HUMBOLDT-UNIVERSITÄT ZU BERLIN

Unmarked word order in the psych domain: Contrasting Spanish & Korean

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Contents

Introduction

Psych verbs

verbs denoting a relation between two arguments, one argument bearing the theta role experiencer and the other stimulus

(1) love, fear, frighten

Experiencer (EXP)

animate individual affected by a psychological eventuality

Stimulus (STM)

+/− animate triggering the psychological state

- Psych verbs participate in a well-known alternation between STM and EXP:

(2) a. We$_{\text{EXP}}$ puzzled over Sue's remarks$_{\text{STM}}$. [ES]
b. Sue's remarks$_{\text{STM}}$ puzzled us$_{\text{EXP}}$. [EO]
(Landau, 2010)

- ES = Experiencer Subject
- EO = Experiencer Object

in the literature (Grimshaw 1990; Landau 2010; Reinhart 2002)

- ES structures show canonicity w.r.t. linearization:

(3) Peter$_{\text{NOM,EXP}}$ liebt Maria$_{\text{ACC,STM}}$. 'Peter loves Mary'

Canonical word order

"natural" linearization shown in transitive structures
(SUBJ$_{\text{NOM,AG}}$ > OBJ$_{\text{ACC,PAT}}$)

- Psych verbs in EO structures differ from canonical verbs (Arad 1998; Belleti and Rizzi 1988; Pesetsky 1995)
- EO (but not ES) verbs show exceptional syntactic properties (i.e. "psych effects") w.r.t. linearization, binding, passivisation, extraction, etc. (see Verhoeven 2010; Verhoeven 2014; Temme and Verhoeven 2016)

- EO structures frequently appear with two case-marking patterns:

(4) Das Buch interessiert Maria$_{\text{EXP}}$. 'The book interests Mary' [EO$_{\text{ACC}}$]

(5) Maria$_{\text{EXP}}$ gefällt das Buch. 'Mary likes the book' [EO$_{\text{DAT}}$]

- Case marking correlates with different linearization properties.

EO$_{\text{ACC}}$ order:	STM	>	EXP	← unmarked word order (i.e. preferred word order)
	EXP	>	STM	
EO$_{\text{DAT}}$ order:	STM	>	EXP	
	EXP	>	STM	← unmarked word order (i.e. preferred word order)

- in numerous languages: German (Primus 2004), German, Greek, Hungarian, Korean (Temme and Verhoeven 2016), Spanish (Gattei et al. 2015; Jiménez-Fernández and Rozwadowska 2017)

Research Questions

- How can we model . . .
  - . . . the alternation of the experiencer (EO vs. ES),
  - . . . the case alternation in EO structures (ACC vs. DAT),
  - . . . the different readings of the STM, and
  - . . . the different linearization patterns (unmarked word orders) shown for the distinct configurations?
- In order to answer those questions:
  - Spanish (SVO) & Korean (SOV)
  - Examine linearization (i.e. unmarked word order) in terms of:
    - Case alternation
    - Event structure
    - Theta-roles
  - HPSG framework

Psych verbs: Spanish

EO class 1: *gustar* 'to like'

- stative and non-agentive (Landau 2010; Reinhart 2002)
- unmarked WO (cf. (6)): DAT-EXP > NOM-STM
- STM-role: SM

(6) [A Clara]$_{\text{DAT}}$ le gusta David/el reporte.
to Clara CL.DAT like.PRS.3.SG David/the report
'Clara likes David/the report.'

Subject Matter (SM)

Argument which provokes an emotional response in the EXP, but does not necessarily cause the emotion directly. (cf. Pesetsky, 1995)

EO class 1 & 3: *asustar* 'to frighten'

- stative: DAT structure (7a)
  unmarked WO: DAT-EXP > NOM-SM
- eventive: ACC structure (7b)
  unmarked WO: NOM-CSR > ACC-EXP (cf. Marín, 2011)

(7) a. [A Clara]$_{\text{DAT}}$ le asusta David/el reporte.
to Clara CL.DAT frighten.PRS.3.SG David/the report
'(Something about) David/the report frightens Clara.'

b. David/el reporte (la) asusta [a Clara]$_{\text{ACC}}$.
David/the report CL.ACC frighten.PRS.3.SG to Clara
'David/the report frightens (directly) Clara.'

Causer (CSR)

direct causer of the emotion (cf. Pesetsky, 1995)

ES class 2 & 4: *amar* 'to love'

- stative: ACC and DAT structure (cf. (8a) & (8b))
- unmarked WO for ACC structure: NOM-EXP > ACC-TG (cf. (8a))
- unmarked WO for DAT structure: NOM-EXP > DAT-SM (cf. (8b))

(8) a. David (lo) ama [a Pedro]$_{\text{ACC}}$.
David CL.ACC love.PRS.3.SG to Peter
'David loves Peter.'

b. David (le) ama [a Pedro]$_{\text{DAT}}$.
David CL.DAT love.PRS.3.SG to Peter
'David loves (something about) Peter.'

Target (TG)

argument evaluated positively or negatively by the EXP (cf. Pesetsky, 1995)

ES class 2 & 4: *temer* 'to fear'

- stative: ACC and DAT structure (cf. (9a) & (9b))
- unmarked WO for ACC structure: NOM-EXP > ACC-TG (cf. (8a))
- unmarked WO for DAT structure: NOM-EXP > DAT-SM (cf. (8b))

(9) a. David (lo) teme [a Pedro]$_{\text{ACC}}$.
David CL.ACC fear.PRS.3.SG to Peter
'David fears Peter.'

b. David (le) teme [a Pedro]$_{\text{DAT}}$.
David CL.DAT fear.PRS.3.SG to Peter
'David fears (something about) Peter.'

Summary – Spanish

	type	θ role & case		eventuality	unmarked WO	class
		stm	exp			
gustar	EO	SM-NOM	DAT	state (−CoS)	EXP-DAT > SM-NOM	1
asustar	EO	SM-NOM	DAT	state (−CoS)	EXP-DAT > SM-NOM	1
		CSR-NOM	ACC	event (+CoS)	CSR-NOM > EXP-ACC	3
amar	ES	TG-ACC	NOM	state (−CoS)	EXP-NOM > TG-ACC	2
		?SM-DAT	NOM	state (−CoS)	EXP-NOM > SM-DAT	4
temer	ES	?TG-ACC	NOM	state (−CoS)	EXP-NOM > TG-ACC	2
		SM-DAT	NOM	state (−CoS)	EXP-NOM > SM-DAT	4

- We propose – at least for Spanish – a **fourfold** classification of psych verbs (in contrast to the threefold classification proposed e.g. in Belleti and Rizzi (1988))

- The data suggest that not only the EXP alternates w.r.t. case (in EO structures), but also that the STM **alternates w.r.t. case** (in **ES structures**)
- Asymmetry depends on the theta-role of the STM
  - In EO structures, EXP alternates between:
    → DAT: the STM is perceived as a SM and [−agentive]
    → ACC: the STM is perceived as a CSR and when [+animate] has volitionality
    (cf. Fábregas et al., 2017)
  - In ES structures, STM alternates between:
    → DAT (cf. (10)): perceived as SM, SM does not cause the emotion directly, and possibility of adding an extra argument (i.e. TG)

(10) Pedro le ama [a Clara]$_{\text{SM-DAT}}$ ([las manos]$_{\text{TG-ACC}}$).
Pedro CL.DAT love.PRS.3.SG to Clara the hands
'Pedro loves Clara, the hands.'

- In ES structures, STM alternates between:
  → ACC (cf. (11)): perceived as TG (cf. Seres and Espinal 2018), TG is evaluated positively or negatively, and unavailibility of adding an extra argument (i.e. **target violation**: no two TG in same structure)

(11) Pedro la ama [a Clara]$_{\text{TG-ACC}}$ (*[las manos]$_{\text{TG-ACC}}$).
Pedro CL.ACC love.PRS.3.SG to Clara the hands
'Pedro loves Clara, the hands.'

HPSG & psych-verbs

- In HPSG the treatment of θ-roles is Davidsonian. (cf. Davidson, 1967; Koenig, 1999; Copestake et al., 2005; Müller, 2013)
- The meaning of a verb *to eat* could be represented as in (12).

