

AMELE SWITCH REFERENCE AS TEMPORAL RECENTERING

Abstract

Amele (Papuan, New Guinea) is a tense-mood-based language (in the typology of Bittner 2014) with an elaborate system of clause chaining, including switch reference (SR) and serial verb constructions (SVC) (see Roberts 1987, 1988, 1990, 1991, 1996, 2001, 2007). This draft analyzes two interlinear Amele texts (from Roberts 2007) in Update with Centering (UC, Bittner 2014). The basic idea is that an SR-chain is a topic-comment sequence about a *topical development* — in terms of UC, a topic time framing a chain of causally linked events. In contrast, an SVC is a chain of verbs that jointly introduce a single eventuality into discourse (i.e. complex predicate where multiple verbs co-specify the same eventuality).

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Glosses in Amele texts

<u>gloss & category in this ms.</u>	<u>John Roberts 1987</u>	<u>E.g. (h- ‘come.3SG...’)</u>
• matrix realis tense inflections		
PRS present	PRS present	<i>hona</i>
PST past	REMP remote past	<i>hon</i>
~PST negative PST	NEGP negative past	<i>qee hol</i>
TOD.P today’s past	TODP today’s past	<i>hoia</i>
YST.P yesterday’s past	YESTP yesterday’s past	<i>hoian</i>
HAB.P habitual past	HABP habitual past	<i>holoi</i>
• matrix not (yet) realized tense/mood inflections		
FUT future	FUT future	<i>hugian</i>
~FUT negative FUT	NEGF negative future	<i>qee hoiaun</i>
IMP/OPT imperative/optative	IMP/INJ imperative/injunctive	<i>hoia</i>
~IMP/OPT negative IMP/OPT	PROH/APP prohibitive/apprehensive	<i>(cain) hoiaun</i>
IRR irrealis	CONTR counterfactual	<i>houb</i>
INF infinitive	INF infinitive	<i>hoc</i>
• medial switch-reference inflections (SU = subject)		
SS same SU	INF infinitive	<i>hu</i>
SEQ.SS sequential, same SU	SEQ.SS sequential, same SU	<i>humei</i>
SEQ.SS.M sequential, same SU, modal	SEQ.SS.COND seq., same SU, conditional	<i>hufei</i>
SIM.SS simultaneous, same SU	SIM.SS simultaneous, same SU	<i>hoi</i>
SEQ.DS sequential, different SU	SEQ.DS sequential, different SU	<i>hocob</i>
SIM.DS simult., different SU	SIM.DS.REALIS simult., different SU, realis	<i>hon</i>
SIM.DS.M simult., diff. SU, modal	SIM.DS.IRREALIS simult., different SU, irrealis	<i>hob</i>
• medial inflection in verb series/clause series		
VV verb series	PRED predicate marker	<i>hu</i>
• person & number inflections/pronouns		
1SG 1st singular	1s	E.g. (<i>h-...-an</i> ‘come...PST’) <i>hugan</i> ‘I came (yst)’
2SG 2nd singular	2s	<i>hogan</i> ‘you came (yst)’
3SG 3rd singular	3s	<i>hoian</i> ‘s/he came (yst)’
1DU 1st dual	1D	<i>howan</i> ‘we (2) came (yst)’
2DU 2nd dual	2/3D	<i>hosian</i> ‘you (2) came (yst)’
3DU 3rd dual	2/3D	<i>hosian</i> ‘they (2) came (yst)’
1PL 1st plural	1P	<i>hoqan</i> ‘I (3 ⁺) came (yst)’
2PL 2nd plural	2/3P	<i>hoigan</i> ‘you (3 ⁺) came (yst)’
3PL 3rd plural	2/3P	<i>hoigan</i> ‘they (3 ⁺) came (yst)’

[1] THE CHICKEN AND THE WALLABY

(1) [A chicken and a wallaby]^T ...

\m Mala cudumac=ca ale
 \g chicken wallaby=with they(2)
 \uc ^T[x | *chicken*_{TΩ}(x)]; ^T[x | *wallaby*_{TΩ}(x)]; ^T[x | $x =_i \top \delta \sqcup \top' \delta$]; [**2**($\top \delta$)];

... made a canoe_⊥

\m wag
 \g canoe
 \uc [x | *canoe*_{Tω}(x)];

\m jel-esi.n
 \g wrap^e-3DU.PST^T
 \uc ^T[t | $t <_{TΩ} \top \varepsilon$]; [e | *make*_{Tω}(e , $\top \delta$, $\perp \delta$), $e \subseteq_{Tω} \top \tau$]; ^T[p | $p = \top \omega ||_{TΩ}$]

(2) Then^{Tt} ...

\m Wag
 \g canoe
 \uc (((((∂[*canoe*_{Tω}($\perp \delta$)];

\m jel-m-esi
 \g wrap_{⊥ε}-SEQ.SS^T-3DU
 \uc [*make*_{Tω}($\perp \varepsilon$, $\top \delta$, $\perp \delta$)]; ^T[t | $\perp \varepsilon \rightarrow_{Tω} t$]; [e | $e \subseteq_i \top \tau$, $e \subseteq_{Tω} \triangleright \perp \varepsilon$, $\uparrow e \subseteq_i \uparrow \perp \varepsilon$)]^T; ...

... they_T gave their canoe_⊥ a push ...

\m ale wag
 \g they(2) canoe
 \uc (∂[**2**($\top \delta$)]; ∂[*canoe*_{Tω}($\perp \delta$)];

\m sun-d-oco-bil
 \g push-3SG-SEQ.DS-3DU
 \uc [*push*_{Tω}($\perp \varepsilon$, $\top \delta$, $\perp \delta$)]; [e | $e \subseteq_i \top \tau$, $e \subseteq_{Tω} \triangleright \perp \varepsilon$, $\uparrow e \not\subseteq_i \uparrow \perp \varepsilon$)]^T; ...

... so that it_⊥ slid down into the sea. ...

\m macas=na n-oco-b
 \g sea=to go.down-SEQ.DS-3SG
 \uc (([*into.sea*_{Tω}($\perp \varepsilon$, $\perp \delta$), *go.dwn*($\perp \varepsilon$, $\perp \delta$)]; [e | $e \subseteq_i \top \tau$, $e \subseteq_{Tω} \triangleright \perp \varepsilon$, $\uparrow e \not\subseteq_i \uparrow \perp \varepsilon$)]^T);

... They_T climbed aboard_⊥, ...

\m ale wag
 \g they(2) canoe
 \uc (∂[**2**($\top \delta$)]; ∂[*canoe*_{TΩ}($\perp \delta$)];

\m tobi-m-esi
 \g climb.up-SEQ.SS-3DU
 \uc [*climb.into*_{Tω}($\perp \varepsilon$, $\top \delta$, $\perp \delta$)]; [e | $e \subseteq_{Tω} \top \tau$, $e \subseteq_{Tω} \triangleright \perp \varepsilon$, $\uparrow e \subseteq_i \uparrow \perp \varepsilon$)]^T; ...

... and off they_T went.

\m bel-esi.n
 \g go-3DU.PST
 \uc (($\top \tau <_{TΩ} \top \varepsilon$); [*go.away*_{Tω}($\perp \varepsilon$, $\top \delta$)]; [$\perp \varepsilon \subseteq_{Tω} \top \tau$)]); ^T[p | $p = \top \omega ||_{TΩ}$]

Model for (1)–(2)

<i>Dref</i>	<i>Symbol: Description</i>	<i>Temporal-modal cnds.</i>	<i>Source</i>
$\top w_0 \in \top p_2 \subseteq (\top) p_1 \dots$	$\top w_0$: candidate for e_0 -world		$^{st}e_0$
■ ■	• $\top e_0$: $\uparrow e_0$ addresses $\downarrow e_0$	$\exists t: t = \vartheta_{p_0} e_0$	$^{st}e_0$
•	$\top t_1$: e_0 - <i>past</i> e_1 : chk. $x_1 \sqcup$ willb. x_2 make canoe y_1	$t_1 <_{p_0} e_0$ $e_1 \subseteq_{w_0} t_1$	PST [†] V^e -PST
■ ■ ■ ■ ■ ■	$\top t_2$: e_1 - <i>imm.future</i> , e_0 - <i>past</i>	$e_1 \prec_{w_0} t_2 <_{p_1} e_0$	SEQ [†] ... PST
•	$e_{2.1}$: $x_1 \sqcup x_2$ give y_1 a push	$e_{2.1} \subseteq_{w_0} t_2, e_{2.1} \subseteq_{w_0} \triangleright e_1$	V^e -SEQ
•	$e_{2.2}$: y_1 slides down into sea	$e_{2.2} \subseteq_{w_0} t_2, e_{2.2} \subseteq_{w_0} \triangleright e_{2.1}$	V^e -SEQ
•	$e_{2.3}$: $x_1 \sqcup x_2$ climb up into y_1	$e_{2.3} \subseteq_{w_0} t_2, e_{2.3} \subseteq_{w_0} \triangleright e_{2.2}$	V^e -SEQ
•	$e_{2.4}$: $x_1 \sqcup x_2$ go away	$e_{2.4} \subseteq_{w_0} t_2, e_{2.4} \subseteq_{w_0} \triangleright e_{2.3}$	V^e -SEQ

(3) **While^{††} they_† were out on they open sea in their canoe_† ...**

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\m Wag=na                macas launo
\g [canoe=in              sea ocean
\uc ((([canoe†Ω⟨⊥δ⟩, in†Ω⟨⊥ε, †δ, ⊥δ⟩]; [on.open.sea†Ω⟨⊥ε⟩];

\m be.bel-esin
\g go.goe⊥ε-SIM.DS†.3DU
\uc [e|keep.going†ω⟨e, †δ⟩, ⊥ε=i †∇e];
  ((†[t|t ⊆†ω ∇⊥ε]; [e|e ⊆i †τ, e ⊆†ω ∇⊥ε, †e ⊈i †⊥ε])†; ...

... a breeze† sprang up ...

\m fufu                hu-m-ei
\g wind                come-SEQ.SS-3SG
\uc ([x|breeze†ω⟨x⟩]; [arrive†ω⟨⊥ε, ⊥δ⟩]; [e|e ⊆†ω †τ, e ⊆†ω ▷⊥ε, †e ⊆i †⊥ε])†;

... and took hold of the chicken's tail†, ...

\m mala uqa=na dodo
\g chicken he=of tail
\uc (†[x]; ![x|chicken†Ω⟨x⟩, x ∈i †⇒δ, tail.of†ω⟨†δ, x⟩];

\m hew-ec-e-b
\g take.hold-SEQ.DS-3SG
\uc [take.hold.of†ω⟨⊥ε, ⊥δ, †δ⟩]; [e|e ⊆†ω †τ, e ⊆†ω ▷⊥ε, †e ⊈i †⊥ε])†; ...

... so that it† went “kom, ..., kom”.

