Dissociations between Argument Structure and Grammatical Relations

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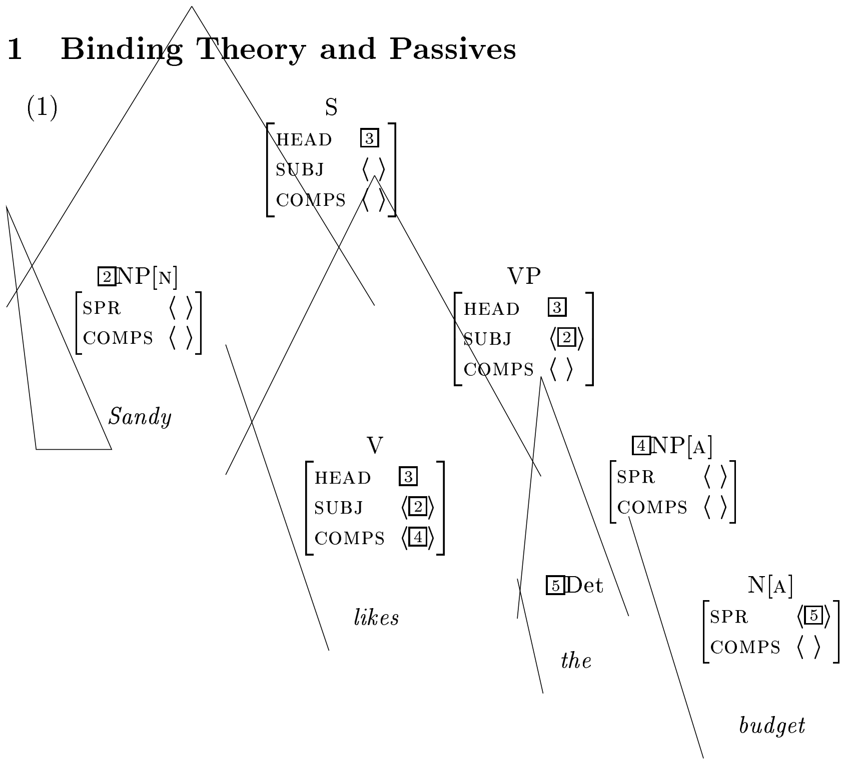
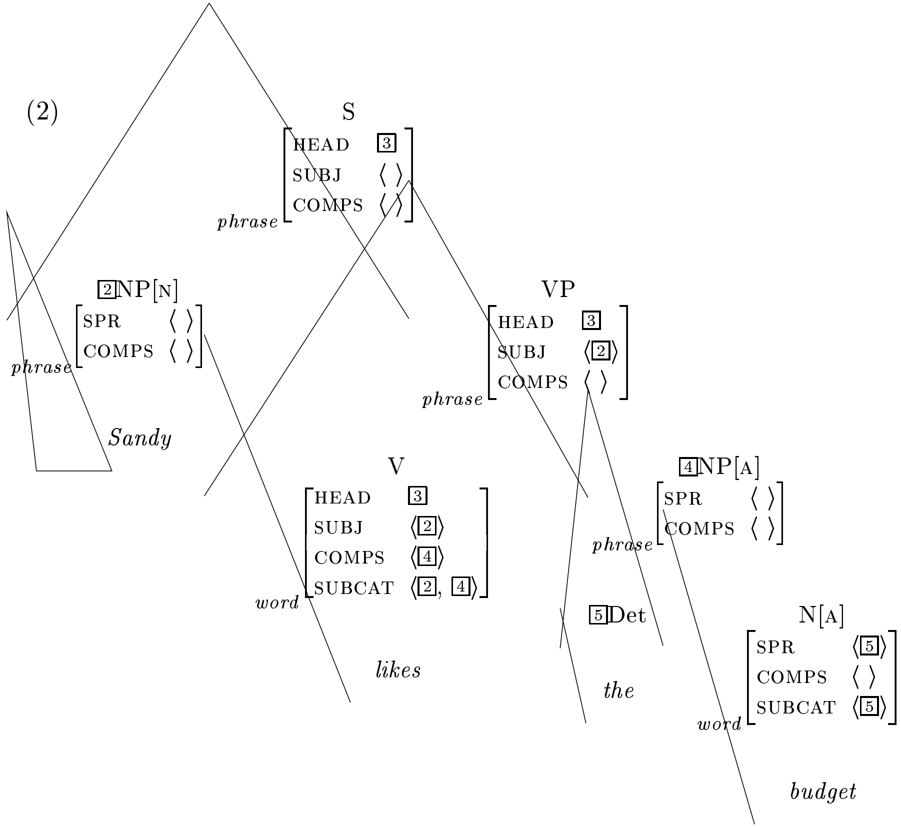
1 Binding Theory and Passives

(1)



(2)



(3) Naoki-ga mi-ta
Naoki-NOM see-PAST
'Naoki saw (it).'

(4)
$$\begin{bmatrix} \text{SUBJ} & \langle \boxed{1}\text{NP}[\text{NOM}] \rangle \\ \text{COMPS} & \langle\ \rangle \\ \text{SUBCAT} & \langle \boxed{1}_i, \boxed{2}\text{NP}_j \rangle \\ \text{CONT} & {}_{\textit{seeing}}\begin{bmatrix} \text{SEER} & i \\ \text{SEEN} & j \end{bmatrix} \end{bmatrix}$$

(5) HPSG Binding Theory:

Principle A. A locally a-commanded anaphor must be locally a-bound.
Principle B. A personal pronoun must be locally a-free.
Principle C. A non-pronoun must be a-free.

(6) a. An **a-subject** is an entity that is first on some ARG-S list.

b. A-subject principle: Anaphors must be a-subject-bound (in some languages).

(7) Hanako-ga Taroo-ni zibun.zisin-no e-o mise-ta.
Hanako-NOM Taroo-DAT self-GEN picture-ACC show-PAST
(lit.) 'Hanako$_i$ showed Taroo$_j$ self$_{i/*j}$'s picture.'