(12)
$$\begin{bmatrix} \textsc{phon} & \langle \textit{eat} \rangle \\ \textsc{cont} & \begin{bmatrix} \textsc{ind} & \boxed{1}\ \textit{event} \\ \textsc{rels} & \left\langle \begin{bmatrix} \textsc{arg0} & \boxed{1}\ \textit{event} \\ \textsc{ag} & \textit{index} \\ \textsc{pat} & \textit{index} \\ & \textit{eat-rel} \end{bmatrix} \right\rangle \end{bmatrix} \end{bmatrix}$$

Problems

- As already mentioned, psych verbs bear two θ-roles: EXP and STM
- . . . but the STM can behave in different ways w.r.t. the predication: target (TG) or subject matter (SM).
- Since we have ES psych verbs like *amar* 'love' and *temer* 'fear' that show case alternation w.r.t. the θ-role they bear (i.e. TG vs. SM), we need underspecification of θ-roles in order to account for that fact in Spanish.

Theta-roles

- We are proposing to treat θ-roles as **values** (and not as features).

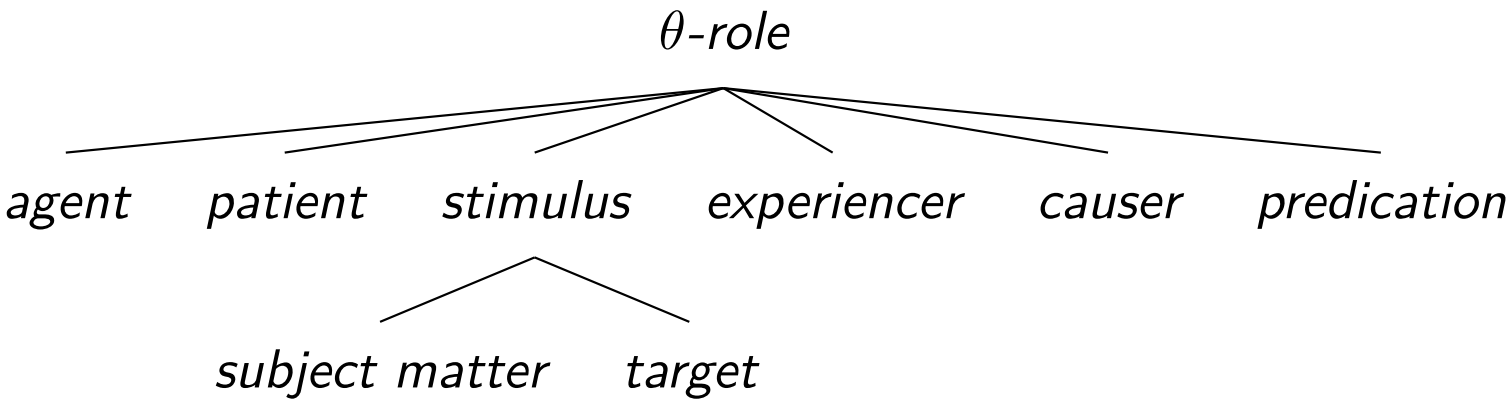


Figure: Type hierarchy for θ-*role*

Advantages:
Underspecified θ-roles allow . . .

- . . . generalisations about θ-roles
  - Which θ-roles are similar or have something in common?
- . . . generalisations about verb classes
  - Do we have verb classes alternating, e.g. in case, according to subtypes of θ-roles?
- In a further state of the theory, it is possible to define each θ-role by feature-value pairs, accounting for the commonalities and differences between them.
  - Do *agents* and (agentive) *causers* have similar qualities? And can we model that by means of inherited features?

Restructuring

- Restructuring the RELS attribute (again...)
- We are proposing a **neo-davidsonian** (cf. Parsons, 1990) structure for the RELS attribute. (cf. Schäfer, 2008)

(13) *eat-rel*:

$$\begin{bmatrix} \text{PHON} & \langle \textit{eat} \rangle \\ \text{CONT} & \begin{bmatrix} \text{IND} & \boxed{1}\ \textit{event} \\ \text{RELS} & \left\langle \begin{bmatrix} \text{ARG0} & \boxed{1}\ \textit{event} \\ \text{AG} & \textit{index} \\ \text{PAT} & \textit{index} \\ \textit{eat-rel} & \end{bmatrix} \right\rangle \end{bmatrix} \end{bmatrix}$$

$\approx \lambda y \lambda x \lambda e.eat'(y)(x)(e)$

(14) *eat-rel* (for now)

$$\begin{bmatrix} \text{RELS} & \left\langle \begin{bmatrix} \text{THT} & \textit{pred} \\ \text{ENT} & \boxed{1}\ \textit{evntlt} \\ \text{REL} & \textit{eat-rel} \\ \textit{pred-role} & \end{bmatrix}, \begin{bmatrix} \text{THT} & \textit{ag} \\ \text{ENT} & \textit{ind} \\ \text{EV} & \boxed{1} \\ \textit{arg-role} & \end{bmatrix}, \begin{bmatrix} \text{THT} & \textit{pat} \\ \text{ENT} & \textit{ind} \\ \text{EV} & \boxed{1} \\ \textit{arg-role} & \end{bmatrix} \right\rangle \end{bmatrix}$$

$\approx$

$\lambda y \lambda x \lambda e.eat'(e) \wedge ag(x)(e) \wedge pat(y)(e)$

- The value of REL is now related only to the actual predicate, and the predicate is not defined (anymore) in terms of its arguments.

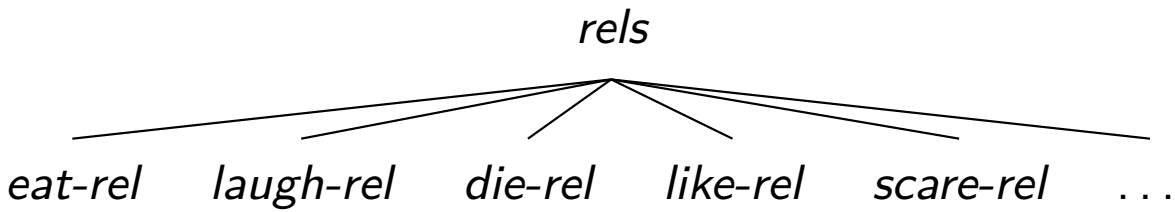


Figure: Type-hierarchy for *relations*

- With a NDA, it is possible to **manipulate the arguments** of a predicate, without having to assume a *new predicate*. This is useful for phenomena altering the semantic valence of predicates, without altering the core meaning of the predicate.

Analysis of Spanish psych verbs

- Solving the problems *lexically* (and not by means of syntactic structure)