\m kom-i kom-i kom-i-e.n
\g kom-vv kom-vv ... kom-vv-3SG.PST
\uc ((††τ <†Ω †ε]; [keep.saying.kom†ω⟨⊥ε, †δ⟩, ⊥ε ⊆†ω †τ]); †[p|p = †ω||†Ω]

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Model for (3)

<u>Dref</u>	<u>Symbol: Description</u>	<u>Temporal-modal cnds.</u>	<u>Source</u>
$\top w_0 \in \top p_3 \subseteq (\top) p_2 \dots$	$\top w_0$: candidate for e_0 -world		$^{st}e_0$
\vdots	$\bullet \top e_0$: $\uparrow e_0$ addresses $\downarrow e_0$	$\exists t: t = \emptyset_{p_0} e_0$	$^{st}e_0$
\bullet	\vdots	\vdots	\vdots
$\bullet \bullet \bullet \bullet \bullet \bullet \dots$	$e_{2.4}$: $x_1 \sqcup x_2$ go away	$e_{2.4} \subseteq_{w_0} t_2, e_{2.4} \subseteq_{w_0} \triangleright e_{2.3}$	v^e -SEQ
$\blacksquare \blacksquare \blacksquare \blacksquare \blacksquare \dots$	$e_{3.0}$: $x_1 \sqcup x_2$ keep going in in canoe y_1 on open sea	$e_{2.4} = \blacktriangleright \nabla e_{3.0}$	$v_{\perp \varepsilon}^e$
\bullet	$\top t_3$: during $e_{3.0}$, e_0 - <i>past</i>	$t_3 \subseteq_{w_0} \nabla e_{3.0}, t_3 <_{p_2} e_0$	SIM $^\top$... PST
\bullet	$e_{3.1}$: breeze x_3 arrives	$e_{3.1} \subseteq_{w_0} t_3, e_{3.1} \subseteq_{w_0} \nabla e_{3.0}$	$v_{\perp \varepsilon}^e$ -SIM
\bullet	$e_{3.2}$: breeze x_3 takes hold of chicken x_1 's tail y_3	$e_{3.2} \subseteq_{w_0} t_3, e_{3.2} \subseteq_{w_0} \triangleright e_{3.1}$	v^e -SEQ
$\bullet \bullet \bullet$	$e_{3.3}$: x_1 's tail y_3 keeps saying "kom, ..., kom"	$e_{3.3} \subseteq_{w_0} t_3, e_{3.3} \subseteq_{w_0} \triangleright e_{3.2}$	v^e -SEQ

(4) When $^\top$...

\m od-oco-b
\g do $_{\perp \varepsilon}$ -SEQ.DS $^\top$ -3SG
\uc ((([$e | e =_i \blacktriangleright \nabla \perp \varepsilon$]; $^\top [t | \perp \varepsilon \leftarrow_{\top \omega} t$]; [$e | e \subseteq_i \top \tau, e \subseteq_{\top \omega} \triangleright \perp \varepsilon, \uparrow e \not\subseteq_i \uparrow \perp \varepsilon$]) $^\top$; ...
... the wallaby $^{\top x}$ saw it $^{\top s}$, ...
\m cudumac uqa
\g wallaby he
\uc ($^\top [x | wallaby_{\top \Omega} \langle x \rangle, x \in_i \top \delta$];
\m f-ec-e-b
\g see-3SG $^{\top s}$.SEQ.DS-3SG
\uc ($^\top [s | \perp \varepsilon =_i \blacktriangleright s$]; [$see_{\top \omega} \langle \perp \varepsilon, \top \delta, \top \sigma \rangle$]; [$e | e \subseteq_{\top \omega} \top \tau, e \subseteq_{\top \omega} \triangleright \perp \varepsilon, \{e\} \not\subseteq_i \text{Dom } \uparrow$]) $^\top$;
... it $_{\top \sigma}$ made him $_{\top}$ jealous.
\m gale _-d-o.n
\g jealousy tv-3SG-3SG $_{\top \sigma}$.PST
\uc [$\top \tau <_{\top \Omega} \top \varepsilon$]; [$make.jealous_{\top \omega} \langle \perp \varepsilon, \top \sigma, \top \delta \rangle, \perp \varepsilon \subseteq_{\top \omega} \top \tau$]); $^\top [p | p = \top \omega |_{\top \Omega}$

(5) So $^{\top t}$...

\m od-oco-b
\g do $_{\perp \varepsilon}$ -SEQ.DS $^\top$ -3SG $_{\perp \varepsilon}$
\uc (($^\top [t | \perp \varepsilon \leftarrow_{\top \omega} t$]; [$e | e \subseteq_{\top \omega} \top \tau, e \subseteq_{\top \omega} \triangleright \perp \varepsilon, \{\perp \varepsilon\} \not\subseteq_i \text{Dom } \uparrow$]) $^\top$; ...
... he $^\top$ said to the chicken $^\perp$:
("Your tail is very nice when it goes kom, kom. My tail doesn't go kom, kom.")
\m cudumac uqa mala
\g wallaby he chicken
\uc ($^\top [x | wallaby_{\top \Omega} \langle x \rangle, x \in_i \top \delta$]; [$x | chicken_{\top \Omega} \langle x \rangle, x \in_i \top \delta$];
\m ma-d-o.n "..."
\g say.to-3SG-3SG.PST
\uc [$\top \tau <_{\top \Omega} \top \varepsilon$]; [$speak.to_{\top \omega} \langle \perp \varepsilon, \top \delta, \perp \delta \rangle$]; [$\perp \varepsilon \subseteq_{\top \omega} \top \tau$])
[$p | say_{\top \omega} \langle \perp \varepsilon, \top \delta, p \rangle$]; [... $\perp \Omega$...]; $^\top [p | p = \top \omega |_{\top \Omega}$

Model for (4)–(5)

<u>Dref</u>	<u>Symbol: Description</u>	<u>Temporal-modal cnds.</u>	<u>Source</u>
$\top w_0 \in \top p_5 \subseteq (\top) p_4 \dots$	$\top w_0$: candidate for e_0 -world		$^{st}e_0$
\vdots	$\bullet \top e_0$: $\uparrow e_0$ addresses $\downarrow e_0$	$\exists t: t = \uparrow_{p_0} e_0$	$^{st}e_0$
$\bullet \bullet \bullet$	\vdots	\vdots	\vdots
\bullet	$e_{3.3}$: x_1 's tail y_3 keeps saying "kom, ..., kom"	$e_{3.3} \subseteq_{w_0} t_3, e_{3.3} \subseteq_{w_0} \triangleright e_{3.2}$	v^e -SEQ
\bullet	$e_{4.0}$: process $e_{3.3}$ begins	$e_{4.0} = \blacktriangleleft \nabla e_{3.3}$	$v_{\perp \varepsilon}^e$
$\blacksquare \blacksquare \blacksquare$	$\top t_4$: $e_{4.0}$ - <i>imm.future</i> , e_0 - <i>past</i>	$e_{4.0} \prec_{w_0} t_4 \prec_{p_3} e_0$	SEQ $^{\top}$... PST
---	$\top s_4$: state beginning with $e_{4.0}$	$e_{4.0} = \blacktriangleleft s_4$	-3SG $^{\top S}$
\bullet	$e_{4.1}$: wallaby x_2 sees $\top s_4$	$e_{4.1} \subseteq_{w_0} t_4, e_{4.1} \subseteq_{w_0} \triangleright e_{4.0}$	$v_{\perp \varepsilon}^e$ -SEQ
\bullet	$e_{4.2}$: $\top s_4$ makes x_2 jealous	$e_{4.2} \subseteq_{w_0} t_4, e_{4.2} \subseteq_{w_0} \triangleright e_{4.1}$	v^e -SEQ
$\blacksquare \blacksquare$	$\top t_5$: $e_{4.2}$ - <i>imm.future</i> , e_0 - <i>past</i>	$e_{4.2} \prec_{w_0} t_5 \prec_{p_4} e_0$	SEQ $^{\top}$... PST
\bullet	e_5 : wllb x_2 speaks to chk x_1 , says p_5 ("...")	$e_5 \subseteq_{w_0} t_5, e_5 \subseteq_{w_0} \triangleright e_{4.2}$	$v_{\perp \varepsilon}^e$ -SEQ

(6) Then $^{\top t}$...

\m Od-oco-b

\g do $_{\perp \varepsilon}$ -SEQ.DS $^{\top}$ -3SG

\uc ((((((($\top [t \perp \varepsilon \prec_{\top \omega} t]$; [$e | e \subseteq_i \top \tau, e \subseteq_{\top \omega} \triangleright \perp \varepsilon, \uparrow e \not\subseteq_i \uparrow \perp \varepsilon$])))) $^{\top}$; ...

... as they $^{\top}$ kept on going ...

\m be.bel-esin

\g go.go-SIM.DS.3DU $^{\top}$

\uc ($\top [x | x =_i \top \delta \sqcup \perp \delta]$; $\partial[2 \langle \top \delta \rangle]$; [$keep.going_{\top \omega} \langle \perp \varepsilon, \top \delta \rangle$]; [$e | e \subseteq_{\top \omega} \top \tau, e \subseteq_{\top \omega} \nabla \perp \varepsilon, \uparrow e \not\subseteq_i \uparrow \perp \varepsilon$])) $^{\top}$; ...

... (again) a breeze sprang up ...

\m fufu

\g wind

\uc ($[x | breeze_{\top \omega} \langle x \rangle]$);

\m hu-m-ei

\g come-SEQ.SS-3SG

\uc [$arrive_{\top \omega} \langle \perp \varepsilon, \perp \delta \rangle$]; [$e | e \subseteq_{\top \omega} \top \tau, e \subseteq_{\top \omega} \triangleright \perp \varepsilon, \uparrow e \subseteq_i \uparrow \perp \varepsilon$])) $^{\top}$; ...

... and took hold of the chicken's tail $^{\top}$, ...

\m mala uqa=na dodo

\g chicken he=of tail

\uc ($\top [x]; ![x | chicken_{\top \omega} \langle x \rangle, x \in_i \top \delta, tail.of_{\top \omega} \langle \top \delta, x \rangle]$);

\m hew-ece-b

\g take.hold-SEQ.DS-3SG

\uc [$take.hold.of_{\top \omega} \langle \perp \varepsilon, \perp \delta, \top \delta \rangle$]; [$e | e \subseteq_{\top \omega} \top \tau, e \subseteq_{\top \omega} \triangleright \perp \varepsilon, \uparrow e \not\subseteq_i \uparrow \perp \varepsilon$])) $^{\top}$; ...

... so that it $_{\top}$ (again) went "kom, ..., kom".

\m kom-i kom-i kom-ece-b

\g kom-vv kom-vv kom-SEQ.DS-3SG

\uc [$says.kom.kom.kom_{\top \omega} \langle \perp \varepsilon, \top \delta \rangle$]; [$e | e \subseteq_{\top \omega} \top \tau, e \subseteq_{\top \omega} \triangleright \perp \varepsilon, \uparrow e \not\subseteq_i \uparrow \perp \varepsilon$])) $^{\top}$; ...

... The wallaby^T (again) saw it^{Ts} ...

\m *cudumac uqa*
 \g wallaby he
 \uc (^T[x|wallaby_{TΩ}⟨x⟩, x ∈_i T[⇒]δ]);

\m **f-*ece*-b**
 \g see-3SG^{Ts}.SEQ.DS-3SG
 \uc (^T[s|[▲]s =_i ⊥'ε]; [see_{Tω}⟨⊥ε, Tδ, Tσ⟩]; [e| e ⊆_{Tω} Tτ, e ⊆_{Tω} ▷⊥ε, {e} ⊈_i Dom ↑]))^T;

... and it_{Tσ} (again) made him_T jealous ...