(8)
$$_{\textit{active-stem}}\left[\begin{array}{ll}\text{SUBCAT} & \langle \boxed{1}_i, \boxed{2}\rangle \oplus \text{L} \\ \text{CONT} & \boxed{3}\end{array}\right] \rightarrow {}_{\textit{passive-stem}}\left[\begin{array}{ll}\text{SUBCAT} & \langle \boxed{2}\rangle \oplus \text{L} \; (\oplus \langle \text{PP}[\textit{by}]_i \rangle \;) \\ \text{CONT} & \boxed{3}\end{array}\right]$$

(9) a. Boris mne rasskazal anekdot o sebe
Boris.NOM me.DAT told joke about self
'Boris$_i$ told me a joke about himself$_i$.'

b. Èta kniga byla kuplena Borisom dlja sebja
this book.NOM was bought Boris.INSTR for self
'This book was bought by Boris$_i$ for himself$_i$.'

(10)
$$_{\textit{passive-stem}}\left[\begin{array}{ll}\text{ARG-S} & \langle \boxed{2}\rangle \oplus \text{L} \; (\oplus \langle \boxed{3}_i \rangle \;) \\ \text{CONT} & \boxed{4} \\ \text{STEM} & {}_{\textit{transitive-stem}}\left[\begin{array}{ll}\text{ARG-S} & \langle \boxed{1}_i, \boxed{2}\rangle \oplus \text{L} \\ \text{CONT} & \boxed{4}\end{array}\right]\end{array}\right]$$

(11)
$$_{\textit{passive-part}}\left[\begin{array}{ll}\text{ARG-S} & \langle \; \boxed{2}\text{NP}[\textit{nom}], \boxed{5}\text{PP}, \boxed{3}\text{NP}[\textit{instr}]_i \; \rangle \\ \text{CONT} & \boxed{4}\; {}_{\textit{buying}}\left[\begin{array}{ll}\text{BUYER} & \boxed{1} \\ \text{BOUGHT} & \boxed{2} \\ \text{BENEFICIARY} & \boxed{5}\end{array}\right] \\ \text{STEM} & {}_{\textit{transitive-stem}}\left[\begin{array}{ll}\text{ARG-S} & \langle \; \boxed{1}_i, \boxed{2}, \boxed{5} \; \rangle \\ \text{CONT} & \boxed{4}\end{array}\right]\end{array}\right]$$

(12) a. Naja Tobiasi-mit uqaluttuun-niqar-p-u-q taa-ssu-ma
Naja.ABS Tobias-ABL tell-PASS-IND-INTR-3SG [DEM-SG-ERG
itigartis-sima-ga-a-ni
turn.down-PRF-PRT.TR-3SG-4SG]
'Naja$_j$ was told by Tobias$_i$ that he$_k$ had turned self$_{i/j}$ down.' (West Greenlandic Inuit)

b. sarpas tenātmanā svālayaṃ
snake.NOM he.INSTR self.INSTR self.house.ACC
nītaḥ
brought.PASS.PART.NOM
'The snake was brought by him$_i$ himself to self$_i$'s house.' (Sanskrit: logical subject binder)

c. anṛtaṃ tu vadan daṇḍyaḥ
untruth.NOM but telling.NOM fine.GER.NOM
svavittasyāṃśam
self.property.GEN part.ACC
'But a perjurer$_i$ is to be fined one eighth (*lit.* part) of self$_i$'s property.' (Sanskrit: surface subject binder)

(13) Yamada-san-wa hataraki-nagara daigaku-o sotsugyoo si-masi-ta
Yamada-HON-TOP work-while university-ACC graduate do-POL-PAST
'Mr. Yamada worked his way through college (lit. Mr. Yamada graduated while working).'

(14) Hanako-ga Taroo-ni aruki-nagara aisatu s-are-ta
Hanako-NOM Taroo-by walk-while greet do-PASS-PAST
'Hanako$_i$ was greeted by Taroo$_j$, while (she$_i$/he$_j$ was) walking.'

(15) uumasuq pikin-naviir-lu-gu qilirsur-niqar-p-u-q
animal$_j$ kick.about-prevent-INF-3SG tie.up-PASS-IND-ITR-3SG
'The animal was tied up (by somebody$_i$), pro$_i$ preventing it from kicking about.'

2 Syntactically ergative and Western Austronesian languages

2.1 Toba Batak

(16) a. Mang-ida si Ria si Torus
AV-see PM Ria PM Torus
'Torus sees/saw Ria.'

b. Di-ida si Torus si Ria
OV-see PM Torus PM Ria
'Torus sees/saw Ria.'

(17) a. [Muúli] anggína
marry brother.his
'His brother gets married.'

b. [Mang-aléan éme] halak án tu malim án
AV-give rice man to priest
'The man gives rice to the priest.'

c. [Di-bóto málim] na manúhor éme pangula í
OV-know priest buy rice farmer
'The priest knows that the farmer buys rice.'

(18) a. Man-uhor baoang jala mang-olompa mangga halak an
[AV-buy onions] and [AV-cook mangoes] man
'The man buys onions and cooks mangoes.'

b. Di-tuhor si Ore jala di-lompa si Ruli mangga
[OV-buy PM Ore] and [OV-buy PM Ruli] mangoes
'Ore buys and Ruli cooks mangoes.'

(19) a. Mang-elek si Bill si John man-uhor biang __
AV-persuade PM Bill PM John AV-buy dog
'John is persuading Bill to buy a dog.'

b. Mang-elek si Bill si John di-pareso doktor __
AV-persuade PM Bill PM John OV-examine doctor
'John is persuading Bill to be examined by a doctor.'