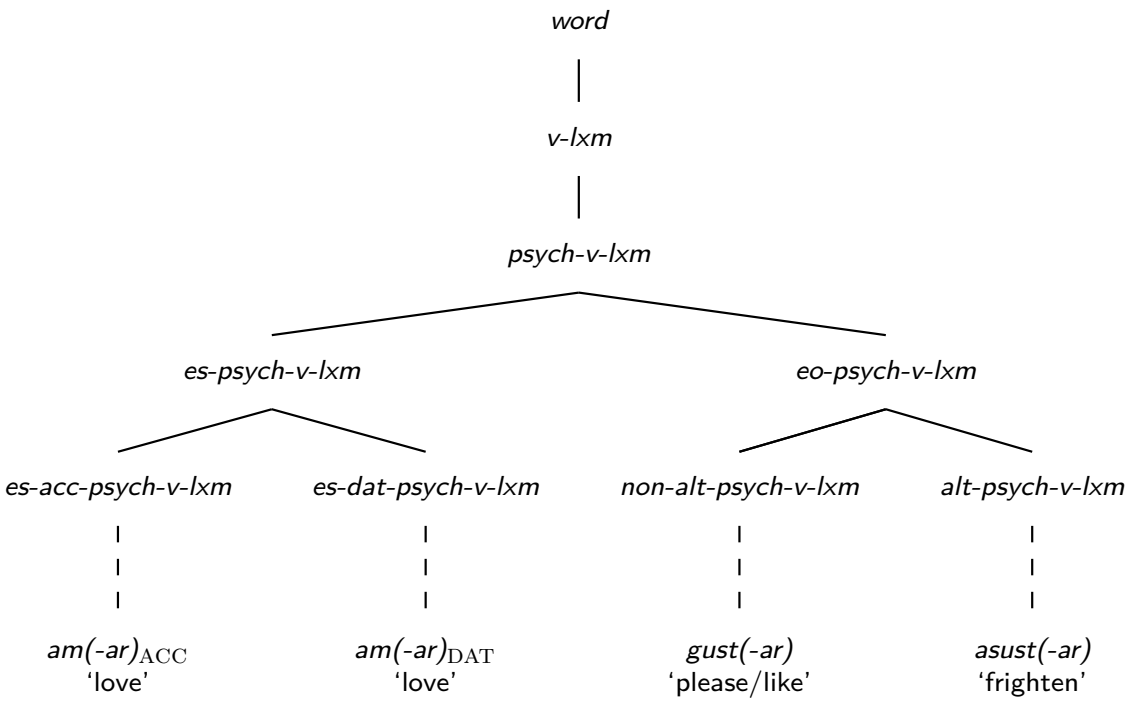
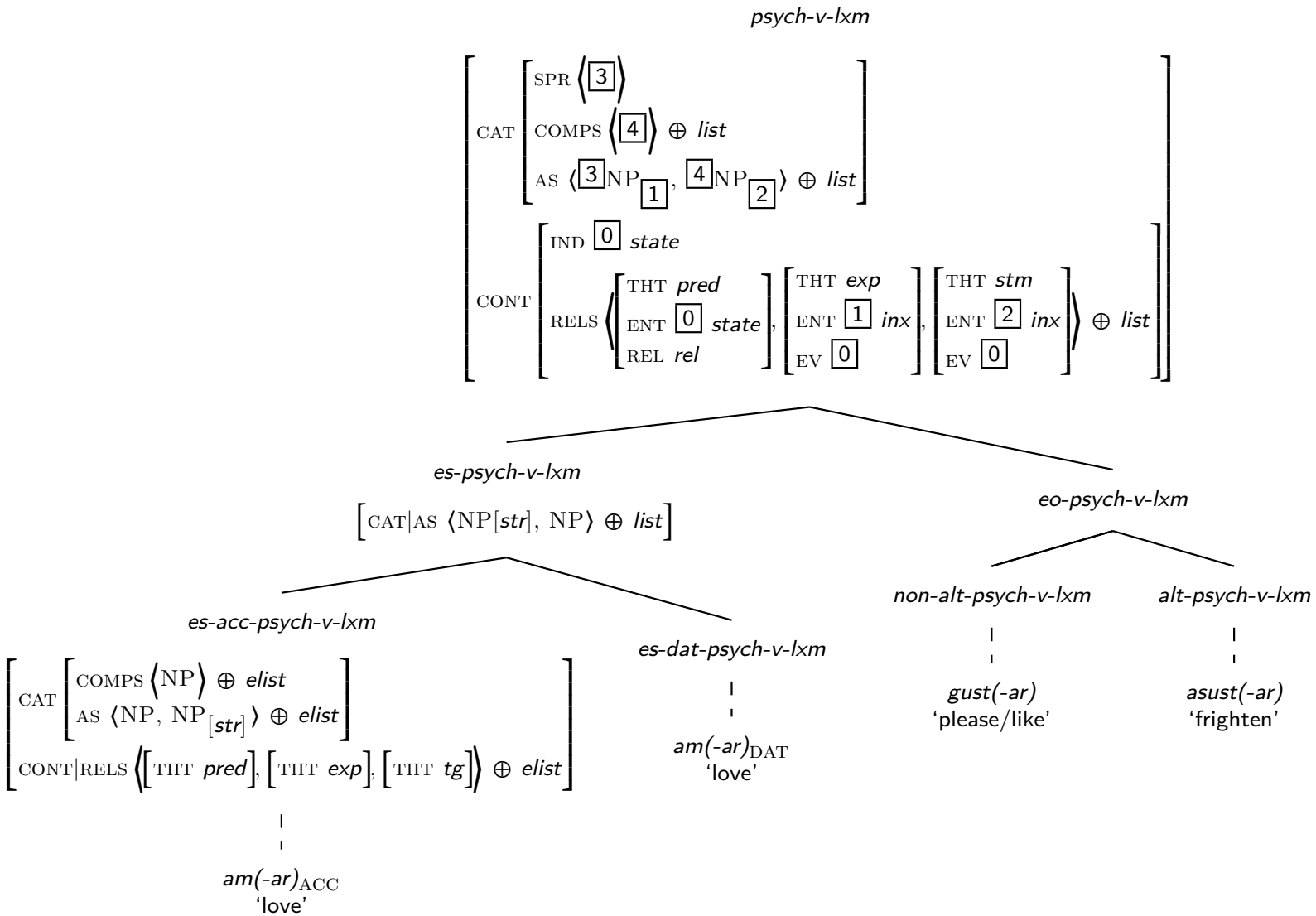
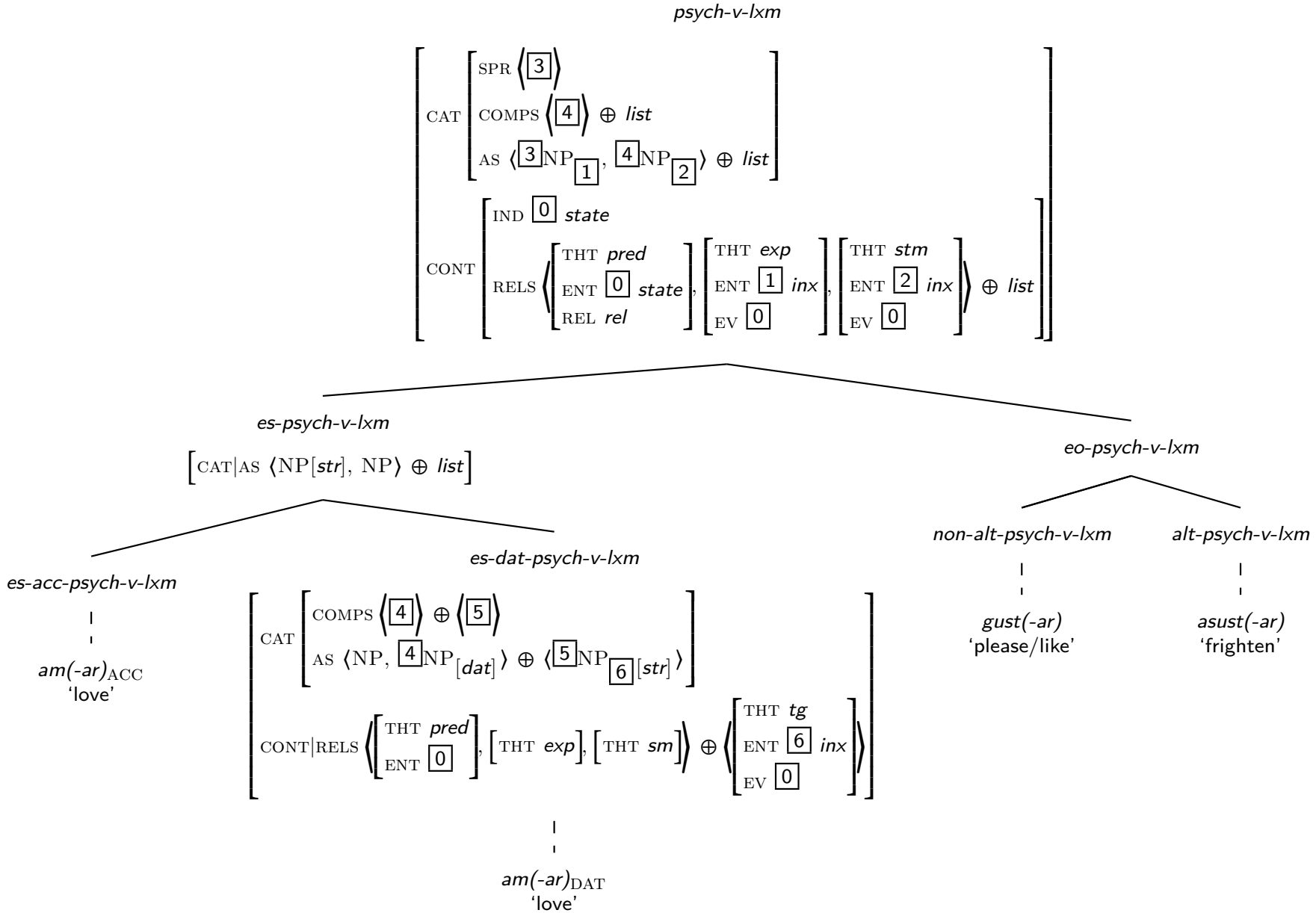
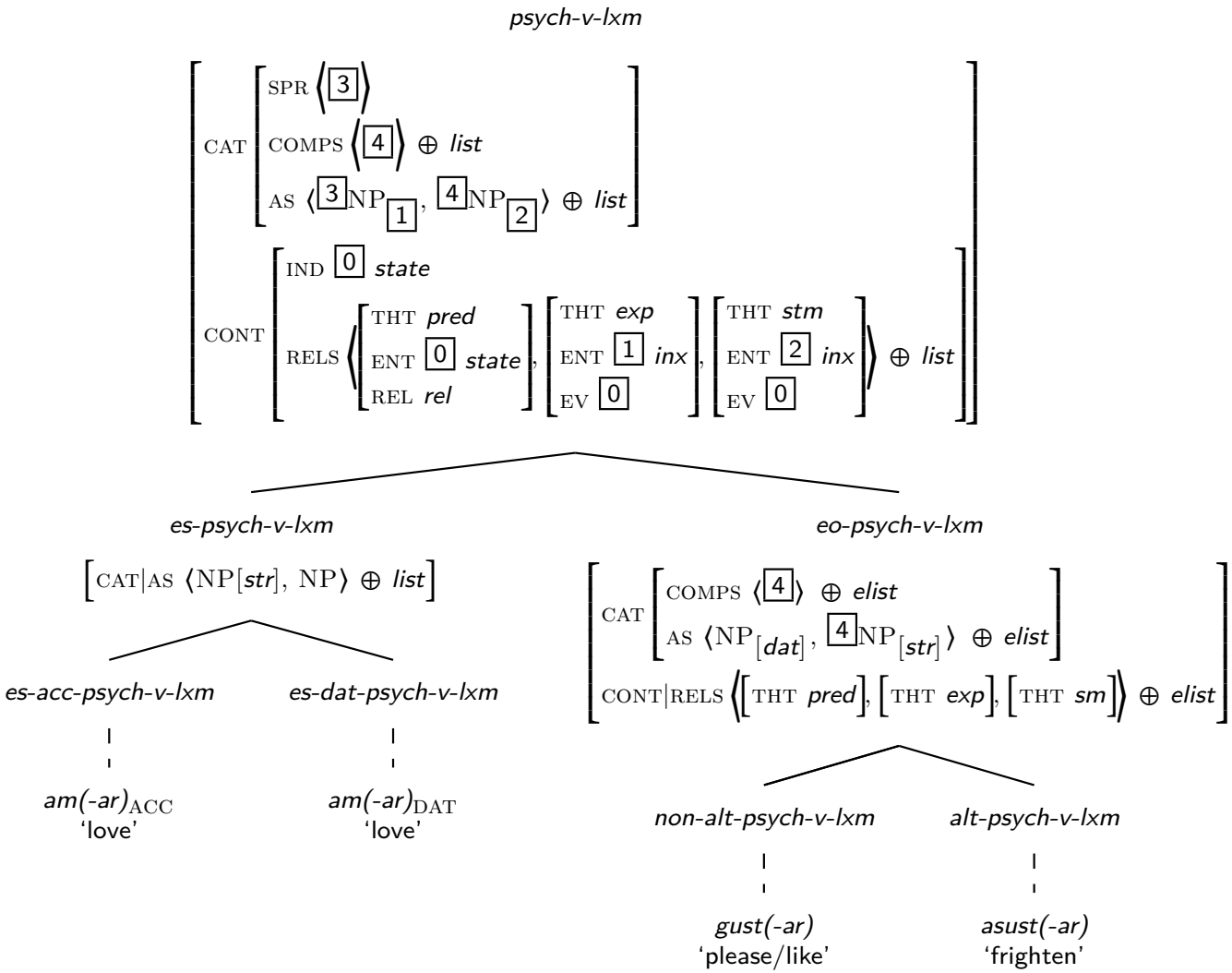