\m *gale _-d-*oco*-b*
 \g jealousy tv-3SG-SEQ.DS-3SG_{⊥ε}
 \uc [*make.jalous*_{Tω}⟨⊥ε, Tσ, Tδ⟩]; [e| e ⊆_{Tω} Tτ, ⊥ε ⊆_{Tω} ▷e, {⊥ε} ⊈_i Dom ↑]))^T;

... when he_T saw the fur⁺ on his own tail.

\m *uqa dodo uqa=na hohu-g*
 \g it fur he=on tail-3SG
 \uc (∂[1⟨Tδ⟩]; [x|fur_{Tω}⟨x⟩]; ![x|tail.of_{TΩ}⟨x, Tδ⟩, on_{Tω}⟨⊥δ, x⟩];

\m **f-e.n**
 \g see-3SG.PST
 \uc [Tτ <_{TΩ} Tε]; [see_{Tω}⟨⊥ε, Tδ, ⊥δ⟩]; [⊥ε ⊆_{Tω} Tτ)]; ^T[p|p = Tω||_{TΩ}]

(7) **His own fur^T** (*lit.* This^T) was stiff.

\m *eu uqa tinag taw-e.n*
 \g this it rigid stand^s-3SG.PST
 \uc (^T[x|x =_i ⊥δ]; [Tτ <_{TΩ} Tε]; [s|be.stiff_{Tω}⟨s, Tδ⟩, Tτ ⊆_{Tω} s]; ^T[p|p = Tω||_{TΩ}]

Model for (6)–(7)

<i>Dref</i>	<i>Symbol: Description</i>	<i>Temporal-modal cnds.</i>	<i>Source</i>
^T w ₀ ∈ ^T p ₇ ⊆ (^T)p ₆ ...	^T w ₀ : candidate for e ₀ -world		st e ₀
•	• ^T e ₀ : ↑e ₀ addresses ↓e ₀	∃t: t = ∅ _{p0} e ₀	st e ₀
⋮	⋮	⋮	⋮
•	e ₅ : wllb x ₂ speaks to chk x ₁ , says p ₅ (“...”)	e ₅ ⊆ _{w0} t ₅ , e ₅ ⊆ _{w0} ▷e _{4.2}	v _{⊥ε} -SEQ
■ ■ ■	^T t ₆ : e ₅ - <i>imm.future</i> , e ₀ - <i>past</i>	e ₅ < _{w0} t ₆ < _{p5} e ₀	SEQ ^T ... PST
• • •	e _{6.1} : x ₁ ⊏ x ₂ keep going	e _{6.1} ⊆ _{w0} t ₆ , e _{6.1} ⊆ _{w0} ▷e ₅	v _{⊥ε} -SEQ
•	e _{6.2} : breeze x ₆ arrives	e _{6.2} ⊆ _{w0} t ₆ , e _{6.2} ⊆ _{w0} ▽e _{6.1}	v ^e -SIM
•	e _{6.3} : breeze x ₆ takes hold of chicken x ₁ 's tail y ₃	e _{6.3} ⊆ _{w0} t ₆ , e _{6.3} ⊆ _{w0} ▷e _{6.2}	v ^e -SEQ
•	e _{6.4} : x ₁ 's tail y ₃ says “kom, ..., kom”	e _{6.4} ⊆ _{w0} t ₆ , e _{6.4} ⊆ _{w0} ▷e _{6.3}	v ^e -SEQ
—	^T s ₆ : state beginning w. e _{6.4}	[▲] s ₆ = e _{6.4}	-3SG ^{Ts}
•	e _{6.5} : wllb x ₂ sees ^T s ₆	e _{6.5} ⊆ _{w0} t ₆ , e _{6.5} ⊆ _{w0} ▷e _{6.4}	v ^e -SEQ
•	e _{6.6} : ^T s ₆ makes x ₂ jealous	e _{6.6} ⊆ _{w0} t ₆ , e _{6.6} ⊆ _{w0} ▷e _{6.5}	v ^e -SEQ
•	e _{6.7} : wllb x ₂ sees fur x ₆ on own tail	e _{6.7} ⊆ _{w0} t ₆ , e _{6.7} ⊆ _{w0} ▷e _{6.7}	v ^e -SEQ
—	s ₇ : x ₂ 's fur x ₆ is stiff	t ₆ ⊆ _{w0} s ₇	v ^s -PST

(8) When^{Tt} he saw_{⊥ε} that_{Tσ} ...

\m Od-i od-oco-b
 \g do_{⊥ε}^e-VV do-SEQ.DS^T-3SG
 \uc (((^T[t ⊥ε <_{Tω} t]; [e| e =_i ⊥'ε]; [e| e ⊆_{Tω} Tτ, e ⊆_{Tω} ▷⊥ε, {e} ⊄_i Dom ↑])^T; ...

... it_{Tσ} made the wallaby^T furious (*lit.* his liver came up) ...

\m cudumac

\g wallaby

\uc (^T[x| wallaby_{TΩ}⟨x⟩, x ∈_i T[⇒]δ];

\m gema-g b-ece-b

\g liver-3SG come.up-SEQ.DS-3SG_{⊥σ}

\uc [*make.furious*_{Tω}⟨e, Tσ, Tδ⟩]; [e| e ⊆_{Tω} Tτ, e ⊆_{Tω} ▷⊥ε, {⊥ε} ⊄_i Dom ↑])^T; ...

... and with his_T own tail he_T wiped the resin off the canoe[⊥].

\m uqa hohu-g=na

\g he tail-3SG=INS

\uc (∂[1⟨Tδ⟩]; ![e| e ⊆_i ⊥ε, *tail.of*_{TΩ}⟨↓e, Tδ⟩, *use*_{Tω}⟨e, ↑e, ↓e⟩];

\m wag

\g canoe

\uc ([x| canoe_{TΩ}⟨x⟩, x ∈ ⊥[⇒]δ];

\m baial cagah-e.n

\g resin remove-3SG.PST

\uc [Tτ <_{TΩ} Tε]; [*remove.resin.from*_{Tω}⟨⊥ε, Tδ, ⊥δ⟩, ⊥ε ⊆_{Tω} Tτ]); ^T[p| p = Tω||_{TΩ}]

(9) Then^{Tt} ...

\m od-oco-b

\g do-SEQ.DS^T-3SG

\uc (((^T[t ⊥ε <_{Tω} t]; [e| e ⊆_i Tτ, e ⊆_{Tω} ▷⊥ε, ↑e ⊄_i ↑⊥ε])^T; ...

... sea water began to leak in continuously, with bubbling noises.

\m macas

\g sea.water

\uc (^T[x| sea.water_{TΩ}⟨x⟩];

\m lalum dunuh l-i l-i bil-i buhu.baha-i-e.n

\g leak inside go-VV go-VV sit-VV bubble.bubble-VV-3SG.PST

\uc [Tτ <_{TΩ} Tε]; [*keep.leaking.into*_{Tω}⟨⊥ε, Tδ, ⊥δ⟩, *keep.bubbling*_{Tω}⟨⊥ε, Tδ⟩]; [⊥ε ⊆_{Tω} Tτ]); ^T[p| p = Tω||_{TΩ}]

(10) Then^{Tt} (= when the water started leaking in) ...

\m Od-oco-b

\g do^e-SEQ.DS^T-3SG

\uc [e| e =_i ◀[∇]⊥ε]; (((^T[t ⊥ε <_{Tω} t]; [e| e ⊆_{Tω} Tτ, e ⊆_{Tω} ▷⊥ε, ↑e ⊄_i ↑⊥ε])^T; ...

... the chicken^{T_x} said to the wallaby^x:
 (“My friend, what have you done? We’re going to perish. Don’t you see?”)

\m mala uqa cudumac
 \g chicken he wallaby
 \uc (^T[*x*] *chicken*_{T_Ω}⟨*x*⟩, *x* ∈_{*i*} ⊥[⇒]δ]; [*x*] *wallaby*_{T_Ω}⟨*x*⟩, *x* ∈_{*i*} T[⇒]δ];

\m ma-d-o.n “...”
 \g say.to-3SG-3SG.PST
 \uc [^Tτ <_{T_Ω} Tε]; [*say*.to_{T_ω}⟨⊥ε, Tδ, ⊥δ⟩]; [⊥ε ⊆_{T_ω} Tτ];
 [*p*] *say*_{T_ω}⟨⊥ε, Tδ, *p*⟩; [... ⊥Ω ...]); ^T[*p*] *p* = Tω||TΩ]

(11) And then^{T_t} ...

\m od-i ma-d-um-ei
 \g do-VV say.to-3SG-SEQ.SS^T-3SG
 \uc [*spk*.to⟨⊥ε, Tδ, ⊥δ⟩]; ((^T[*t*] ⊥ε <_{T_ω} *t*]; [*e*] *e* ⊆_{T_ω} Tτ, *e* ⊆_{T_ω} ▷⊥ε, ↑*e* ∈_{*i*} ↑⊥ε])^T;

... he_T (went on to) say:
 (“My friend, it’s you I’m talking about. As for me, I’m going to leave you.”)

\m ma-d-o.n “...”
 \g say.to-3SG-3SG.PST
 \uc [^Tτ <_{T_Ω} Tε]; [*say*.to_{T_ω}⟨⊥ε, Tδ, ⊥δ⟩]; [⊥ε ⊆_{T_ω} Tτ];
 [*p*] *say*_{T_ω}⟨⊥ε, Tδ, *p*⟩; [... ⊥Ω ...]); ^T[*p*] *p* = Tω||TΩ]

Model for (8)–(11)