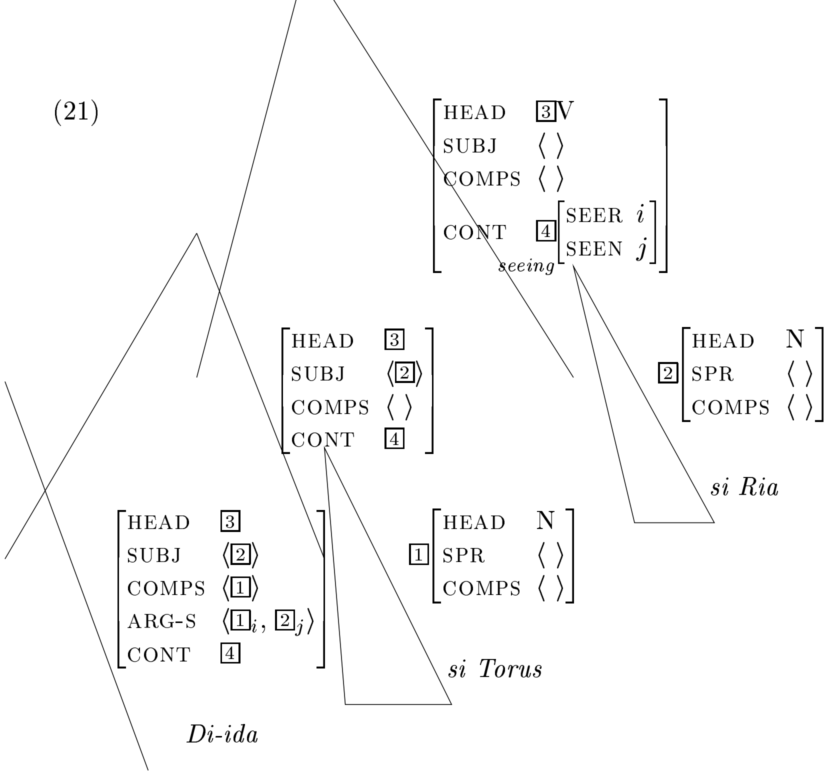
(20) a.

$$\begin{bmatrix} \text{PHON} & \langle \text{mang-ida} \rangle \\ \text{SUBJ} & \langle \boxed{1} \rangle \\ \text{COMPS} & \langle \boxed{2} \rangle \\ \text{ARG-S} & \langle \boxed{1}\text{NP}_i, \boxed{2}\text{NP}_j \rangle \\ \text{CONT} & {}_{seeing}\begin{bmatrix} \text{SEER} & i \\ \text{SEEN} & j \end{bmatrix} \end{bmatrix}$$

b.

$$\begin{bmatrix} \text{PHON} & \langle \text{di-ida} \rangle \\ \text{SUBJ} & \langle \boxed{2} \rangle \\ \text{COMPS} & \langle \boxed{1} \rangle \\ \text{ARG-S} & \langle \boxed{1}\text{NP}_i, \boxed{2}\text{NP}_j \rangle \\ \text{CONT} & {}_{seeing}\begin{bmatrix} \text{SEER} & i \\ \text{SEEN} & j \end{bmatrix} \end{bmatrix}$$

(21)



(22) a. Mang-ida diri-na si John
AV-saw self-his PM John
'John$_i$ saw himself$_i$.'

b. *Mang-ida si John diri-na
AV-saw PM John self-his
*'Himself$_i$ saw John$_i$.'

(23) a. *Di-ida diri-na si John
OV-saw self-his PM John
*'Himself$_i$ saw John$_i$.'

b. Di-ida si John diri-na
OV-saw PM John self-his
'John$_i$ saw himself$_i$.'

(24) Agent > Patient > Dative

2.2 Balinese

(25) a. Putu [alih tiang] metengang
Putu OV.look.for 1SG at.night
'I look for Putu at night.'

b. Tiang [ng-alih Putu] metengang
1SG AV.look.for Putu at.night
'I look for Putu at night.'

(26) a. Adv NP [Verb NP]

b. NP Adv [Verb NP]

c. *NP [Verb Adv NP]

(27) padi-ne ka-ambil (teken Made)
rice-DEF PASS-take (with Made)
'The rice has been taken (by Made).'

(28) a. tiang ane ___ gugut cicing
1SG REL SUBJ OV.bite dog
'I am the one the dog bites.'

b. *cicing ane tiang gugut
dog REL 1SG OV.bite COMPLEMENT

(29) a. cicing-e ane ___ ngugut tiang
dog-DEF REL SUBJ AV.bite 1SG
'The dog is the one who bit me.'

b. *tiang ane cicing-e ngugut
1SG REL dog-DEF AV.bite COMPLEMENT

(30) awak cai-ne pedihang cai
self 2SG-POSS OV.blame 2SG
'You blamed yourself.'

2.3 Different linking patterns through sortal cross-classification

(31) a. $\textit{verb-stem} \rightarrow \begin{bmatrix} \text{CAT} & \text{V} \\ \text{SPR} & \langle\,\rangle \end{bmatrix}$

b. $\textit{subj-verb-stem} \rightarrow \textit{verb-stem} \wedge \begin{bmatrix} \text{SUBJ} & \langle \boxed{1} \rangle \end{bmatrix}$

c. $\textit{intrans-stem} \rightarrow \textit{subj-verb-stem} \wedge \begin{bmatrix} \text{ARG-S} & \langle \text{NP}[\textit{core}] \rangle \oplus \textit{list(non-core-np)} \end{bmatrix}$

d. $\textit{trans-stem} \rightarrow \textit{subj-verb-stem} \wedge \begin{bmatrix} \text{ARG-S} & \langle \text{NP}[\textit{core}], \text{NP}[\textit{core}], \ldots \rangle \end{bmatrix}$

e. $\textit{acc-canon-stem} \rightarrow \begin{bmatrix} \text{SUBJ} & \boxed{1} \\ \text{SPR} & \boxed{2} \\ \text{COMPS} & \boxed{3} \oplus \text{L} \\ \text{ARG-S} & \boxed{1} \oplus \boxed{2} \oplus \boxed{3} \end{bmatrix}$

f. $\textit{erg-canon-stem} \rightarrow \begin{bmatrix} \textit{intrans-stem} & \\ \text{SUBJ} & \boxed{1} \\ \text{SPR} & \boxed{2} \\ \text{COMPS} & \boxed{3} \oplus \text{L} \\ \text{ARG-S} & \boxed{1} \oplus \boxed{2} \oplus \boxed{3} \end{bmatrix} \bigvee \begin{bmatrix} \textit{trans-stem} & \\ \text{SUBJ} & \boxed{1} \\ \text{SPR} & \boxed{2} \\ \text{COMPS} & \langle \boxed{4} \rangle \oplus \boxed{3} \oplus \text{L} \\ \text{ARG-S} & \langle \boxed{4} \rangle \oplus \boxed{1} \oplus \boxed{2} \oplus \boxed{3} \end{bmatrix}$