Figure: Psych-verb types in Spanish


psych-v-lxm
CAT
SPR ⟨ 3 ⟩
COMPS ⟨ 4 ⟩ ⊕ list
AS ⟨ 3 NP 1 , 4 NP 2 ⟩ ⊕ list
CONT
IND 0 state
RELS ⟨ THT pred, ENT 0 state, REL rel ⟩, ⟨ THT exp, ENT 1 inx, EV 0 ⟩, ⟨ THT stm, ENT 2 inx, EV 0 ⟩ ⊕ list
es-psych-v-lxm
[CAT|AS ⟨NP[str], NP⟩ ⊕ list]
eo-psych-v-lxm
es-acc-psych-v-lxm
CAT
COMPS ⟨NP⟩ ⊕ elist
AS ⟨NP, NP[str]⟩ ⊕ elist
CONT|RELS ⟨[THT pred], [THT exp], [THT tg]⟩ ⊕ elist
am(-ar)ACC
'love'
es-dat-psych-v-lxm
am(-ar)DAT
'love'
non-alt-psych-v-lxm
gust(-ar)
'please/like'
alt-psych-v-lxm
asust(-ar)
'frighten'


psych-v-lxm
[CAT [SPR ⟨3⟩ COMPS ⟨4⟩ ⊕ list AS ⟨3 NP[1], 4 NP[2]⟩ ⊕ list] CONT [IND 0 state RELS ⟨[THT pred ENT 0 state REL rel], [THT exp ENT 1 inx EV 0], [THT stm ENT 2 inx EV 0]⟩ ⊕ list]]
es-psych-v-lxm
[CAT|AS ⟨NP[str], NP⟩ ⊕ list]
eo-psych-v-lxm
es-acc-psych-v-lxm
am(-ar)ACC
'love'
es-dat-psych-v-lxm
[CAT [COMPS ⟨4⟩ ⊕ ⟨5⟩ AS ⟨NP, 4 NP[dat]⟩ ⊕ ⟨5 NP 6 [str]⟩] CONT|RELS ⟨[THT pred ENT 0], [THT exp], [THT sm]⟩ ⊕ ⟨[THT tg ENT 6 inx EV 0]⟩]
am(-ar)DAT
'love'
non-alt-psych-v-lxm
alt-psych-v-lxm
gust(-ar)
'please/like'
asust(-ar)
'frighten'


psych-v-lxm
CAT
SPR ⟨ 3 ⟩
COMPS ⟨ 4 ⟩ ⊕ list
AS ⟨ 3 NP 1 , 4 NP 2 ⟩ ⊕ list
CONT
IND 0 state
RELS ⟨ THT pred ENT 0 state REL rel , THT exp ENT 1 inx EV 0 , THT stm ENT 2 inx EV 0 ⟩ ⊕ list
es-psych-v-lxm
eo-psych-v-lxm
CAT|AS ⟨NP[str], NP⟩ ⊕ list
es-acc-psych-v-lxm
es-dat-psych-v-lxm
am(-ar)ACC
'love'
am(-ar)DAT
'love'
COMPS ⟨ 4 ⟩ ⊕ elist
AS ⟨ NP[dat] , 4 NP[str] ⟩ ⊕ elist
CONT|RELS ⟨ [THT pred], [THT exp], [THT sm] ⟩ ⊕ elist
non-alt-psych-v-lxm
alt-psych-v-lxm
gust(-ar)
'please/like'
asust(-ar)
'frighten'

So far, what are accounting for with the inheritance hierarchy?

	type	**θ role & case**		**eventuality**	**unmarked WO**	**class**
		stm	**exp**			
gustar	EO	SM-NOM	DAT	state (−CoS)	EXP-DAT > SM-NOM	1
asustar	EO	SM-NOM	DAT	state (−CoS)	EXP-DAT > SM-NOM	1
		CSR-NOM	ACC	event (+CoS)	CSR-NOM > EXP-ACC	3
amar	ES	TG-ACC	NOM	state (−CoS)	EXP-NOM > TG-ACC	2
		?SM-DAT	NOM	state (−CoS)	EXP-NOM > SM-DAT	4
temer	ES	?TG-ACC	NOM	state (−CoS)	EXP-NOM > TG-ACC	2
		SM-DAT	NOM	state (−CoS)	EXP-NOM > SM-DAT	4

- For *asustar* 'to frighten' we need a rule changing the case of the EXP and the unmarked word order.