<i>Dref</i>	<i>Symbol: Description</i>	<i>Temporal-modal cnds.</i>	<i>Source</i>
^T w ₀ ∈ ^T p ₁₁ ⊆ (^T)p ₁₀ ...	^T w ₀ : candidate for e ₀ -world		st e ₀
•	• ^T e ₀ : ↑e ₀ addresses ↓e ₀	∃ <i>t</i> : <i>t</i> = ∅ _{p₀} e ₀	st e ₀
∴	∴	∴	∴
•	e _{6.6} : ^T s ₆ makes x ₂ jealous	e _{6.6} ⊆ _{w₀} t ₆ , e _{6.6} ⊆ _{w₀} ▷e _{6.5}	v ^e -SEQ
•	e _{6.7} : wllb x ₂ sees fur x ₆ on own tail	e _{6.7} ⊆ _{w₀} t ₆ , e _{6.6} ⊆ _{w₀} ▷e _{6.7}	v ^e -SEQ
•	s ₇ : x ₂ ’s fur x ₆ is stiff	t ₆ ⊆ _{w₀} s ₇	v ^s -PST
•	e _{8.0} : ^T s ₆ makes x ₂ jealous	e _{8.0} = e _{6.6}	v _{⊥ε} ^e
■ ■	^T t ₈ : e _{8.0} - <i>imm.future</i> , e ₀ - <i>past</i>	e _{8.0} < _{w₀} t ₈ < _{p₇} e ₀	SEQ ^T ... PST
•	e _{8.1} : ^T s ₆ makes x ₂ furious	e _{8.1} ⊆ _{w₀} t ₈ , e _{8.1} ⊆ _{w₀} ▷e _{8.0}	v ^e -SEQ
•	e _{8.2} : x ₂ , using own tail, wipe resin off canoe y ₁	e _{8.2} ⊆ _{w₀} t ₈ , e _{8.2} ⊆ _{w₀} ▷e _{8.1}	v ^e -SEQ
■ ■	^T t ₉ : e _{8.2} - <i>imm.future</i> , e ₀ - <i>past</i>	e _{8.2} < _{w₀} t ₉ < _{p₈} e ₀	SEQ ^T ... PST
• •	e ₉ : water leaks into canoe y ₁	e ₉ ⊆ _{w₀} t ₉ , e ₉ ⊆ _{w₀} ▷e _{8.2}	v ^e -SEQ
•	e _{10.0} : process e ₁ begins	e _{10.0} = ◀ _∇ e ₉	v _{⊥ε} ^e
■ ■	^T t ₁₀ : e _{10.0} - <i>imm.fut</i> , e ₀ - <i>past</i>	e _{10.0} < _{w₀} t ₁₀ < _{p₉} e ₀	SEQ ^T ... PST
•	e _{10.1} : chk x ₁ speaks to wllb x ₂ says p ₁₀ (“What hv u done?”)	e _{10.1} ⊆ _{w₀} t ₁₀ , e _{10.1} ⊆ _{w₀} ▷e _{10.0}	v ^e -SEQ
■ ■	^T t ₁₁ : e _{10.1} - <i>imm.fut</i> , e ₀ - <i>past</i>	e _{10.1} < _{w₀} t ₁₁ < _{p₁₀} e ₀	SEQ ^T ... PST
•	e ₁₁ : chk x ₁ speaks again to x ₂ says p ₁₁ (“I’m leaving”)	e ₁₁ ⊆ _{w₀} t ₁₁ , e ₁₁ ⊆ _{w₀} ▷e _{10.1}	v ^e -SEQ

(12) And then^{Tt} ...

\m od-i-m-ei
 \g do-VV-SEQ.SS^T-3SG
 \uc ((^T[t] ⊥ε -<_{Tω} t]; [e| e ⊆_{Tω} Tτ, e ⊆_{Tω} [▷]⊥ε, ↑e ⊆_i ↑⊥ε])^T; ...

... he_T flew up onto the mast.

\m uqa

\g he

\uc (∂[1<Tδ]);

\m fulul-i t-i failiel=na bil-e.n

\g fly-VV go.up-VV mast=on sit-3SG.PST

\uc [Tτ <_{TΩ} Tε]; [fly_{Tω}<⊥ε, Tδ>, go.up_{Tω}<⊥ε, Tδ>, sit.on.mast_{Tω}<(▲[∇]⊥ε)_{Tω}, Tδ>];
 [⊥ε ⊆_{Tω} Tτ]); ^T[p| p = Tω||_{TΩ}]

(13) From his perch on the mast^{Tt} ...

\m failiel=na bil-im-ei

\g mast=on sit_{⊥ε}^e-SEQ.SS^T-3SG

\uc [e| sit.on.mast_{Tω}<e, Tδ>, e = (▲[∇]⊥ε)_{Tω}];
 ((^T[t] ⊥ε -<_{Tω} t]; [e| e ⊆_{Tω} Tτ, e ⊆_{Tω} [▷]⊥ε, ↑e ⊆_i ↑⊥ε])^T; ...

... he_T said to him_⊥:

(“My friend, I am leaving you. You can perish.”)

\m uqa

\g he

\uc ∂[1<Tδ]);

\t, \m ma-d-o.n “...”

\g say.to-3SG-3SG.PST

\uc [Tτ <_{TΩ} Tε]; [speak.to_{Tω}<⊥ε, Tδ, ⊥δ>]; [⊥ε ⊆_{Tω} Tτ];
 [p| say_{Tω}<⊥ε, Tδ, p]; [... ⊥Ω ...]); ^T[p| p = Tω||_{TΩ}]

(14) The chicken then^{Tt} flew away (= after this speech) and ...

\m mala uqa

\g chicken he

\uc ^T[x| chicken_{TΩ}<x>, x ∈_i T[⇒]δ];

\m fulul-im-ei

\g fly^e-SEQ.SS^T-3SG

\uc [e| fly.away_{Tω}<e, Tδ>, e =_i (▲[∇]⊥ε)_{Tω}];
 ((^T[t] ⊥ε -<_{Tω} t]; [e| e ⊆_{Tω} Tτ, e ⊆_{Tω} [▷]⊥ε, ↑e ⊆_i ↑⊥ε])^T; ...

... went to Sel.

\m Sel nu-e.n

\g Sel go.to-3SG.PST

\uc [Tτ <_{TΩ} Tε]; [go.to_{Tω}<⊥ε, Tδ, Sel>, ⊥ε ⊆_{Tω} Tτ]); ^T[p| p = Tω||_{TΩ}]

Model for (12)–(14)

<i>Dref</i>	<i>Symbol: Description</i>	<i>Temporal-modal cnds.</i>	<i>Source</i>
$\top w_0 \in \top p_{14} \subseteq (\top) p_{13} \dots$	$\top w_0$: candidate for e_0 -world		$^{st}e_0$
•	$\top e_0$: $\uparrow e_0$ addresses $\downarrow e_0$	$\exists t: t = \emptyset_{p_0} e_0$	$^{st}e_0$
:	:	:	:
•	e_{11} : chk x_1 speaks again, says p_{11} (“I’m gonna lv”)	$e_{11} \subseteq_{w_0} t_{11}, e_{11} \subseteq_{w_0} \triangleright e_{10.1}$	v^e -SEQ
■ ■	$\top t_{12}$: e_{11} - <i>imm.fut</i> , e_0 - <i>past</i>	$e_{11} \prec_{w_0} t_{12} \prec_{p_{11}} e_0$	SEQ $^\top$... PST
• •	e_{12} : x_1 flies up onto mast y_{12}	$e_{12} \subseteq_{w_0} t_{12}, e_{12} \subseteq_{w_0} \triangleright e_{11}$	$v_{\perp \varepsilon}^e$ -SEQ
•	$e_{13.0}$: x_1 lands on mast y_{12}	$e_{13.0} = (\blacktriangleleft^\nabla e_{12})_{w_0}$	$v_{\perp \varepsilon}^e$
■ ■	$\top t_{13}$: $e_{13.0}$ - <i>imm.fut</i> , e_0 - <i>past</i>	$e_{13.0} \prec_{w_0} t_{13} \prec_{p_{12}} e_0$	SEQ $^\top$... PST
• •	$e_{13.1}$: chk x_1 speaks to willb x_2 says p_{13} (“I’m leaving.”)	$e_{13.1} \subseteq_{w_0} t_{13}, e_{13.1} \subseteq_{w_0} \triangleright e_{13.0}$	v^e -SEQ
•	$e_{14.0}$: chk x_1 flies away	$e_{14.0} = (\blacktriangleleft^\nabla e_{13.1})_{w_0}$	$v_{\perp \varepsilon}^e$
■ ■	$\top t_{14}$: $e_{14.0}$ - <i>imm.fut</i> , e_0 - <i>past</i>	$e_{14.0} \prec_{w_0} t_{14} \prec_{p_{13}} e_0$	SEQ $^\top$... PST
•	$e_{14.1}$: chk x_1 goes to Sel	$e_{14.1} \subseteq_{w_0} t_{14}, e_{14.1} \subseteq_{w_0} \triangleright e_{14.0}$	v^e -SEQ

(15) Then $^\top$...

\m od-oco-b

\g do $_{\perp \varepsilon}$ -SEQ.DS $^\top$ -3SG

\uc (((((((([$e | e =_i \perp \varepsilon$]; $^\top [t | \perp \varepsilon \prec_{\top \omega} t$]; [$e | e \subseteq_{\top \omega} \top \tau, e \subseteq_{\top \omega} \triangleright \perp \varepsilon, \uparrow e \not\subseteq_i \uparrow \perp \varepsilon$])))) $^\top$; ...

... while the wallaby $^\top$ was (still) sitting there dazed, ...

\m cudumac uqa

\g wallaby he

\uc ($^\top [x | wallaby_{\top \omega} \langle x \rangle, x \in_i \perp \delta$];

\m dadan-i bi.bil-en

\g dazed-vv sit.sit-SIM.DS.3SG

\uc [$dazed_{\top \omega} \langle \nabla \perp \varepsilon, \top \delta \rangle, sitting_{\top \omega} \langle \nabla \perp \varepsilon, \top \delta \rangle$]; [$e | e \subseteq_{\top \omega} \top \tau, e \subseteq_{\top \omega} \nabla \perp \varepsilon, \uparrow e \not\subseteq_i \uparrow \perp \varepsilon$]] $^\top$;

... out of the sea there appeared a turtle $^\top$, ...

\m macas=na=dec gubai

\g sea=in=from turtle

\uc [$in.sea \langle \blacktriangleleft \perp \varepsilon, \uparrow \perp \varepsilon \rangle$]; [$x | turtle_{\top \omega} \langle x \rangle$];

\m h-um-ei

\g come-SEQ.SS-3SG

\uc [$come.up_{\top \omega} \langle \perp \varepsilon, \perp \delta \rangle$]; [$e | e \subseteq_{\top \omega} \top \tau, e \subseteq_{\top \omega} \triangleright \perp \varepsilon, \uparrow e \in_i \uparrow \perp \varepsilon$]] $^\top$; ...

... picked him $^\top$ up on his $^\top$ back and carried him $^\top$ to the shore, whereupon ...

\m cudumac

gahi-d-u

ah-u

\g wallaby

carry.on.back-3SG-VV

take-VV

\uc ($\partial [willb_{\top \omega} \langle \top \delta \rangle$]; [$e | \perp \varepsilon = \blacktriangleleft e, carry.on.bk_{\top \omega} \langle e, \perp \delta, \top \delta \rangle, take_{\top \omega} \langle \blacktriangleleft^\nabla e, \perp \delta, \top \delta \rangle$];

\m macas lan=na m-ud-ec-e-be

\g sea shore=on put-3SG-SEQ.DS-3SG

\uc [$put.on.sea.shore_{\top \omega} \langle \blacktriangleleft^\nabla e, \perp \delta, \top \delta \rangle$]; [$e | e \subseteq_{\top \omega} \top \tau, e \subseteq_{\top \omega} \triangleright \perp \varepsilon, \uparrow e \not\subseteq_i \uparrow \perp \varepsilon$]] $^\top$; ...