(32) a. $\textit{eng-trans-stem} \rightarrow \textit{trans-stem} \wedge \textit{acc-canon-stem}$

b. $\textit{dyi-trans-stem} \rightarrow \textit{trans-stem} \wedge \textit{erg-canon-stem}$

c. $\textit{tob-trans-stem} \rightarrow \textit{trans-stem} \wedge (\textit{acc-canon-stem} \vee \textit{erg-canon-stem})$

3 Causatives

(33) a. Aani-p miiqqa-t qasu-nirar-p-a-i
Aani-ERG children-PL.ABS be.tired-say-IND-TR-3SG.3PL
'Aani said that the children were tired.'

b. Hansi-p miiqqat uan-nut
Hansi-ERG children.PL.ABS me-TERM
paari-tip-pai
look.after-CAUS-IND.TR.3SG.3PL
'Hansi had me look after the children.'

(34) a. Kaali-p Pavia immi-nit
Kaali-ERG Pavia.ABS self-ABL
angi-nir-u-sinnaa-nngin-nirar-p-a-a
big-CMP-BE-can-NEG-say-IND-TR-3SG.3SG
'Kaali$_i$ said that Pavia$_j$ couldn't be taller than self$_{i/j}$.'

b. Juuna-p Kaali immi-nik uqaluttuup-p-a-a
Juuna-ERG Kaali.ABS self-INSTR tell-IND-TR-3SG.3SG
'Juuna$_i$ told Kaali$_j$ about self$_{i/*j}$.'

3.1 Japanese causatives

(35) a. *-(s)ase* is suffixed in the PHONOLOGY,

b. the stem's CONTENT is embedded as the third argument of the derivational form's CONTENT, which is a ternary *cause* predicate,

c. the SUBJ in the stem's lexical entry is replaced with a new complement (marked dative, or optionally accusative with intransitive stems), and a new SUBJ, the causer, is introduced.

(36) V

$$\begin{bmatrix} \textsc{phon} & \langle \text{tazune+sase} \rangle \\ \textsc{subj} & \langle \boxed{1}\text{NP}[\textsc{nom}]_i \rangle \\ \textsc{comps} & \langle \boxed{2}\text{NP}[\textsc{dat}]_j,\ \boxed{3}\text{NP}[\textsc{acc}]_k \rangle \\ \textsc{arg-s} & \langle \boxed{1}, \boxed{2}, \boxed{3} \rangle \\ \textsc{content} & \mathit{cause}_3(i,\ j,\ \mathit{visit}(j,\ k)) \end{bmatrix}$$

V

$$\begin{bmatrix} \textsc{phon} & \langle \text{tazune} \rangle \\ \textsc{subj} & \langle \boxed{4}\text{NP}[\textsc{nom}]_j \rangle \\ \textsc{comps} & \langle \boxed{3} \rangle \\ \textsc{arg-s} & \langle \boxed{4}, \boxed{3} \rangle \\ \textsc{content} & \mathit{visit}(j,\ k) \end{bmatrix}$$

-sase

tazune

3.1.1 Adverb scope

(37) Ken-wa Naomi-ni [hurui kutu-o sute-te] atarasii kutu-o
Ken-TOP Naomi-DAT old shoes-ACC throw new shoes-ACC
kaw-ase-ta.
buy-CAUS-PAST
'Ken made Naomi throw away her old shoes and buy new ones.'

(38) *tabe*

$$\begin{bmatrix} \textsc{arg-s} & \langle \text{NP}[\textsc{n}]_j,\ \text{NP}[\textsc{a}]_k \rangle \\ \textsc{content} & \mathit{eat(j,k)} \end{bmatrix} \Rightarrow$$

tabe

$$\begin{bmatrix} \textsc{arg-s} & \langle \text{NP}[\textsc{n}]_j,\ \text{NP}[\textsc{a}]_k,\ \text{ADV} \rangle \\ \textsc{content} & \text{ADV}'(\mathit{eat(j,k)}) \end{bmatrix}$$

(39) *tabe-sase*

$$\begin{bmatrix} \textsc{arg-s} & \langle \text{NP}[\textsc{n}]_i,\text{NP}[\textsc{d}]_j,\text{NP}[\textsc{a}]_k,\text{ADV} \rangle \\ \textsc{content} & \mathit{cause}_3(i,j,\text{ADV}'(\mathit{eat(j,k)})) \end{bmatrix}$$

(40) S

$$\begin{bmatrix} \textsc{subj} & \langle\ \rangle \\ \textsc{comps} & \langle\ \rangle \end{bmatrix}$$

NP[N]

$$\begin{bmatrix} \textsc{subj} & \langle\ \rangle \\ \textsc{comps} & \langle\ \rangle \end{bmatrix}$$

VP

$$\begin{bmatrix} \textsc{subj} & \langle \text{NP}[\textsc{n}] \rangle \\ \textsc{comps} & \langle\ \rangle \end{bmatrix}$$

Ken-wa

NP[D]

$$\begin{bmatrix} \textsc{subj} & \langle\ \rangle \\ \textsc{comps} & \langle\ \rangle \end{bmatrix}$$

VP

$$\begin{bmatrix} \textsc{subj} & \langle \text{NP}[\textsc{n}] \rangle \\ \textsc{comps} & \langle \text{NP}[\textsc{d}] \rangle \end{bmatrix}$$

Naomi-ni

AdvP

VP

$$\begin{bmatrix} \textsc{subj} & \langle \text{NP}[\textsc{n}] \rangle \\ \textsc{comps} & \langle \text{NP}[\textsc{d}],\ \text{AdvP} \rangle \end{bmatrix}$$

hurui kutu-o sute-te

NP[A]

$$\begin{bmatrix} \textsc{subj} & \langle\ \rangle \\ \textsc{comps} & \langle\ \rangle \end{bmatrix}$$

V

$$\begin{bmatrix} \textsc{subj} & \langle \text{NP}[\textsc{n}] \rangle \\ \textsc{comps} & \langle \text{NP}[\textsc{d}],\ \text{NP}[\textsc{a}],\ \text{AdvP} \rangle \end{bmatrix}$$

atarasii kutu-o

kawaseta

(41) Ken wa Naomi ni atarasii kutu o [hurui kutu o sute-te]
Ken TOP Naomi DAT new shoes ACC old shoes ACC throw
kaw-ase-ta.
buy-CAUS-PAST
'Ken made Naomi throw away old shoes and buy new shoes.'