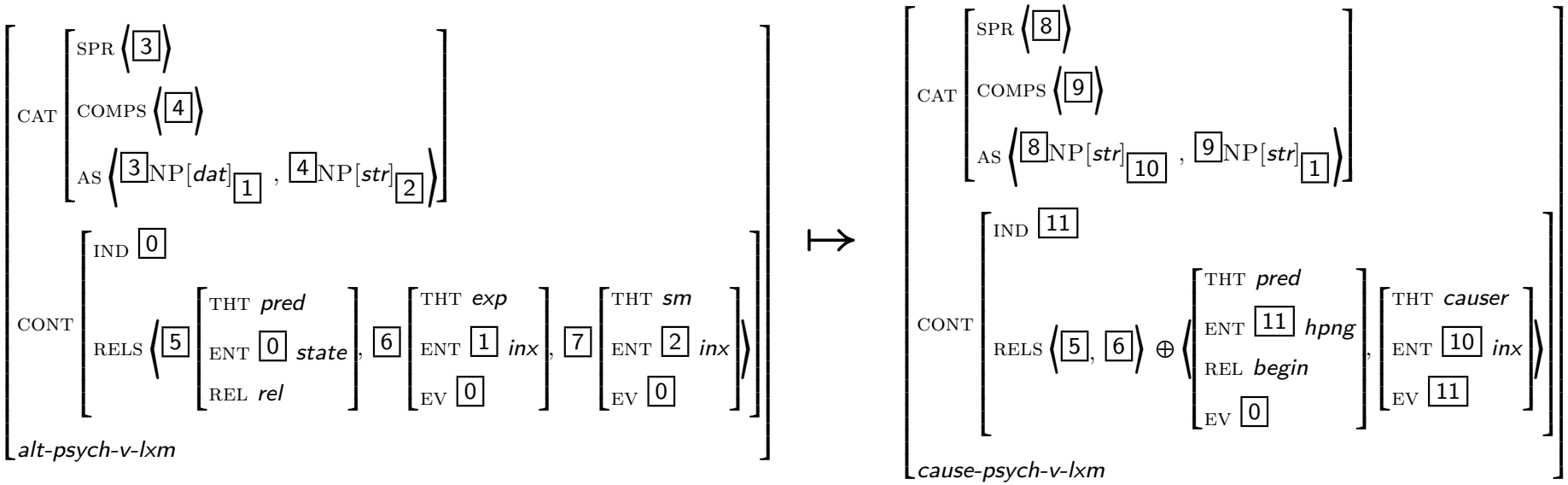


Figure: Lexical Rule: Case alternation for *alt-psych-vlxm*

Psych verbs: Korean

AEP class 1: *mwusepta* 'scary'

- stative and non-agentive (Choi 2015; Lee and Shin 2007)
- WO freezing effect (cf. (15)): NOM-EXP > NOM-STM
- STM-role: SM

(15) [Mina-ka/nun]$_{\text{EXP}}$ [kongpho yenghwa/Minho-ka]$_{\text{SM}}$ mwusep-ta.
Mina-NOM/TOP horror movie/Minho-NOM scary-DECL
'Mina is scared of horror movies/Minho.'

Agentive Experiencer Predicates (AEP)

Experiencer plays a role of agent in the experiential causing sub-event. (cf. Nam, 2015)

AEP class 2 *mwusepta* 'scary'

- stative and non-agentive
- free WO, but unmarked WO (cf. (16)): NOM-SM > DAT-EXP

(16) [kongpho yenghwa/Minho-ka/nun]$_{\text{SM}}$ [Mina-eykey]$_{\text{EXP}}$ mwusep-ta.
horror movie/Minho-NOM/TOP Mina-DAT scary-DECL
'The horror movie/Minho is scary to Mina.'

PEP class 3 *hwanata* 'get angry'

- inchoative (+change of state) (Choi 2015)
- WO freezing effect (cf. (17)): NOM-EXP > NOM-TG

(17) [Mina-ka/nun]$_{\text{EXP}}$ [Minho/khun soli-ka]$_{\text{TG}}$ hwana-n-ta.
Mina-NOM/TOP Minho/big noise-NOM get.angry-PRS-DECL
'Mina gets angry at Minho/the big noise.'

Patientive Experiencer Predicates (PEP)

Experiencer plays a role of patient or theme in the causing sub-event. (cf. Nam, 2015)

PEP class 4 *hwanata* 'get angry'

- inchoative (+change of state)
- free WO, but unmarked WO (cf. (18)): NOM-EXP > DAT-TG

(18) [Mina-ka/nun]$_{\text{EXP}}$ [Minho-eykey/khun soli-ey]$_{\text{TG}}$ hwana-n-ta.
Mina-NOM/TOP Minho/big noise-DAT get.angry-PRS-DECL
'Mina gets angry at Minho/the big noise.'

Summary – Korean

	type	θ role & case		eventuality	unmarked WO	class
		stm	exp			
mwusepta	AEP	SM-NOM	NOM	state (–CoS)	EXP-NOM > SM-NOM	1
		SM-NOM	DAT	state (–CoS)	SM-NOM > EXP-DAT	2
hwanata	PEP	TG-NOM	NOM	inch (+CoS)	EXP-NOM > TG-NOM	3
		TG-DAT	NOM	inch (+CoS)	EXP-NOM > TG-DAT	4

- We propose a **fourfold** classification of psych verbs in Korean (in contrast to the different classifications in the literature, e.g. in Conceptual Semantics Kim 2008; Choi 2015 and Yang 1996).
- Building on Nam (2015) (i.e. AEP vs. PEP), we take his case alternations patterns between NOM and DAT and correlate that in terms of theta-role assignment.

- Data demonstrate double nominative structures are more limited in the psych domain, allowing an alternation between NOM and TOP as structural case assignment (Yoon 2004).
- As in Spanish, there is an alternation in case for both EXP and STM.
- Asymmetry in case marking depends on the theta-role of the STM, but not of sub-event causation (cf. Nam 2015).
  - AEP class (e.g. *mwusepta* 'scary') includes pure (gradable) adjectives that take SM as arguments.
  - PEP class (e.g. *hwanata* 'get angry') includes verbal inherently inchoative items with a BECOME operator (cf. Choi and Demirdache 2014), taking TG as arguments.

- Contrary to Spanish, Korean psych verbs do not allow for the co-occurrence of SM and TG in the same structure (cf. (19a) for class – *mwusepta* and (19b) for class – *hwanata*).

(19) a. [Minho-ka]$_{\text{SM}}$ [*sengkyek-ul]$_{\text{TG}}$ Mina-eykey mwusep-ta.
Minho-NOM character-ACC Mina-DAT scary-DECL
'Minho his character is scary to Mina.'

b. [Mina-ka]$_{\text{TG}}$ [*sengkyek-ul]$_{\text{TG}}$ Minho-eykey hwana-n-ta.
Mina-NOM character-ACC Minho-DAT get.angry-PRS-DECL
'Mina gets angry at Minho his character.'