... the_T wallaby (*lit.* he_T) got up and ...
 \m uqa caj-i-m-ei
 \g he arise-VV-SEQ.SS-3SG
 \uc ($\partial[\mathbf{1}\langle T\delta \rangle]$; [*get.up*_{T ω} $\langle \perp\varepsilon, T\delta \rangle$]; [$e \sqsubseteq_{T\omega} T\tau, e \sqsubseteq_{T\omega} \triangleright \perp\varepsilon, \uparrow e \sqsubseteq_i \uparrow \perp\varepsilon$]))^T; ...
 ... went back down to the forest.
 \m n-u bahu nu-e.n
 \g go.down-VV forest go.to-3SG.PST
 \uc [$T\tau <_{T\Omega} T\varepsilon$]; [*go.down.to.forest*_{T ω} $\langle \perp\varepsilon, T\delta \rangle, \perp\varepsilon \sqsubseteq_{T\omega} T\tau$]]; ^T[$p \mid p = T\omega \parallel_{T\Omega}$]

Model for (15)

<u>Dref</u>	<u>Symbol: Description</u>	<u>Temporal-modal cnds.</u>	<u>Source</u>
^T w ₀ ∈ ^T p ₁₅ ⊆ (^T)p ₁₄ ...	^T w ₀ : candidate for e ₀ -world		st e ₀
•	^T e ₀ : ↑e ₀ addresses ↓e ₀	∃t: t = \emptyset_{p_0} e ₀	st e ₀
∴	∴	∴	∴
•	e _{15.0} : chk x ₁ flies away	e _{15.0} = e _{14.0}	$v_{\perp\varepsilon}^e$
■■■■■■■	^T t ₁₅ : e _{15.0} - <i>imm.fut</i> , e ₀ - <i>past</i>	e _{15.0} \prec_{w_0} t ₁₅ $\prec_{p_{14}}$ e ₀	SEQ ^T ... PST
••	e _{15.1} : wllb x ₂ sits dazed	e _{15.1} ⊆ _{w₀} t ₁₅ , e _{15.1} ⊆ _{w₀} \triangleright e _{15.0}	v ^e -SEQ
•	e _{15.2} : turtle x ₃ comes out of sea	e _{15.2} ⊆ _{w₀} t ₁₅ , e _{15.2} ⊆ _{w₀} \triangleright e _{15.1}	v ^e -SIM
•	e _{15.3} : x ₃ carries wllb x ₂ ashore	e _{15.3} ⊆ _{w₀} t ₁₅ , e _{15.3} ⊆ _{w₀} \triangleright e _{15.2}	v ^e -SEQ
•	e _{15.4} : wllb x ₂ gets up	e _{15.4} ⊆ _{w₀} t ₁₅ , e _{15.4} ⊆ _{w₀} \triangleright e _{15.3}	v ^e -SEQ
•	e _{15.5} : x ₂ goes dwn to forest	e _{15.5} ⊆ _{w₀} t ₁₅ , e _{15.5} ⊆ _{w₀} \triangleright e _{15.4}	v ^e -SEQ

(16) That's how the wallaby and the chicken made a sea voyage.

(17) That's all.

[2] WHAT I DID YESTERDAY

(1) On Friday^{TS} I ...

\m lja Fonde=na
 \g 1SG Friday=on
 \uc $\partial[1 \langle \uparrow \top \varepsilon \rangle]; \top[s | s \subseteq_{\top\omega} \text{fri}^{bfr} \langle \vartheta_{\top\Omega} \top \varepsilon \rangle];$
 ... began to feel unwell (*lit.* sth. began to make me sick)
 \m hag sanan m-it-e.n
 \g sickness start tv-1SG-3SG.PST^T
 \uc $\top[t | t <_{\top\Omega} \top \varepsilon]; [e | e \subseteq_{\top\omega} \top \tau]; ![e | e = \blacktriangleright^{\nabla} \perp \varepsilon, \text{make.sick}_{\top\omega} \langle e, \top \sigma, \uparrow \top \varepsilon \rangle];$
 $\top[p | p = \top \omega ||_{\top\Omega}]$

(2) My whole body^T ...

\m Dewe-ni
 \g body-1SG
 \uc $\top[x | \text{body.of}_{\top\Omega} \langle x, \uparrow \top \varepsilon \rangle];$
 ... was aching.
 \m dain t-e.na
 \g pain 1SG-3SG.PRS_⊥^T (NB: $\perp \varepsilon$ -rel. present)
 \uc $\top[t | t =_i \vartheta_{\top\Omega} \perp \varepsilon]; [s | \text{in.pain}_{\top\omega} \langle s, \top \delta \rangle, \top \tau \subseteq_{\top\omega} s]; \top[p | p = \top \omega ||_{\top\Omega}]$

(3) [A splitting headache and a backache]^T ...

\m llo-mi q-it-ec=ca
 \g head-1SG kill-1SG-V\N=and
 \uc $[x | \text{head.of}_{\top\Omega} \langle x, \uparrow \top \varepsilon \rangle]; \top[s | \text{ache}_{\top\omega} \langle s, \perp \delta, \uparrow \top \varepsilon \rangle, s \sqsubseteq_i \perp \sigma];$
 \m gogodo-mi dain t-ec=ca
 \g back-1SG pain 1SG-V\N=and^{TS}
 \uc $[x | \text{back.of}_{\top\Omega} \langle x, \uparrow \top \varepsilon \rangle]; \top[s | \text{in.pain}_{\top\omega} \langle s, \perp \delta, \uparrow \top \varepsilon \rangle, s \sqsubseteq_i \perp \sigma]; \top[s | s =_i \top \sigma \sqcup \top' \sigma];$
 ... began all of a sudden.
 \m cal-i h-o.n
 \g arise-VV come-3SG_{TS}.PST
 \uc $[\top \tau <_{\top\Omega} \top \varepsilon]; [e | e =_i \blacktriangleright \top \sigma, e \subseteq_{\top\omega} \top \tau]; \top[p | p = \top \omega ||_{\top\Omega}]$

Model for (1)–(3)

<i>Dref</i>	<i>Symbol: Description</i>	<i>Temporal-modal cnds.</i>	<i>Source</i>
$\top w_0 \in \top p_3 \subseteq (\top) p_2 \dots$	$\top w_0$: candidate for e_0 -world		$^{st}e_0$
—	• $\top e_0$: $\uparrow e_0$ addresses $\downarrow e_0$	$\exists t: t = \vartheta_{p_0} e_0$	$^{st}e_0$
■ ■	$\top s_1$: cause of illness	$s_1 \subseteq_{w_0} \text{t}_{\text{fri.bfr.e0}}$	Fri=on
•	$\top t_1$: e_0 -past	$t_1 <_{p_0} e_0$	PST ^T
■	e_1 : s_1 starts to make $\uparrow e_0$ sick	$e_1 \subseteq_{w_0} t_1$	v^e -TNS
—	$\top t_2$: e_1 -instant, e_0 -past	$\vartheta_{p_1} e_1 = t_2 <_{p_0} e_0$	PRS _⊥ ^T , PST
—	s_2 : $\uparrow e_0$'s body is in pain	$t_2 \subseteq_{w_0} s_2$	v^s -TNS
—	$\top s_{3.1}$: $\uparrow e_0$'s head aches badly	$s_{3.1} \sqsubseteq_{\sigma} s_2$	v^s -TNS
—	$\top s_{3.2}$: $\uparrow e_0$'s back is in pain	$s_{3.2} \sqsubseteq_{\sigma} s_2$	v^s -TNS
—	$\top s_{3.3}$: $\uparrow e_0$'s head & back aches	$s_{3.3} = s_{3.1} \sqcup_{\sigma} s_{3.2}$	=and ^{TS}
•	e_3 : $s_{3.3}$ -onset	$e_3 = \blacktriangleright s_{3.3}, e_3 \subseteq_{w_0} t_2$	v^e -PST

(4) **So^{Tt} ...**
 \m Od-oco-b
 \g do_{⊥ε}-SEQ.DS^T-3SG_{Tσ}
 \uc ((^T[t ⊥ε <_{Tω} t]; [e| e ⊆_{Tω} t, e ⊆_{Tω} ⊃ ⊥ε, {⊥ε} ⊈_i Dom ↑])^T; ...
 ... for two nights I lay sick.
 \m tu lecis hag nij-e.m
 \g night two sickness lie.down-1SG.PST
 \uc [Tτ <_{TΩ} Tε]; [lie.sick.2.nights_{Tω}⟨[∇]⊥ε, ↑Tε⟩, ⊥ε ⊆_{Tω} Tτ)]; ^T[p| p = Tω||_{TΩ}]

(5) **Therefore^{Ts}, yesterday^{Tt} ...**
 \m Eu=nu cum
 \g that_{⊥ε}=for^{Ts} yesterday^{Tt}
 \uc ^T[s| s ⊆_↑ ⊃[▲]⊥ε]; ^T[t| t ⊆_i day^{bfr}⟨g_{TΩ}Tε⟩]; ...
 ... I went to Mrs. Fensky[⊥] so that she_⊥ would take a look at me.
 \m ono Mrs. Fensky=ca
 \g there Mrs. Fensky=with
 \uc ([x| x =_i Mrs. Fensky]; [w| be.with_w⟨[▷]([▲]Tσ)_w, ↑Tσ, ⊥δ⟩];
 \m mec-it-igi-an=nu
 \g see-1SG-3SG-FUT[⊥]=for_{Tσ}^p
 \uc [p| intend_{Tω}⟨Tσ, ↑Tσ, p⟩];
 !([t| Tσ <_{Tω} t]; [e| see_{⊥ω}⟨e, ⊥δ, ↑Tε⟩, e ⊆_{⊥ω} ⊥τ, g_{⊥ω} e =_i g_{⊥ω} ([▲]Tσ)_{⊥ω}];
 [OPT{ TΩ, ⊥Ω||_{Tω, Tσ} } ⊆_I ⊥ω||_{Tσ}]);
 \m nu-ig-an
 \g go.to-1SG-YST.P
 \uc [Tτ <_{TΩ} Tε, Tτ ⊆_i day^{bfr}⟨g_{TΩ}Tε⟩]; [e| go.to_{Tω}⟨e, ↑Tε, ⊥δ⟩, e ⊆_{Tω} Tτ,
 Tσ =_i [∇]e]; ^T[p| p = Tω||_{TΩ}]

Model for (4)–(5)