3.1.2 Binding

(42) Zibun-zisin$_i$-ga hihan.s.are.ta koto-ga Taroo$_i$-o nayamaete-iru.
self-NOM was.criticized COMP-NOM Taroo-ACC bother-PROG
(lit.) 'The fact that self was criticized bothers Taroo.'

(43)

V

$\begin{bmatrix} \text{SUBJ} & \langle \boxed{1}\text{NP}[\text{NOM}]_i \rangle \\ \text{COMPS} & \langle \boxed{2}\text{NP}[\text{DAT}]_j, \boxed{3}\text{NP}[\text{ACC}]_k \rangle \\ \text{ARG-S} & \langle \boxed{1}, \boxed{2}, \boxed{3} \rangle \end{bmatrix}$

V

$\begin{bmatrix} \text{SUBJ} & \langle \boxed{4}\text{NP}[\text{NOM}]_j \rangle \\ \text{COMPS} & \langle \boxed{3} \rangle \\ \text{ARG-S} & \langle \boxed{4}, \boxed{3} \rangle \end{bmatrix}$

-sase

tazune

(44) Taroo$_i$ ga Ziroo$_j$ ni aete zibun-zisin$_{i/j}$ o hihans-ase-ta.
Taroo NOM Ziroo DAT purposefully self ACC criticize-CAUS-PAST
'Taroo purposefully made Ziroo criticize himself.' (Kitagawa 1986:(92))

(45) Taroo$_i$-wa Ziroo$_j$-ni $\emptyset_{i/*j}$ bengos-ase-ta.
Taroo-TOP Ziroo-DAT defend-CAUS-PAST
'Taroo$_i$ made Ziroo$_j$ defend him$_{i/*j}$.'

3.2 Extending the account to quantifier scope

(46) Tanaka-sensei-ga gakusei-ni sansatu hon-o yomaseta
Prof. Tanaka-NOM student-DAT three book-ACC read-CAUS-PAST
'Prof. Tanaka made the student read three books.'

(47) $\begin{bmatrix} \text{ARG-S} & \langle\, [\text{QS } \Sigma_1],\ldots,[\text{QS } \Sigma_n] \,\rangle \\ \text{QS} & \Sigma_1 \cup \ \ldots \ \ldots \ \cup \Sigma_n \end{bmatrix}$

(48)

S
$[\text{QS } \boxed{3}]$

$\boxed{1}$NP
$[\text{QS } \{\textbf{some-person}\}]$

some person

VP
$\begin{bmatrix} \text{QS} & \boxed{3} \\ \text{SUBJ} & \langle \boxed{1} \rangle \end{bmatrix}$

V
$\begin{bmatrix} \text{QS} & \boxed{3}\{\textbf{some-person}, \textbf{every-memo}\} \\ \text{ARG-S} & \langle \boxed{1}, \boxed{2} \rangle \end{bmatrix}$

reads

$\boxed{2}$NP
$[\text{QS } \{\textbf{every-memo}\}]$

every memo

(49)

$\begin{bmatrix} \text{QUANTS} & \boxed{1} \oplus \boxed{2} \\ \text{NUCLEUS} & \boxed{5} \\ \text{QSTORE} & \boxed{4} -! \ \boxed{2} \\ \text{RETRIEVED} & \text{order}(\boxed{2}) \end{bmatrix}$

SEM-HD

$\begin{bmatrix} \text{QUANTS} & \boxed{1} \\ \text{NUCLEUS} & \boxed{5} \\ \text{QSTORE} & \boxed{4} \end{bmatrix}$

(50)

S

$\begin{bmatrix} \text{QS} & \{\ \} \\ \text{QUANTS} & \text{order}(\{\textbf{some-person}, \textbf{every-memo}\}) \\ \text{NUCLEUS} & \boxed{4}\begin{bmatrix} \textit{read-rel} & \\ \text{READER} & \text{i} \\ \text{READ} & \text{j} \end{bmatrix} \end{bmatrix}$

$\boxed{1}$NP
$[\text{QS } \{\textbf{some-person}\}]$

some person

VP
$\begin{bmatrix} \text{QS} & \boxed{3} \\ \text{QUANTS} & \langle\ \rangle \\ \text{NUCLEUS} & \boxed{4} \\ \text{SUBJ} & \langle \boxed{1} \rangle \end{bmatrix}$

V
$\begin{bmatrix} \text{QS} & \boxed{3}\{\textbf{some-person}, \textbf{every-memo}\} \\ \text{ARG-S} & \langle \boxed{1}, \boxed{2} \rangle \\ \text{CONTENT} & \begin{bmatrix} \text{QUANTS} & \langle\ \rangle \\ \text{NUCLEUS} & \boxed{4} \end{bmatrix} \end{bmatrix}$

reads

$\boxed{2}$NP
$[\text{QS } \{\textbf{every-memo}\}]$

every memo

(51) $\begin{bmatrix} \textit{word} & \\ \text{PHON} & \langle \text{reads} \rangle \\ \text{ARG-S} & \langle\, \text{NP}_i[\text{QS } \boxed{1}], \text{NP}_j[\text{QS } \boxed{2}] \,\rangle \\ \text{QS} & (\boxed{1} \cup \boxed{2}) -! \ \boxed{3} \\ \text{CONTENT} & \begin{bmatrix} \text{QUANTS} & \text{order}(\boxed{3}) \\ \text{NUCLEUS} & \begin{bmatrix} \textit{read-rel} & \\ \text{READER} & \text{i} \\ \text{READ} & \text{j} \end{bmatrix} \end{bmatrix} \end{bmatrix}$