Analysis of Korean psych verbs

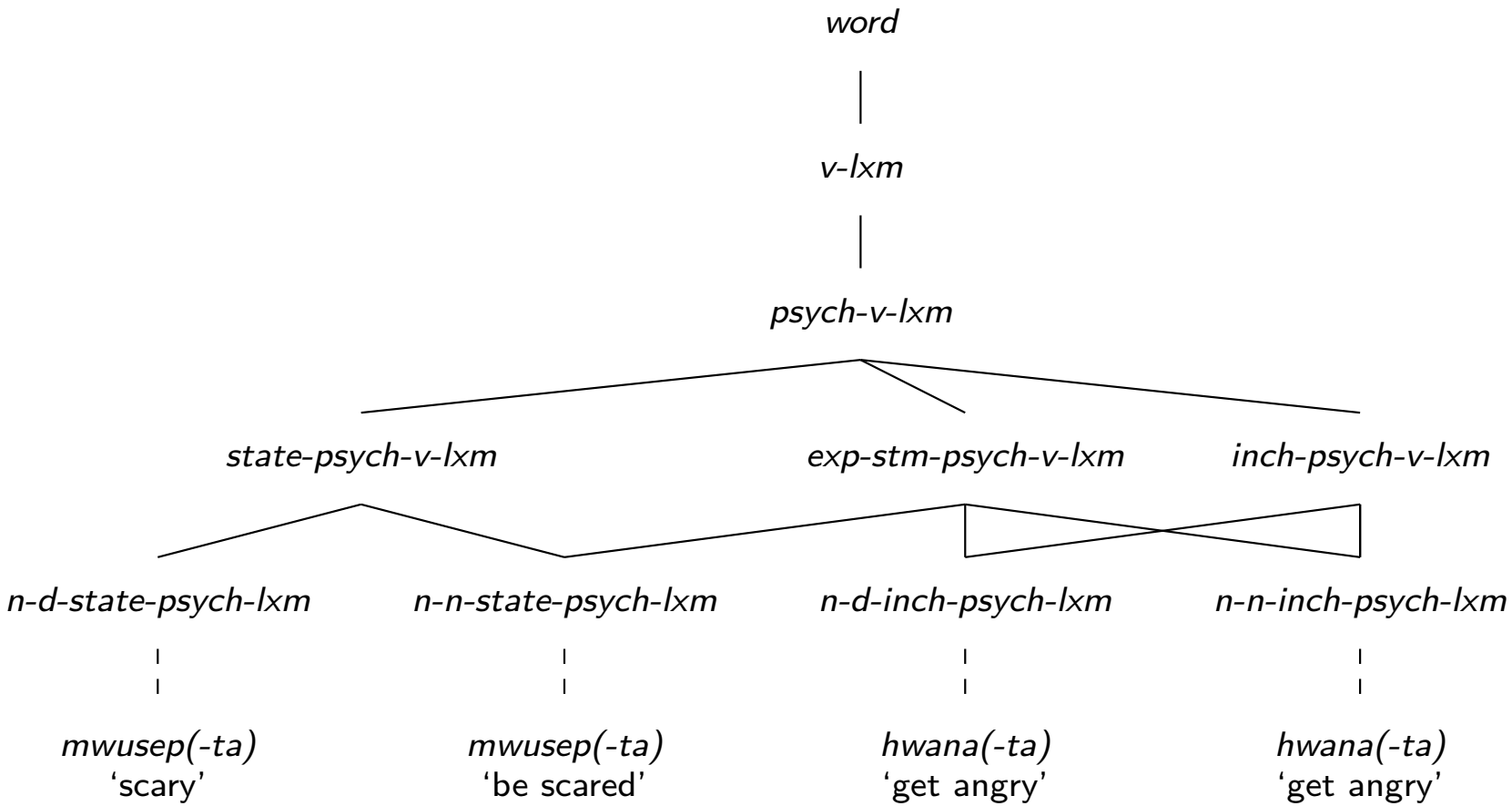
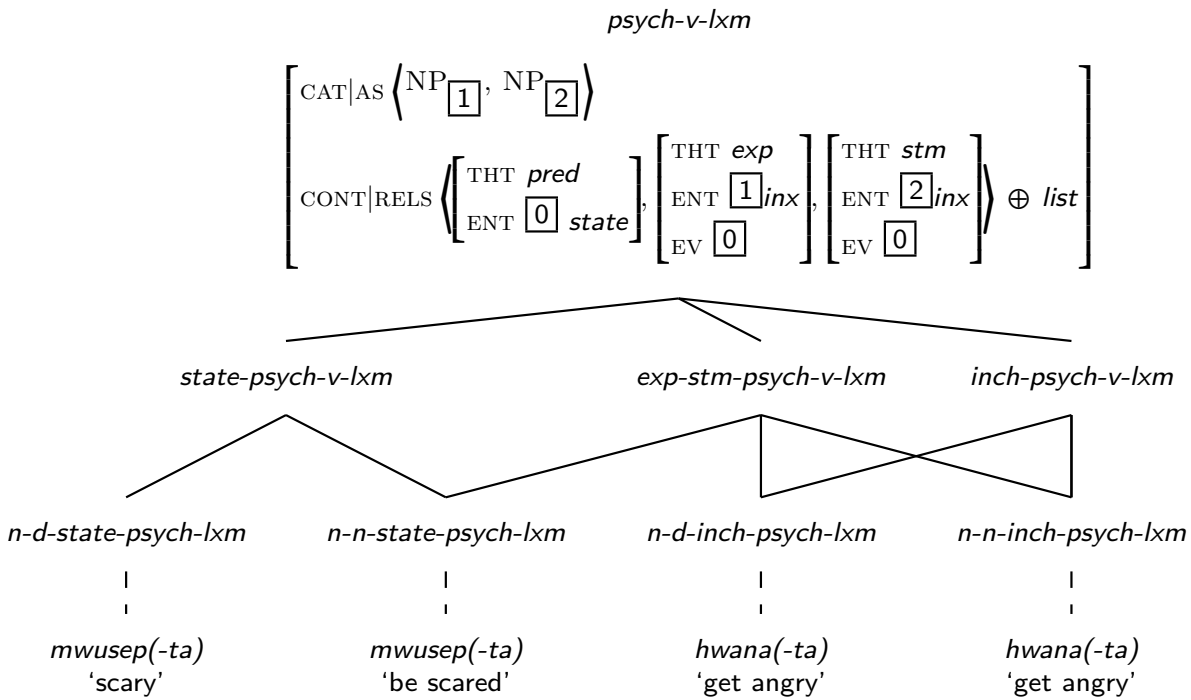