<u>Dref</u>	<u>Symbol: Description</u>	<u>Temporal-modal cnds.</u>	<u>Source</u>
^T w ₀ ∈ ^T p ₅ ⊆ (^T)p ₄ ...	^T w ₀ : candidate for e ₀ -world		st e ₀
⋮	• ^T e ₀ : ↑e ₀ addresses ↓e ₀	∃t: t = [∅] p ₀ e ₀	st e ₀
⋮	⋮	⋮	⋮
_____...	^T s _{3.3} : ↑e ₀ 's head & back aches	s _{3.3} = s _{3.1} ⊔ _σ s _{3.2}	=and ^{Ts}
•	e ₃ : s _{3.3} -onset	e ₃ = [▲] s _{3.3} , e ₃ ⊆ _{w₀} t ₂	v ^e -PST
■ ■	^T t ₄ : e ₃ -imm.fut	e ₃ <_{w ₀ } t ₄ <_{p ₄ } e ₀	SEQ ^T ... PST
• •	e ₄ : ↑e ₀ lies sick for 2 nights	e ₄ ⊆ _{w₀} t ₄ , e ₄ ⊆ _{w₀} [▷] e ₃	v ^e -SEQ
_____	^T s ₅ : part of [▲] e ₄ -conseq. state	s ₅ ⊆ _↑ [▷] [▲] e ₄	that _{⊥ε} -for ^{Ts}
	↑e ₀ intends Q ₅		
■ ■ ■	^T t ₅ : e ₀ -past in e ₀ -yst	t ₅ <_{p ₀ } e ₀ , t ₅ ⊆ t _{yst.e₀}	yst ^T ... YST.P
• • •	e _{5.2} : ↑e ₀ goes to Mrs. F	e _{5.2} ⊆ _{w₀} t ₅	v ^e -YST.P
~~~~~			
w ₅ ∈ OPT( ^T p ₄ , Q ₅ )	w ₅ : Q ₅ -optimal p ₄ -world		=for
!(	■ t' ₅ : s ₅ -fut	s ₅ <_{w ₀ } t' ₅	FUT [⊥]
	• e' ₅ : Mrs. F sees ↑s ₅ (= ↑e ₀ )	e' ₅ ⊆ _{w₅} t' ₅ ,	v ^e -FUT
	— [▷] ( [▲] s ₅ ) _{w₅} : ↑s ₅ is with Mrs. F	g _{w₅} e' ₅ = g _{w₅} ( [▲] s ₅ ) _{w₅}	=for)

(6) **I went down to the main road and waited for Malolo^T's car[↓], and^T ...**

\m ija Malolo uqa=na ka  
 \g 1SG Malolo 3SG=of car  
 \uc (((((∂[↑Tε]; ^T[x| x =_i malolo]; [x| car.of_{TΩ}⟨x, Tδ⟩]; ...

\m jic ana-g=na ono n-u sumu-d-i  
 \g road mother-3SG=loc there go.down_{↓ε}-VV wait.for-3SG-VV  
 \uc [e| e ⊆_i ⊥ε, on.main.rd_{Tω}⟨[∇]e, ↑Tε⟩, go.dwn⟨[▲]e, ↑Tε⟩, wait.for_{Tω}⟨[∇]e, ↑Tε, ⊥δ⟩]

\m bi.bil-igin  
 \g sit.sit-SIM.DS^T.1SG  
 \uc ^T[t| ⊥ε ⊆_{Tω} t]; [e| e ⊆_{Tω} Tτ, e ⊆_{Tω} [∇]⊥ε, ↑e ⊈_i ↑⊥ε]

... when it_↓ came down ...

\m n-**ece**-b  
 \g come.down-SEQ.DS-3SG  
 \uc ([come.down_{Tω}⟨⊥ε, ⊥δ⟩]; [e| e ⊆_{Tω} Tτ, e ⊆_{Tω} [▷]⊥ε, ↑e ⊈_i ↑⊥ε])) ^T; ...

... I climbed in_↓ ...

\m tob-**oco**-min  
 \g climb.up-SEQ.DS-1SG  
 \uc ([climb.into_{Tω}⟨⊥ε, ↑Tε, ⊥δ⟩]; [e| e ⊆_{Tω} Tτ, e ⊆_{Tω} [▷]⊥ε, ↑e ⊈_i ↑⊥ε])) ^T; ...

... and off we (= me + Malolo) went.

\m bel-ow-an  
 \g go.away-1DU^T-YST.P  
 \uc ([Tτ <_{TΩ} Tε, Tτ ⊆_i day^{bfr}⟨g_{TΩ}Tε⟩]; ^T[x| x =_i ↑Tε ⊔ Tδ]; [go.away_{Tω}⟨⊥ε, Tδ⟩, ⊥ε ⊆_{Tω} Tτ]); ^T[p| p = Tω||_{TΩ}]

Model for (6)

<u>Dref</u>	<u>Symbol: Description</u>	<u>Temporal-modal cnds.</u>	<u>Source</u>
^T w ₀ ∈ ^T p ₆ ⊆ ( ^T )p ₅ ...	^T w ₀ : candidate for e ₀ -world		st e ₀
•	^T e ₀ : ↑e ₀ addresses ↓e ₀	∃t: t = [∅] p ₀ e ₀	st e ₀
:	:	:	:
■■■■■	^T t _{5.1} : e ₀ - <b>past in</b> e ₀ -yst.	t _{5.1} < _{p0} e ₀ , t _{5.1} ⊆ t _{yst.e0}	yst ^T ... YST.P
●●●●	e _{5.2} : ↑e ₀ goes to Mrs. F	e _{5.2} ⊆ _{w0} t _{5.1}	v ^e -YST.P
●●	e _{6.0} : ↑e ₀ [goes down &] waits by main rd. for car γ ₆ of M.	e _{6.0} ⊆ _e e _{5.2}	v ^e _{↓ε} -VV v-VV
■■■■■	^T t ₆ : e _{6.0} - <b>now in</b> e ₀ -yst.	e _{6.0} ⊆ _{w0} t ₆	v.V-SIM ^T ...
•	e _{6.1} : M.'s car γ ₆ comes down	t ₆ < _{p0} e ₀ , t ₆ ⊆ t _{yst.e0}	... YST.P
•	e _{6.2} : ↑e ₀ climbs into M.'s car γ ₆	e _{6.1} ⊆ _{w0} t ₆ , e _{6.1} ⊆ _{w0} [∇] e _{6.0}	v.V-SIM
•	e _{6.3} : ↑e ₀ ⊔ M. go away	e _{6.2} ⊆ _{w0} t ₆ , e _{6.2} ⊆ _{w0} [▷] e _{6.1}	v ^e -SEQ
		e _{6.3} ⊆ _{w0} t ₆ , e _{6.3} ⊆ _{w0} [▷] e _{6.2}	v ^e -SEQ

- (7) **As soon as we arrived^T ...**
- \m Bel-im-eu  
 \g go.away_{⊥ε}^e-SEQ.SS^T-1DU  
 \uc (((((( $[e | go.away_{\top\omega} \langle \perp \varepsilon, \top \delta \rangle, e =_i (\blacktriangleleft \perp \varepsilon)_{\perp \omega}];$   
 $\top [t | \perp \varepsilon \leftarrow_{\top\omega} t]; [e | e \subseteq_{\top\omega} \top \tau, e \subseteq_{\top\omega} \blacktriangleright \perp \varepsilon, \uparrow e \sqsubseteq_i \uparrow \perp \varepsilon]) \top;$
- ... we went to Mrs. Fensky[⊥] and ...
- \m Mrs. Fensky ceme-nug=na  
 \g Mrs. Fensky presence-3SG=loc  
 \uc ( $[x | x =_i Mrs. Fensky]; [in.the.presence.of_{\top\omega} \langle \blacktriangleright \perp \varepsilon, \uparrow \perp \varepsilon, \perp \delta \rangle];$
- \m l-im-eu  
 \g go-SEQ.SS-1DU  
 \uc ( $[go.to_{\top\omega} \langle \perp \varepsilon, \top \delta, \perp \delta \rangle]; [e | e \subseteq_{\top\omega} \top \tau, e \subseteq_{\top\omega} \blacktriangleright \perp \varepsilon, \uparrow e \sqsubseteq_i \uparrow \perp \varepsilon]) \top;$  ...
- ... when she_⊥ asked me about my illness, I explained it to her_⊥ ...
- \t ija hag=nu  
 \g 1SG illness=about  
 \uc ( $\partial [1 \langle \uparrow \top \varepsilon \rangle]; \top [s | sick_{\top\omega} \langle s, \uparrow \top \varepsilon \rangle, s \in_i \top \Rightarrow \sigma];$
- \m sisil-t-ece-b  
 \g ask-1SG-SEQ.DS-3SG (NB: *skipped clause*)  
 \uc ( $! [e | ask.abt_{\top\omega} \langle e, \perp \delta, \uparrow \top \varepsilon, \top \sigma \rangle, e \subseteq_{\top\omega} \top \tau, \perp \varepsilon \subseteq_{\top\omega} \blacktriangleright e, \uparrow \perp \varepsilon \not\sqsubseteq_i \uparrow e];$
- \m hag=nu  
 \g illness=about  
 \uc  $\partial [sick_{\top\omega} \langle \top \sigma, \uparrow \top \varepsilon \rangle];$
- \m sil-d-i ma-d-oco-min  
 \g explain-3SG-VV speak.to-3SG-SEQ.DS-1SG  
 \uc ( $[explain.abt_{\top\omega} \langle \perp \varepsilon, \uparrow \top \varepsilon, \top \sigma \rangle, speak.to_{\top\omega} \langle \perp \varepsilon, \uparrow \top \varepsilon, \perp \delta \rangle];$   
 $[e | e \subseteq_{\top\omega} \top \tau, e \subseteq_{\top\omega} \blacktriangleright \perp \varepsilon, \uparrow e \not\sqsubseteq_i \uparrow \perp \varepsilon]) \top;$  ...
- ... To check my temperature, she^T put a thermometer under my armpit. ...
- \m uqa glas=na  
 \g 3SG thermometer=loc  
 \uc ( $\partial [1 \langle \perp \delta \rangle]; \top [x | x =_i \perp \delta]; [x | thermometer_{\top\Omega} \langle x \rangle];$
- \m ija=na hag f-igi-an=nu  
 \g 1SG=of temperature see-3SG-FUT[⊥]=for_{⊥ε}^p  
 \uc ( $[p | intend_{\top\omega} \langle \circ \perp \varepsilon, \uparrow \perp \varepsilon, p \rangle]; !([s | s =_i \circ \perp \varepsilon]; [t | \perp \sigma <_{\top\omega} t];$   
 $!([e | w | temp.on_w \langle \downarrow e, \perp \delta, \vartheta_w e \rangle, temp.of_w \langle \downarrow e, \uparrow \top \varepsilon, \vartheta_w e \rangle, see_w \langle e, \top \delta, \downarrow e \rangle,$   
 $e =_i (\blacktriangleleft \perp \sigma)_w, e \subseteq_w \perp \tau]; [OPT \{ \top \Omega, \perp \Omega |_{\top\omega, \perp \sigma} \} \subseteq_I \perp \omega]);$
- \m gia-ni=na m-i-m-ei  
 \g armpit-1SG=loc put-vv_{⊥σ}-SEQ.SS-3SG  
 \uc ( $[x | armpit.of_{\top\Omega} \langle x, \uparrow \top \varepsilon \rangle, put.in_{\top\omega} \langle \perp \varepsilon, \top \delta, \perp \delta, x \rangle, \perp \varepsilon \subseteq_{\top\omega} \perp \sigma];$   
 $[e | e \subseteq_{\top\omega} \top \tau, e \subseteq_{\top\omega} \blacktriangleright \perp \varepsilon, \uparrow e \sqsubseteq_i \uparrow \perp \varepsilon]) \top;$  ...



... Then she_T took out the thermometer, and ...

\m glass  
 \g thermometer  
 \uc ( $\partial[thermometer\langle \perp \delta \rangle]; [x | x =_i \perp \delta]$ );

\m u-m-ei  
 \g take-SEQ.SS-3SG  
 \uc [ $take.out_{T\omega}\langle \perp \varepsilon, T\delta, \perp \delta \rangle]; [e | e \subseteq_{T\omega} T\tau, e \subseteq_{T\omega} \triangleright \perp \varepsilon, \uparrow e \subseteq_i \uparrow \perp \varepsilon]$ )]^T; ...

... saw my temperature.

\m ija=na hag f-ei-an  
 \g 1SG=of temperature see-3SG-YST.P  
 \uc ( $[T\tau <_{T\omega} T\varepsilon, T\tau \subseteq_i day^{bfr}\langle \vartheta_{T\omega} T\varepsilon \rangle]; [temp.on_{T\omega}\langle \downarrow \perp \varepsilon, \perp \delta, \vartheta \perp \varepsilon \rangle, temp.of_{T\omega}\langle \downarrow \perp \varepsilon, \uparrow T\varepsilon, \vartheta \perp \varepsilon \rangle, see_{T\omega}\langle \perp \varepsilon, T\delta, \downarrow \perp \varepsilon \rangle, \perp \varepsilon \subseteq_{T\omega} T\tau]$ ); ^T[ $p | p = T\omega ||_{T\omega}$ ]

Model for (7)

<u>Dref</u>	<u>Symbol: Description</u>	<u>Temporal-modal cnds.</u>	<u>Source</u>
$\tau w_0 \in \tau p_7 \subseteq (\tau) p_6 \dots$	$\tau w_0$ : candidate for $e_0$ -world		$^{st}e_0$
•	$\tau e_0$ : $\uparrow e_0$ addresses $\downarrow e_0$	$\exists t: t = \vartheta_{p_0} e_0$	$^{st}e_0$
⋮	⋮	⋮	⋮
•	$e_{6.3}$ : $\uparrow e_0 \sqcup M$ . go away	$e_{6.3} \subseteq_{w_0} t_6, e_{6.3} \subseteq_{w_0} \triangleright e_{6.2}$	$v^e$ -SEQ
•	$e_{7.0}$ : $\uparrow e_0 \sqcup M$ . arrive	$e_{7.0} = (\blacktriangleleft e_{6.3})_{w_0}$	$v_{\perp \varepsilon}^e$
■■■■■■■	$\tau t_7$ : $e_{7.0}$ - <i>imm. fut in</i> $e_0$ - <i>yst.</i>	$e_{7.0} \prec_{w_0} t_7$	$v$ -SEQ ^T ...
•	$e_{7.1}$ : $\uparrow e_0 \sqcup M$ . go & see Mrs. F	$t_7 \prec_{p_6} e_0, t_7 \subseteq t_{yst.e_0}$	... YST.P
!( •	$e'_{7.1}$ : Mrs. F asks $\uparrow e_0$ abt ill. $\tau s_{3.3}$	$e_{7.1} \subseteq_{w_0} t_7, e_{7.1} \subseteq_{w_0} \triangleright e_{7.0}$	$v^e$ -SEQ
•	$e_{7.2}$ : $\uparrow e_0$ explains $\tau s_{3.3}$ to Mrs. F	$e'_{7.1} \subseteq_{w_0} t_7, e_{7.2} \subseteq_{w_0} \triangleright e'_{7.1}$	$v^e$ -SEQ
•	$e_{7.3}$ : Mrs. F puts thermometer $\gamma_7$ in $\uparrow e_0$ 's armpit	$e_{7.2} \subseteq_{w_0} t_7, e_{7.2} \subseteq_{w_0} \triangleright e_{7.1}$	$v^e$ -SEQ
!( —	$s'_7 = \circ e_{7.3}$ : Mrs. F intends $Q_7$	$e_{7.3} \subseteq_{w_0} t_7, e_{7.3} \subseteq_{w_0} \triangleright e_{7.2}$	$v^e$ -SEQ
•	$e_{7.4}$ : Mrs. F takes out therm. $\gamma_7$	$s'_7 = \circ e_{7.3}$	=for _{$\perp \varepsilon$} ^P )
•	$e_{7.5}$ : Mrs. F sees $\uparrow e_0$ 's temp.	$e_{7.4} \subseteq_{w_0} t_7, e_{7.4} \subseteq_{w_0} \triangleright e_{7.3}$	$v^e$ -SEQ
	$e_{7.5} \subseteq_{w_0} t_7, e_{7.5} \subseteq_{w_0} \triangleright e_{7.4}$		$v^e$ -SEQ
~~~~~			
!($w_7 \in OPT(\tau p_6, Q_7)$	w_7 : Q_7 -optimal p_6 -world		=for _{$\perp \varepsilon$} ^P
■	t'_7 : s_7 -future	$s_7 \prec_{w_0} t'_7$	FUT [⊥]
•	e''_7 : $\uparrow s_7$ sees $\uparrow e_0$'s temperature	$e''_7 \subseteq_{w_5} t'_7,$ $e''_7 = (\blacktriangleleft s'_7)_{w_7}$	v^e -TNS =for)