(52)
$$\left[\begin{array}{ll} \textit{v-stem} & \\ \text{PHON} & \langle \text{yom} \rangle \\ \text{ARG-S} & \langle\ \text{NP}_j[\text{QS } \boxed{1}],\ \text{NP}_k[\text{QS } \boxed{2}]\ \rangle \\ \text{QS} & (\boxed{1} \cup \boxed{2})\ -!\ \boxed{3} \\ \text{CONTENT} & \left[\begin{array}{ll} \text{QUANTS} & \text{order}(\boxed{3}) \\ \text{NUCLEUS} & \boxed{3}\left[\begin{array}{ll} \textit{read-rel} & \\ \text{READER} & \text{j} \\ \text{READ} & \text{k} \end{array}\right] \end{array}\right] \end{array}\right]$$

(53)
$$\left[\begin{array}{ll} \textit{cause-stem} & \\ \text{PHON} & \langle \text{yomaseta} \rangle \\ \text{ARG-S} & \langle\ \text{NP}_i[\text{QS } \boxed{4}],\ \text{NP}_j[\text{QS } \boxed{5}],\ \boxed{7}\ \rangle \\ \text{QS} & (\boxed{4} \cup \boxed{5})\ -!\ \boxed{6} \\ \text{CONTENT} & \left[\begin{array}{ll} \text{QUANTS} & \text{order}(\boxed{6}) \\ \text{NUCLEUS} & \left[\begin{array}{ll} \textit{cause-rel} & \\ \text{CAUSER} & \text{i} \\ \text{CAUSEE} & \text{j} \\ \text{SOA-ARG} & \boxed{3} \end{array}\right] \end{array}\right] \\ \text{STEM} & \left[\begin{array}{ll} \textit{v-stem} & \\ \text{PHON} & \langle \text{tabe} \rangle \\ \text{ARG-S} & \langle\ \text{NP}_j[\text{QS } \{\}],\ \boxed{7}\text{NP}_k[\text{QS } \{\boxed{2}\}]\ \rangle \\ \text{QS} & \{\} \\ \text{CONTENT} & \left[\begin{array}{ll} \text{QUANTS} & \langle \boxed{2} \rangle \\ \text{NUCLEUS} & \boxed{3}\left[\begin{array}{ll} \textit{read-rel} & \\ \text{READER} & \text{j} \\ \text{READ} & \text{k} \end{array}\right] \end{array}\right] \end{array}\right] \end{array}\right]$$

3.3 Crosslinguistic variation in causatives

3.3.1 Chi-Mwi:ni

(54) a. Mwa:limu wa-anḍik-ish-ize wa:na xaṭi
teacher$_i$ SP.OP-write-CAUS-ASP children$_j$ letter$_k$
'The teacher made the children write a letter.'

b.
$$\left[\begin{array}{ll} \text{SUBJ} & \langle \boxed{1}_i \rangle \\ \text{COMPS} & \langle \boxed{2}_j, \boxed{3}_k \rangle \\ \text{ARG-S} & \langle \boxed{1}\text{NP}_i, \boxed{2}\text{NP}_j, \boxed{3}\text{NP}_k \rangle \end{array}\right]$$

(55) a. Wa:na wa-anḍik-ish-iz-a: xaṭi na mwa:limu
children SP-write-CAUS-PASS-ASP letter by teacher
'The children were made to write a letter by the teacher.'

b. *Xaṭi a-anḍik-ish-iz-a wa:na na mwa:limu
letter SP-write-CAUS-PASS-ASP children by teacher

c.
$${}_{\textit{passive-stem}}\left[\begin{array}{ll} \text{SUBJ} & \langle \boxed{2}_j \rangle \\ \text{COMPS} & \langle \boxed{3}_k, \boxed{7}\text{PP}[\textit{na}]_i \rangle \\ \text{ARG-S} & \langle \boxed{2}_j, \boxed{3}_k, \boxed{7}_i \rangle \\ \text{CONT} & \boxed{4} \\ \text{STEM} & {}_{\textit{caus-stem}}\left[\begin{array}{ll} \text{SUBJ} & \langle \boxed{1}_i \rangle \\ \text{COMPS} & \langle \boxed{2}_j, \boxed{3}_k \rangle \\ \text{ARG-S} & \langle \boxed{1}_i, \boxed{2}_j \rangle \\ \text{CONT} & \boxed{4}\ {}_{\textit{cause-rel}}\left[\begin{array}{ll} \text{CAUSER} & i \\ \text{CAUSEE} & j \\ \text{SOA-ARG} & \boxed{5}\ {}_{\textit{write-rel}}\left[\begin{array}{ll} \text{WRITER} & j \\ \text{WRITTEN} & k \end{array}\right] \end{array}\right] \\ \text{STEM} & {}_{\textit{trans-verb}}\left[\begin{array}{ll} \text{SUBJ} & \langle \boxed{6}_j \rangle \\ \text{COMPS} & \langle \boxed{3}_k \rangle \\ \text{ARG-S} & \langle \boxed{6}_j, \boxed{3}_k \rangle \\ \text{CONT} & \boxed{5} \end{array}\right] \end{array}\right] \end{array}\right]$$

(56)
$${}_{\textit{caus-stem-1}}\left[\begin{array}{ll} \text{COMPS} & \langle - \rangle \oplus \text{L} \\ \text{ARG-S} & \langle \boxed{1}_i, \boxed{2}_j \rangle \\ \text{CONT} & {}_{\textit{cause-rel}}\left[\begin{array}{ll} \text{CAUSER} & i \\ \text{CAUSEE} & j \\ \text{SOA-ARG} & \boxed{5} \end{array}\right] \\ \text{STEM} & {}_{\textit{verb-stem}}\left[\begin{array}{ll} \text{ARG-S} & \langle \boxed{6}_j \rangle \oplus \text{L} \\ \text{CONT} & \boxed{5} \end{array}\right] \end{array}\right]$$