Figure: Psych-verb types in Korean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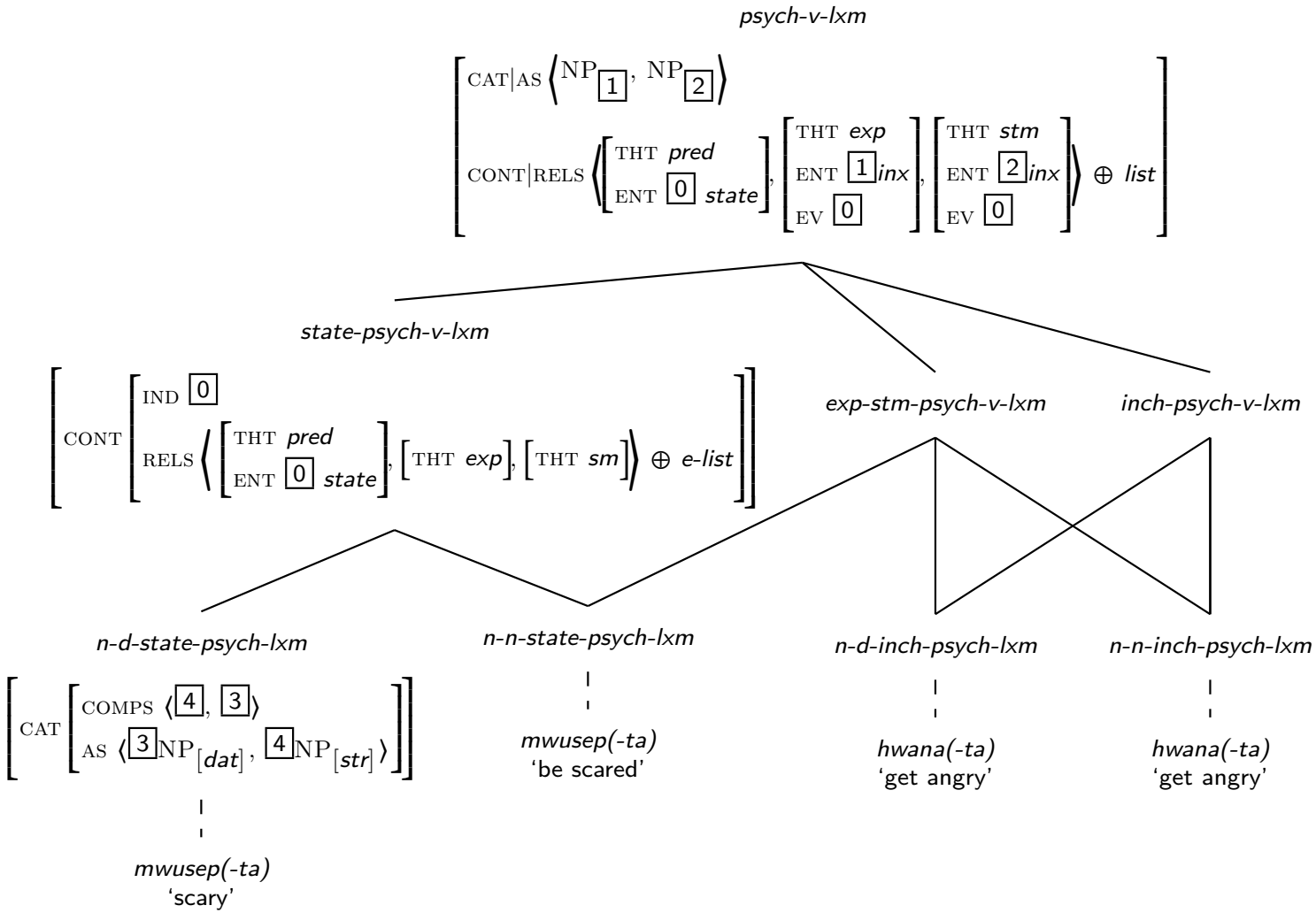
CAT|AS ⟨NP[1], NP[2]⟩
CONT|RELS ⟨[THT pred, ENT [0] state], [THT exp, ENT [1] inx, EV [0]], [THT stm, ENT [2] inx, EV [0]]⟩ ⊕ list
state-psych-v-lxm
exp-stm-psych-v-lxm
inch-psych-v-lxm
n-d-state-psych-lxm
n-n-state-psych-lxm
n-d-inch-psych-lxm
n-n-inch-psych-lxm
mwusep(-ta)
'scary'
mwusep(-ta)
'be scared'
hwana(-ta)
'get angry'
hwana(-ta)
'get angry'