(8) Then^{Tt} ...

\m Od-im-ei
 \g do_{⊥ε}-SEQ.SS^T-3SG
 \uc ((^T[t] ⊥ε <_{Tω} t]; [e| e ⊆_{Tω} Tτ, e ⊆_{Tω} ▷⊥ε, ↑e ⊆_i ↑⊥ε])^T; ...
 ... she_T gave me some medicin.
 \m marasin it-i-an
 \g medicin give.1SG-3SG-YST.P
 \uc ([Tτ <_{TΩ} Tε, Tτ ⊆_i day^{bfr}⟨ϑ_{TΩ} Tε⟩];
 ([e| medicin_{Tω}⟨↓e, ϑ_{Tω} e⟩, give_{Tω}⟨e, Tδ, ↓e⟩, **dat** e = ↑Tε, ⊥ε ⊆_{Tω} Tτ];
^T[p| p = Tω||_{TΩ}]

(9) She_T examined me [and said that ...

\m uqa dewe-ni
 \g 3SG body-1SG
 \uc (∂[1⟨Tδ⟩]; [x| body.of_{TΩ}⟨x, ↑Tε⟩];
 \m melel-d-oi-an
 \g examine-3SG-3SG-YST.P
 \uc [Tτ <_{TΩ} Tε, Tτ ⊆_i day^{bfr}⟨ϑ_{TΩ} Tε⟩]; [e| examine_{Tω}⟨e, Tδ, ⊥δ⟩, e ⊆_{Tω} Tτ];
 !([e p| e = (▲[∇]⊥ε)_{Tω}, say_{Tω}⟨e, Tδ, p⟩];
 ... that pain in my body was just outside on the skin, not inside].
 \m eu dewe-ni dain
 \g that body-1SG pain
 \uc (∂[1⟨↑Tε⟩]; [x| body.of_{Tω}⟨x, ↑Tε⟩]; ^T[s| in.pain_{Tω}⟨s, ⊥δ⟩, s ⊆_i T[⇒]σ];
 \m gana-c=na himec
 \g skin-3SG=loc just
 \uc [w| on.skin^{of}_w⟨Tσ, ⊥δ⟩, ⊥ε ⊆_{⊥ω} Tσ];
 \m dunuh-ca qee
 \g inside-3SG=loc not
 \uc ~[inside^{of}_{⊥ω}⟨Tσ, ⊥δ⟩, ⊥ε ⊆_{⊥ω} Tσ]; [∩(⊥Ω||_{Tω, ⊥ε}) ⊆_I ⊥ω||]; ^T[p| p = Tω||_{TΩ}]

Model for (8)–(9)