(57)
$$ {}_{\textit{acc-caus-stem-1}}\begin{bmatrix} \text{SUBJ} & \langle \boxed{1} \rangle \\ \text{COMPS} & \langle \boxed{2} \rangle \oplus \text{L} \\ \text{ARG-S} & \langle \boxed{1}_i, \boxed{2}_j \rangle \\ \text{CONT} & {}_{\textit{cause-rel}}\begin{bmatrix} \text{CAUSER} & i \\ \text{CAUSEE} & j \\ \text{SOA-ARG} & \boxed{5} \end{bmatrix} \\ \text{STEM} & {}_{\textit{verb-stem}}\begin{bmatrix} \text{ARG-S} & \langle \boxed{6}_j \rangle \oplus \text{L} \\ \text{CONT} & \boxed{5} \end{bmatrix} \end{bmatrix} $$

(58) a. Mi m-p^{h}ik-ish-iz-e ru:hu-y-a cha:kuja
I SP-cook-CAUS-ASP myself food
'I made myself cook food.'

b. Mi ni-m-big-ish-iz-e mwa:na ru:hu-y-é
I SP-OP-hit-CAUS-ASP child himself
'I made the child hit himself.'

c. *Mi ni-m-big-ish-iz-e Ałi ru:hu-y-á
I SP-OP-hit-CAUS-ASP Ali myself

(59) a. Jean lui est fidèle.
'Jean is faithful to him/her.'

b. *Jean s'est fidèle.
'Jean is faithful to himself.'

(60) a. Il$_i$ lui$_j$ fait donner un livre aux enfants.
'He$_i$ makes the kids give him$_j$ a book.'

b. *Il$_i$ se$_i$ fait donner un livre aux enfants.
'He$_i$ makes the kids give him$_i$ a book.'

(61)
$$ {}_{\textit{passive-stem}}\begin{bmatrix} \text{ARG-S} & \langle \boxed{2} \rangle \oplus \text{L} \ (\oplus \langle \boxed{3}_i \rangle \ ) \\ \text{CONT} & \boxed{4} \\ \text{STEM} & {}_{\textit{transitive-stem}}\begin{bmatrix} \text{ARG-S} & \langle \boxed{1}_i, \boxed{2}, \ldots \rangle \\ \text{COMPS} & \langle - \rangle \oplus \text{L} \\ \text{CONT} & \boxed{4} \end{bmatrix} \end{bmatrix} $$

3.3.2 Turkish and Inuit

(62) a.
$$ \textit{caus-stem-2} \rightarrow {}_{\textit{intr-stem}}\begin{bmatrix} \text{COMPS} & \langle - \rangle \oplus \text{L} \\ \text{ARG-S} & \langle \boxed{1}_i, \boxed{2}_j \rangle \\ \text{CONT} & {}_{\textit{cause-rel}}\begin{bmatrix} \text{CAUSER} & i \\ \text{CAUSEE} & j \\ \text{SOA-ARG} & \boxed{5} \end{bmatrix} \\ \text{STEM} & \begin{bmatrix} \text{ARG-S} & \langle \boxed{6}_j \rangle \oplus \text{L} \\ \text{CONT} & \boxed{5} \end{bmatrix} \end{bmatrix} \bigvee {}_{\textit{trans-stem}}\begin{bmatrix} \text{COMPS} & \langle - \rangle \oplus \langle \boxed{4}_j \rangle \oplus \text{L} \\ \text{ARG-S} & \langle \boxed{1}_i, \boxed{2}_k \rangle \\ \text{CONT} & {}_{\textit{cause-rel}}\begin{bmatrix} \text{CAUSER} & i \\ \text{CAUSEE} & j \\ \text{SOA-ARG} & \boxed{5} \end{bmatrix} \\ \text{STEM} & \begin{bmatrix} \text{ARG-S} & \langle \boxed{6}_j, \boxed{7}_k \rangle \oplus \text{L} \\ \text{CONT} & \boxed{5} \end{bmatrix} \end{bmatrix} $$

b.
$$ {}_{\textit{acc-caus-stem-2}}\begin{bmatrix} \text{SUBJ} & \langle \boxed{1}_i \rangle \\ \text{COMPS} & \langle \boxed{2}, \boxed{3}_j \rangle \oplus \text{L} \\ \text{ARG-S} & \langle \boxed{1}_i, \boxed{2} \rangle \\ \text{CONT} & {}_{\textit{cause-rel}}\begin{bmatrix} \text{CAUSER} & i \\ \text{CAUSEE} & j \\ \text{SOA-ARG} & \boxed{5} \end{bmatrix} \\ \text{STEM} & {}_{\textit{trans-stem}}\begin{bmatrix} \text{ARG-S} & \langle \boxed{6}_j, \boxed{2} \rangle \oplus \text{L} \\ \text{CONT} & \boxed{5} \end{bmatrix} \end{bmatrix} $$

(63) a. Bavul Mehmet tarafɨndan Hasan-a aç-tɨr-ɨl-dɨ
suitcase Mehmet by Hasan-DAT open-CAUS-PASS-PAST
'The suitcase was caused by Mehmet to be opened by Hasan.'

b. *Hasan Mehmet tarafɨndan bavul-u aç-tɨr-ɨl-dɨ
Hasan Mehmet by suitcase-ACC open-CAUS-PASS-PAST
*'Hasan was caused by Mehmet to open the suitcase.'

(64) a. Juuna-p miiqqat paar(i-v)-ai
Juuna-ERG child.PL look.after-IND-TR-3SG.3PL
'Juuna is looking after the children.'

b.
$$ \begin{bmatrix} \text{SUBJ} & \langle \boxed{2}_j \rangle \\ \text{COMPS} & \langle \boxed{1}_i \rangle \\ \text{ARG-S} & \langle \boxed{1}_i, \boxed{2}_j \rangle \\ \text{CONT} & {}_{\textit{looking-after}}\begin{bmatrix} \text{CARER} & i \\ \text{CARED-FOR} & j \end{bmatrix} \end{bmatrix} $$

(65) Aani-p miiqqa-t Juuna-mut paari-sur(i-v)-ai
Aani-ERG child-PL Juuna-TERM look.after-think-TR-3SG.3PL
'Aani thinks that Juuna is looking after the children.'

