteq_{\tau} s]$ ;  $[x | \mathbf{8}\langle^A x \rangle, x \subseteq \sqcup angel]$ ;  $[e | turn.into\langle e, \perp \delta, \{\top \delta\} \rangle, e \subseteq_{\tau} \top \sigma]$ ;  $[e | secretly.come\langle e, \uparrow e \rangle, \triangleright \perp \varepsilon = \triangleleft e]$ ;  $[e | protect\langle e, \uparrow e, \downarrow e \rangle, \downarrow e \subseteq \sqcup child, \triangleright \perp \varepsilon = \triangleleft e]$ ;  $[\top \delta t = \perp \delta]$

- $\top e_0$ :  $e_0$ -speaker speaks up
- ∴ ∴
- $e'_6$ :  $e'_6 \subseteq \triangleright e_6$ , couple  $x_5$  put coins  $x_6$  in space  $\gamma_6$  under pillow  $z_6$  of  $x_5$ 's son  $\gamma_5$
- ∴ ∴
- $\top t_7$ : midnight of New Yr. Eve  $t_6$
- $s_7$ :  $t_7 \propto \vartheta^A s_7, t_7 \subseteq \vartheta s_7$ , Evil One  $x_1$  just about to touch child  $\gamma_5$  on the head
- $\top s'_7$ :  $\vartheta s'_7 = t_7$ , area  $x_7$  around pillow  $z_6$  at midnight  $t_7$
- $e_7$ :  $e_7 = \blacktriangle s_7$ , area  $x_7$  around pillow  $z_6$  emits flash  $\gamma_7$
- $e'_7$ :  $\vartheta e_7 = \vartheta e_7$ , flash  $\gamma_7$  frightens the Evil One  $x_1$
- $e''_7$ :  $\triangleright e'_7 = \triangleleft e''_7, \vartheta e''_7 = \vartheta^A s'_7$ , Evil One  $x_1$  runs away
- $\top s_8$ :  $s_8 \subseteq_{\tau} \triangleleft \blacktriangle s_7$ , 8 coins  $x_6$  are in  $Y_8$  (their orig. form)
- $s'_8$ :  $s_8 \subseteq_{\tau} s'_8$ , 8 coins  $x_6$  are in  $Y_8$ -set of 8 angels  $\gamma_8$  s.t.  $e_8 - e''_8$
- $e_8$ :  $e_8 \subseteq_{\tau} s_8$ , 8 angels  $\gamma_8$  turn into 8 coins  $x_6$
- $e'_8$ :  $\triangleright e_8 = \triangleleft e'_8$ , 8 angels  $\gamma_8$  secretly arrive
- $e''_8$ :  $\triangleright e'_8 = \triangleleft e''_8$ , 8 angels  $\gamma_8$  protect child(ren)