<u>Dref</u>	<u>Symbol: Description</u>	<u>Temporal-modal cnds.</u>	<u>Source</u>
^T w ₀ ∈ ^T p ₉ ⊆ (^T)p ₈ ...	^T w ₀ : candidate for e ₀ -world		st e ₀
•	• ^T e ₀ : ↑e ₀ addresses ↓e ₀	∃t: t = ϑ _{p0} e ₀	st e ₀
⋮	⋮	⋮	⋮
•	e _{7.5} : Mrs. F sees ↑e ₀ 's temp.	e _{7.5} ⊆ _{w0} t ₇ , e _{7.5} ⊆ _{w0} ▷e _{7.4}	v ^e -SEQ
■■■	^T t ₈ : e _{7.5} -imm. fut in e ₀ -yst.	e _{7.5} <_{w0} t ₈	v _{⊥ε} -SEQ ^T ...
•	e ₈ : Mrs. F gives ↑e ₀ medicin	t ₈ <_{p8} e ₀ , t ₈ ⊆ t _{yst.e0}	... YST.P
••	e ₉ : Mrs. F examines ↑e ₀	e ₈ ⊆ _{w0} t ₈ , e ₈ ⊆ _{w0} ▷e _{7.5}	v ^e -SEQ
!(•	e' ₉ : Mrs. F says Q ₉ (abt ^T s ₉)	e ₉ ⊆ _{w0} t ₈	v ^e -TNS
_____ ...	^T s ₉ : ↑e ₀ 's head & back aches	e' ₉ = (▲ [∇] e ₉) _{w0}	examine-TNS (...)
		s ₉ = s _{3.3}	that pain ^{Ts}
~~~~~			
!(w ₉ ∈ ∩Q ₉	w ₉ : ∩Q ₉ -verifying world		=for _{⊥ε} ^p
_____ ...	^T s ₉ : ↑e ₀ aches on outside only	e ₉ ⊆ _{w9} s ₉	examine-TNS (...)

**(10) Therefore^{T^s} ...**

\m Eu=nu

\g that_{⊥ε}=for^{T^s}\uc (((((((^T[s] s ⊆_i ▷[▲]⊥ε]; ...... she_T said to me: (“You may go back home now”). So ...\m “...” od-i ma-t-**ece-b**\g v.thus-vv speak.to-1SG-SEQ.DS^T-3SG\uc [p]; ...; [e] say_{Tω}⟨e, Tδ, ⊥Ω⟩, speak.to_{Tω}⟨e, Tδ, ↑Tε⟩, e=_i [▲]Tσ];^T[t] ⊥ε  $\leftarrow$ _{Tω} t]; [e] e ⊆_{Tω} Tτ, e ⊆_{Tω} ▷⊥ε, ↑e  $\not\subseteq$ _i ↑⊥ε])^T; ...... I went back down with Malolo^T, and ...

\m cesel-i h-u

\g go.back-vv come-vv

\uc ([go.back_{Tω}⟨[▲]∇⊥ε, ↑Tε⟩];

\m Malolo=ca uqa n-u

\g Malolo=with he go.down-SS (NB: ‘ss’ = ‘same place’)

\uc ^T[x] x=_i malolo]; [go.down.with_{Tω}⟨([▲]∇⊥ε)_{Tω}, ↑Tε, Tδ⟩];[e] e ⊆_{Tω} Tτ, π_{Tω}[▲]∇e ⊆_i π_{Tω}([▲]∇⊥ε)_{Tω})^T; ...... he_T took me up in his car and dropped me off at the baby clinic. Then ...

\m ka=na ah-i b-i

\g car=in take-vv go.up-vv

\uc ([x] car_{Tω}⟨x⟩, x ⊆_i ⊥^δ, take.in_{Tω}⟨∇⊥ε, Tδ, ↑Tε, x⟩, go.up⟨∇⊥ε, Tδ⟩];\m baby clinic cudun=na ono m-it-**ece-b**

\g baby clinic place=loc there put-1SG-SEQ.DS-3SG

\uc [x] baby.clinic_{Tω}⟨x⟩, drop.off.at_{Tω}⟨([▲]∇⊥ε)_{Tω}, Tδ, ↑Tε, x⟩];[e] e ⊆_{Tω} Tτ, e ⊆_{Tω} ▷[▲]⊥ε, ↑e  $\not\subseteq$ _i ↑⊥ε])^T; ...

... I and Lufani, a daughter of mine who had married a Graged man, went up to the market place, and ...

\m ija Lufani=ca

\g I Lufani=and

\uc ∂[1⟨↑Tε⟩]; ^T[x] name.of⟨x⟩=_i lufani];

\m ija=na mel_aid oso Graged dana o.n

\g [I=of girl one [Graged man get.3SG.PST_⊥⁺]]\uc [daughter.of_{TΩ}⟨Tδ, ↑Tε⟩]; ∂[1⟨Tδ⟩]; [t] t_{TΩ} ⊥ε];![e] graged.man_{TΩ}⟨↓e⟩, marry_{TΩ}⟨e, Tδ, ↓e⟩, e ⊆_{TΩ} ⊥τ]

(NB: not-at-issue RC)

\m uqa=ca

\g she=and

\uc ∂[1⟨Tδ⟩]; ^T[x] x=_i ↑Tε ⊔ Tδ];\m ono maket cudun=na t-**im-eu**

\g there market place=loc go.up-SEQ.SS-1DU

\uc [x] market.place_{Tω}⟨x⟩]; [go.up.to_{Tω}⟨⊥ε, Tδ, ⊥δ⟩];[e] e ⊆_{Tω} Tτ, e ⊆_{Tω} ▷⊥ε, ↑e ⊆_i ↑⊥ε])^T; ...

... there I caught an Oirep PMV (Public Motor Vehicles), which ...

\m ono ka oso Oirep age=na ka PMV eu  
 \g there car one Oirep that=of car PMV that  
 \uc  $([\pi_{\tau\omega} \perp \varepsilon \sqsubseteq_i \perp \delta]; [x] \text{car}_{\tau\omega}\langle x \rangle, \text{of}_{\tau\omega}\langle x, \text{oirep.PMV} \rangle];$

\m u-m-ig  
 \g get-SEQ.SS-1SG  
 \uc  $([\text{get.on}_{\tau\omega}\langle \perp \varepsilon, \uparrow \tau \varepsilon, \perp \delta \rangle];$   
 $[e | e \sqsubseteq_{\tau\omega} \tau, e \sqsubseteq_{\tau\omega} \triangleright \perp \varepsilon, \uparrow e \sqsubseteq_i \uparrow \perp \varepsilon]))^\top; \dots$

... I took up to the Danben Road. And then ...

\m b-i Danben jic=na ton-im-ig  
 \g go.up-vv Danben road=loc descend-SEQ.SS-1SG  
 \uc  $([\text{go.up}_{\tau\omega}\langle \perp \varepsilon, \uparrow \tau \varepsilon \rangle, \text{get.off.at}_{\tau\omega}\langle \perp \varepsilon, \uparrow \tau \varepsilon, \text{danben.rd} \rangle];$   
 $[e | e \sqsubseteq_{\tau\omega} \tau, e \sqsubseteq_{\tau\omega} \triangleright \perp \varepsilon, \uparrow e \sqsubseteq_i \uparrow \perp \varepsilon]))^\top; \dots$

... I walked [back] up here.

\m ene b-ig-an  
 \g here go.up-1SG-YST.P  
 \uc  $([\tau <_{\tau\omega} \tau \varepsilon, \tau \varepsilon \sqsubseteq_i \text{day.}^{bfr} \langle \vartheta_{\tau\omega} \tau \varepsilon \rangle];$   
 $[x | \pi_{\tau\omega} \tau \varepsilon \sqsubseteq_i x, \text{go.up.to}_{\tau\omega}\langle \perp \varepsilon, \uparrow \tau \varepsilon, x \rangle, \perp \varepsilon \sqsubseteq_{\tau\omega} \tau \varepsilon]));^\top [p | p = \tau \omega ||_{\tau\omega}]$

Model for (10)

<i>Dref</i>	<i>Symbol: Description</i>	<i>Temporal-modal cnds.</i>	<i>Source</i>
$\tau w_0 \in \tau p_{10} \sqsubseteq (\tau) p_9 \dots$	$\tau w_0$ : candidate for $e_0$ -world		$^{st}e_0$
•	$\tau e_0$ : $\uparrow e_0$ addresses $\downarrow e_0$	$\exists t: t = \vartheta_{p_0} e_0$	$^{st}e_0$
:	:	:	:
••	$e_9$ : Mrs. F examines $\uparrow e_0$	$e_9 \sqsubseteq_{w_0} t_8$	$v^e$ -TNS
!(•	$e'_9$ : Mrs. F says $Q_9$ (abt $\tau s_9$ )	$e'_9 = (\blacktriangleleft \nabla e_9)_{w_0}$	examine e -TNS [...]
—... —	$\tau s_9$ : $\uparrow e_0$ 's head & back aches	$s_9 = s_{3,3}$	that pain $^{\tau s}$
•	$\tau s_{10}$ : result of $e_9$	$s_{10} \sqsubseteq_i \blacktriangleright \blacktriangle e_9$	that $_{\perp e}$ =for $^{\tau s}$ [...
■■■■■■■■■	$e_{10.0}$ : Mrs. F says $Q_{10}$ to $\uparrow e_0$	$e_{10.0} = \blacktriangleright s_{10}$	... $v^e$ ]
	$\tau t_{10}$ : $e_{10}$ -imm. fut in $e_0$ -yst.	$e_{10.0} \prec_{w_0} t_{10}$	$v_{\perp e}$ -SEQ $^\top$ ...
		$t_{10} <_{p_9} e_0, t_{10} \sqsubseteq t_{\text{yst}.e_0}$	... YST.P
••	$e_{10.1}$ : $\uparrow e_0$ goes back dwn w/M.	$e_{10.1} \sqsubseteq_{w_0} t_{10}, e_{10.1} \sqsubseteq_{w_0} \blacktriangleright e_{10.0}$	$v^e$ -SEQ
••	$e_{10.2}$ : M. takes $\uparrow e_0$ up in car & drops $\uparrow e_0$ off at baby clinic	$e_{10.2} \sqsubseteq_{w_0} t_{10}, \pi_{w_0} \blacktriangleright \nabla e_{10.2} \sqsubseteq_{\delta} \pi_{w_0} (\blacktriangleleft \nabla e_{10.1})_{w_0}$	$v^e$ -SS
!(■■■	$t'_{10}$ : $e_{10.2}$ -past	$t'_{10} <_{p_9} e_{10.2}$	PST $_{\perp}$ $^\perp$
•	$e'_{10}$ : $\uparrow e_0$ 's daughter L. marries Graged man	$e'_{10} \sqsubseteq_{p_9} t'_{10}$	$v^e$ -TNS)
•	$e_{10.3}$ : $\uparrow e_0$ □ daughter L. go up to market place $l_{10.1}$	$e_{10.3} \sqsubseteq_{w_0} t_{10}, e_{10.3} \sqsubseteq_{w_0} \blacktriangleright \blacktriangle e_{10.2}$	$v^e$ -SEQ
•	$e_{10.4}$ : $\uparrow e_0$ takes PMV car $y_{10}$ from market place $l_{10.1}$	$e_{10.4} \sqsubseteq_{w_0} t_{10}, e_{10.4} \sqsubseteq_{w_0} \blacktriangleright e_{10.3}$	$v^e$ -SEQ
•	$e_{10.5}$ : $\uparrow e_0$ gets off PMV car $y_{10}$ at Danby Road $l_{10.2}$	$e_{10.5} \sqsubseteq_{w_0} t_{10}, e_{10.5} \sqsubseteq_{w_0} \blacktriangleright e_{10.4}$	$v^e$ -SEQ
•	$e_{10.6}$ : $\uparrow e_0$ walks up to $e_0$ -here	$e_{10.6} \sqsubseteq_{w_0} t_{10}, e_{10.6} \sqsubseteq_{w_0} \blacktriangleright e_{10.5}$	$v^e$ -SEQ

**(11) When I [got off] ...**

\m Od-im-ig  
 \g do_{⊥'ε}^e-SEQ.SS[⊤]-1SG  
 \uc [ $e | e = ⊥'ε$ ]; [⊤][ $t | ⊥ε \prec_{\top\omega} t$ ]; [ $e | e \subseteq_{\top\omega} \top\tau, e \subseteq_{\top\omega} \triangleright ⊥ε, \uparrow e \subseteq_i \uparrow ⊥ε$ ]] [⊤]; ...  
 ... I paid that PMV [driver] 20 toea.  
 \m ka PMV eu  
 \g car PMV that  
 \uc [ $x | PMV.car_{\top\omega} \langle x \rangle, x \in_i \leftarrow ⊥\delta$ ]; [ $x | driver^{of}_{\top\omega} \langle x, ⊥\delta, \vartheta_{\top\omega} ⊥ε \rangle$ ];  
 \m twenty toea=na faj-ig-an  
 \g twenty toea=with pay-1SG-YST.P  
 \uc ([ $\top\tau \prec_{\top\omega} \topε, \top\tau \subseteq_i day^{bfr} \langle \vartheta_{\top\omega} \topε \rangle$ ]; [ $pay.20.toea_{\top\omega} \langle ⊥ε, \uparrow \topε, ⊥\delta \rangle, ⊥ε \subseteq_{\top\omega} \top\tau$ ]]); [⊤][ $p | p = \top\omega ||_{\top\omega}$ ]

Model for (11)

<u>Dref</u>	<u>Symbol: Description</u>	<u>Temporal-modal cnds.</u>	<u>Source</u>
$\top w_0 \in \top p_{10} \subseteq (\top) p_9 \dots$	$\top w_0$ : candidate for $e_0$ -world		$^{st}e_0$
•	$\top e_0$ : $\uparrow e_0$ addresses $\downarrow e_0$	$\exists t: t = \vartheta_{p_0} e_0$	$^{st}e_0$
⋮	⋮	⋮	⋮
•	$e_{10.5}$ : $\uparrow e_0$ gets off PMV car $\gamma_{10}$ at Danby Road $l_{10.2}$	$e_{10.5} \subseteq_{w_0} t_{10}, e_{10.5} \subseteq_{w_0} \triangleright e_{10.4}$	$v^e$ -SEQ
•	$e_{10.6}$ : $\uparrow e_0$ walks up to $e_0$ -here	$e_{10.6} \subseteq_{w_0} t_{10}, e_{10.6} \subseteq_{w_0} \triangleright e_{10.5}$	$v^e$ -SEQ
•	$e_{11.0}$ : $\uparrow e_0$ gets off PMV car $\gamma_{10}$ at Danby Road $l_{10.2}$	$e_{11.0} = e_{10.5}$	$v_{\perp'ε}^e$ -
■	$\top t_{11}$ : $e_{11.0}$ - <i>imm. fut in</i> $e_0$ -yst.	$e_{11.0} \prec_{w_0} t_{11}$	$v^e$ -SEQ [⊤] ...
•	$e_{11.1}$ : $\uparrow e_0$ pays $\gamma_{10}$ -driver 20 toea	$t_{11} \prec_{p_{10}} e_0, t_{11} \subseteq t_{yst.e_0}$ $e_{11.1} \subseteq_{w_0} t_{11}, e_{11.1} \subseteq_{w_0} \triangleright e_{11.0}$	... YST.P $v^e$ -SEQ

**(12) That's all.**