(66)

$$ {}_{\textit{erg-caus-stem-2}}\left[\begin{array}{ll} \text{SUBJ} & \langle \boxed{2} \rangle \\ \text{COMPS} & \langle \boxed{1}_i, \boxed{3}_j \rangle \oplus \mathrm{L} \\ \text{ARG-S} & \langle \boxed{1}_i, \boxed{2} \rangle \\ \text{CONT} & {}_{\textit{cause-rel}}\left[\begin{array}{ll} \text{CAUSER} & i \\ \text{CAUSEE} & j \\ \text{SOA-ARG} & \boxed{5} \end{array}\right] \\ \text{STEM} & {}_{\textit{trans-stem}}\left[\begin{array}{ll} \text{ARG-S} & \langle \boxed{6}_j, \boxed{2} \rangle \oplus \mathrm{L} \\ \text{CONT} & \boxed{5} \end{array}\right] \end{array}\right] $$

(67) a. ammit Jaaku-mit qimmi-nut niri-tsaali-niqar-p-u-t
skin.PL.ABS Jaaku-ABL dog-PL.TERM eat-prevent-PASS-IND-INTR-3PL
lit. 'The skins$_i$ were prevented by Jaaku from the dogs eating t_i.'

b.

$$ {}_{\textit{passive-stem}}\left[\begin{array}{ll} \text{SUBJ} & \langle \boxed{2}\mathrm{NP}[\textit{abs}]_k \rangle \\ \text{COMPS} & \langle \boxed{3}\mathrm{NP}[\textit{term}]_j, \boxed{7}\mathrm{NP}[\textit{abl}]_i \rangle \\ \text{ARG-S} & \langle \boxed{2}_k, \boxed{7}_i \rangle \\ \text{CONT} & \boxed{4} \\ \text{STEM} & {}_{\textit{caus-stem-2}}\left[\begin{array}{ll} \text{SUBJ} & \langle \boxed{2}_k \rangle \\ \text{COMPS} & \langle \boxed{1}_i, \boxed{3}_j \rangle \\ \text{ARG-S} & \langle \boxed{1}_i, \boxed{2}_k \rangle \\ \text{CONT} & \boxed{4}\, {}_{\textit{prevent-rel}}\left[\begin{array}{ll} \text{PREVENTER} & i \\ \text{PREVENTEE} & j \\ \text{SOA-ARG} & \boxed{5}\, {}_{\textit{eat-rel}}\left[\begin{array}{ll} \text{EATER} & j \\ \text{EATEN} & k \end{array}\right] \end{array}\right] \\ \text{STEM} & {}_{\textit{erg-trans-vb}}\left[\begin{array}{ll} \text{SUBJ} & \langle \boxed{2}_k \rangle \\ \text{COMPS} & \langle \boxed{6}_j \rangle \\ \text{ARG-S} & \langle \boxed{6}_j, \boxed{2}_k \rangle \\ \text{CONT} & \boxed{5} \end{array}\right] \end{array}\right] \end{array}\right] $$

(68) a. Jaaku-p ammit qimmi-nit
Jaaku-ERG skin.PL.ABS dog-PL.ABL
niri-niqa-tsaali-v-a-i
eat-PASS-prevent-IND-TR-3SG.3PL
'Jaaku prevented the skins from getting eaten by the dogs.'

b.

$$ {}_{\textit{caus-stem-2}}\left[\begin{array}{ll} \text{SUBJ} & \langle \boxed{2}\mathrm{NP}[\textit{abs}]_k \rangle \\ \text{COMPS} & \langle \boxed{1}\mathrm{NP}[\textit{erg}]_i, \boxed{7}\mathrm{NP}[\textit{abl}]_j \rangle \\ \text{ARG-S} & \langle \boxed{1}_i, \boxed{2}_k \rangle \\ \text{CONT} & {}_{\textit{prevent-rel}}\left[\begin{array}{ll} \text{PREVENTER} & i \\ \text{PREVENTEE} & k \\ \text{SOA-ARG} & \boxed{5}\, {}_{\textit{eat-rel}}\left[\begin{array}{ll} \text{EATER} & j \\ \text{EATEN} & k \end{array}\right] \end{array}\right] \\ \text{STEM} & {}_{\textit{passive-stem}}\left[\begin{array}{ll} \text{SUBJ} & \langle \boxed{2}_k \rangle \\ \text{COMPS} & \langle \boxed{7}_j \rangle \\ \text{ARG-S} & \langle \boxed{8}_k, \boxed{7}_j \rangle \\ \text{CONT} & \boxed{5} \\ \text{STEM} & {}_{\textit{erg-trans-vb}}\left[\begin{array}{ll} \text{SUBJ} & \langle \boxed{8}_k \rangle \\ \text{COMPS} & \langle \boxed{6}_j \rangle \\ \text{ARG-S} & \langle \boxed{6}_j, \boxed{8}_k \rangle \\ \text{CONT} & \boxed{5} \end{array}\right] \end{array}\right] \end{array}\right] $$

(69) a. Kaali-p Pavia immi-nit
Kaali-ERG Pavia.ABS self-ABL
angi-nir-u-sinnaa-nngin-nirar-p-a-a
big-CMP-BE-can-NEG-say-IND-TR-3SG.3SG
'Kaali$_i$ said that Pavia$_j$ couldn't be taller than self$_{i/j}$.'

b. Aalu-p Pavia-mut Suulut savim-mi-nik
Aalu-ERG Pavia-TERM Suulut.ABS knife-4SG-MOD
kapi-qqu-aa
stab-ask-IND.3SG.3SG
'Aalut$_i$ told Pavia$_j$ to stab Suulut$_k$ with his$_{i/j/*k}$ knife.'

The draft version of this paper is available at the URL http://www.lcl.cmu.edu/manning/papers/