psych-v-lxm
CAT|AS ⟨NP[1], NP[2]⟩
CONT|RELS ⟨[THT pred, ENT [0] state], [THT exp, ENT [1]inx, EV [0]], [THT stm, ENT [2]inx, EV [0]]⟩ ⊕ list
state-psych-v-lxm
CONT [IND [0], RELS ⟨[THT pred, ENT [0] state], [THT exp], [THT sm]⟩ ⊕ e-list]
exp-stm-psych-v-lxm
inch-psych-v-lxm
n-d-state-psych-lxm
CAT [COMPS ⟨[4], [3]⟩, AS ⟨[3]NP[dat], [4]NP[str]⟩]
n-n-state-psych-lxm
n-d-inch-psych-lxm
n-n-inch-psych-lxm
mwusep(-ta)
'scary'
mwusep(-ta)
'be scared'
hwana(-ta)
'get angry'
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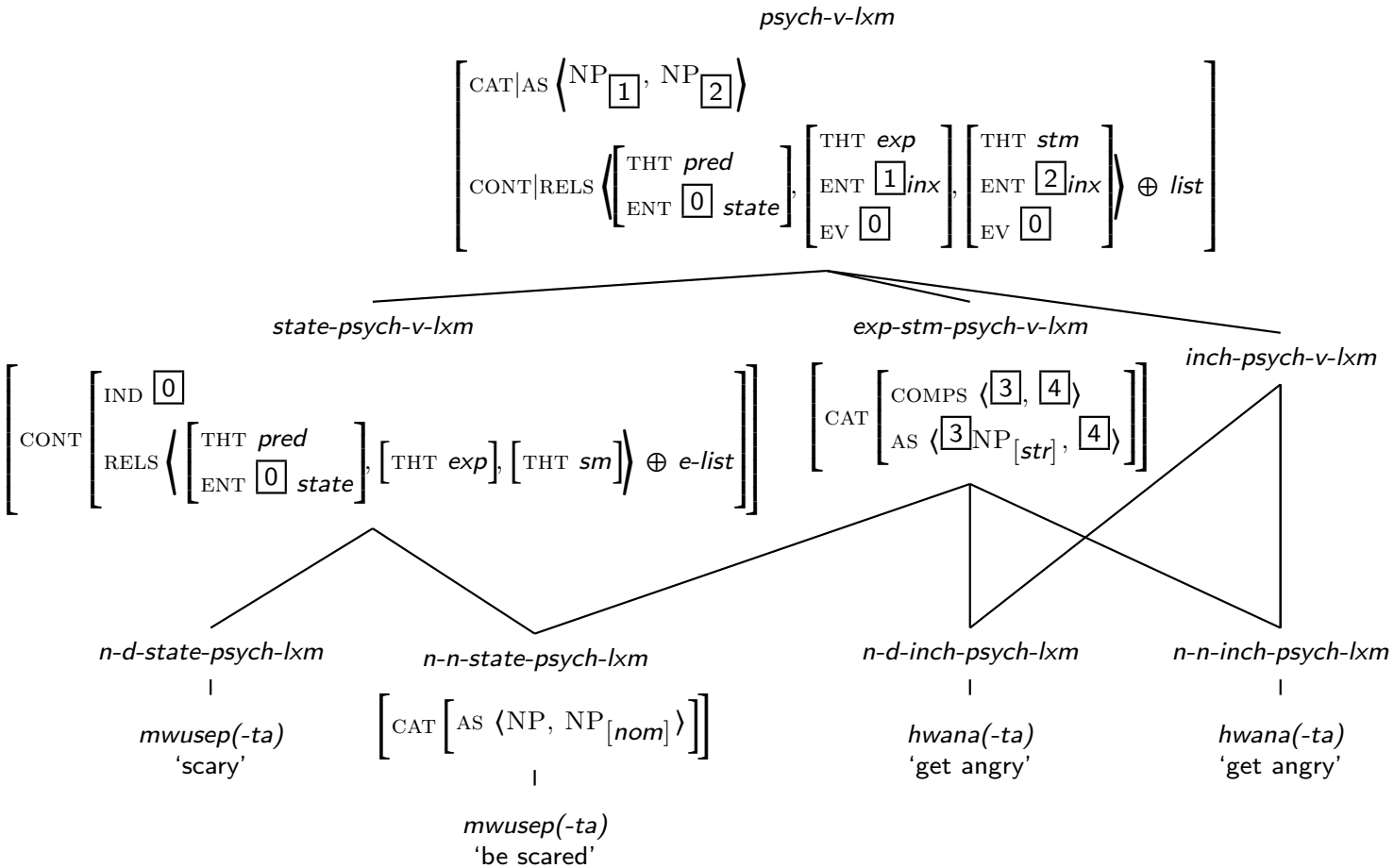
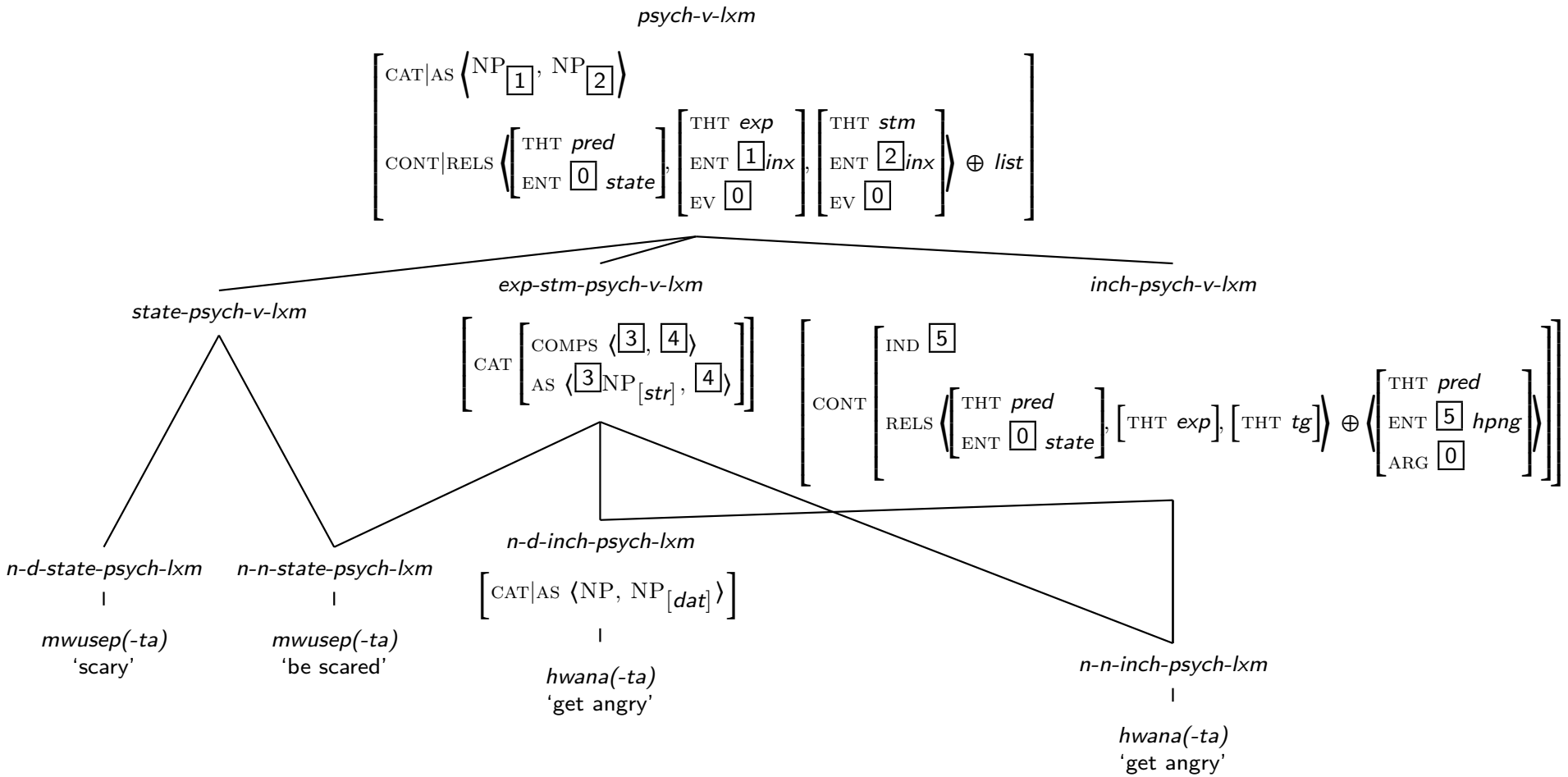
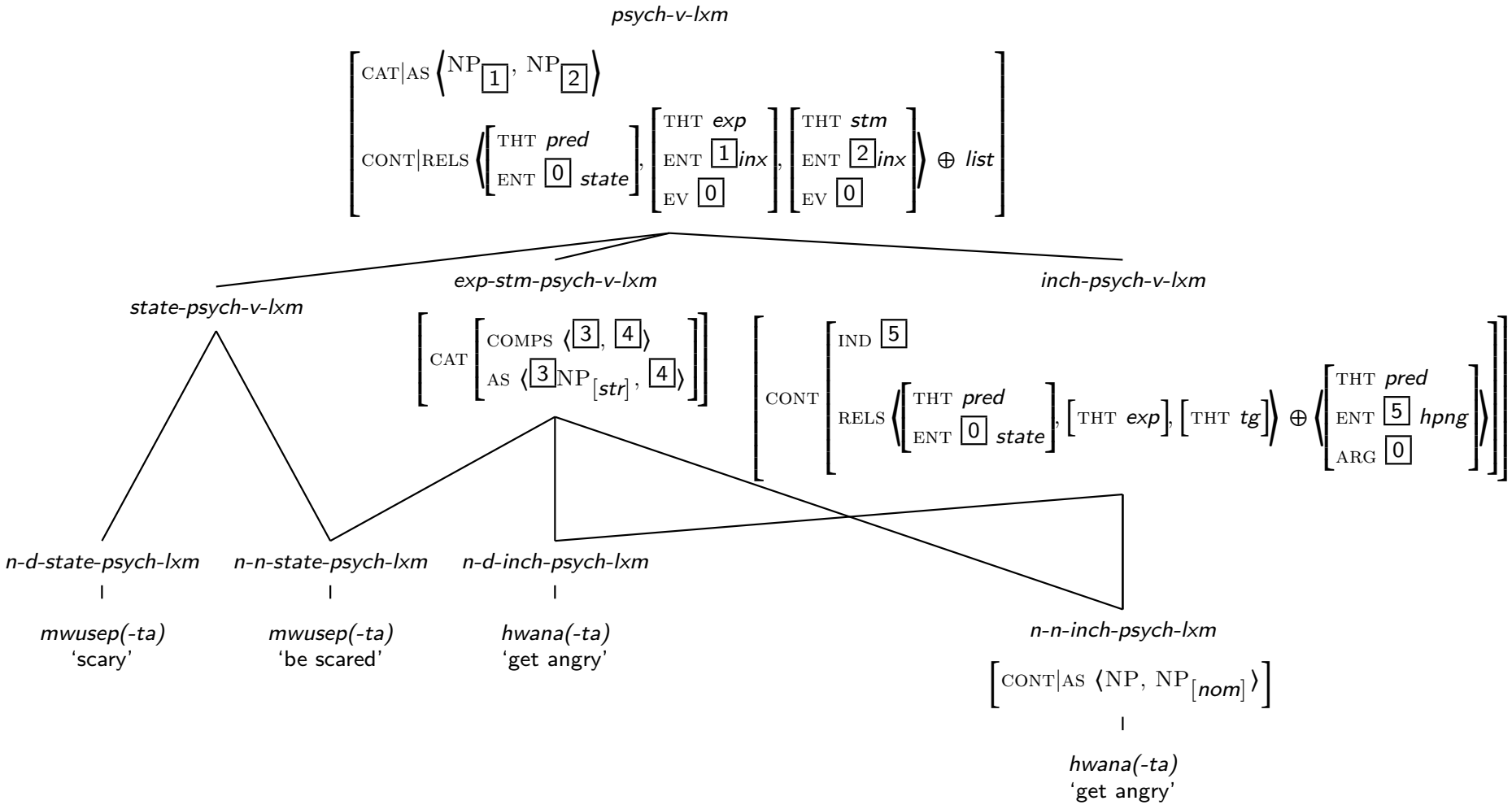
'get angry'


psych-v-lxm
CAT|AS ⟨NP[1], NP[2]⟩
CONT|RELS ⟨[THT pred, ENT [0] state], [THT exp, ENT [1] inx, EV [0]], [THT stm, ENT [2] inx, EV [0]]⟩ ⊕ list
state-psych-v-lxm
exp-stm-psych-v-lxm
inch-psych-v-lxm
CONT [IND [0], RELS ⟨[THT pred, ENT [0] state], [THT exp], [THT sm]⟩ ⊕ e-list]
CAT [COMPS ⟨[3], [4]⟩, AS ⟨[3]NP[str], [4]⟩]
n-d-state-psych-lxm
n-n-state-psych-lxm
n-d-inch-psych-lxm
n-n-inch-psych-lxm
CAT [AS ⟨NP, NP[nom]⟩]
mwusep(-ta)
'scary'
mwusep(-ta)
'be scared'
hwana(-ta)
'get angry'
hwana(-ta)
'get angry'


psych-v-lxm
CAT|AS ⟨NP[1], NP[2]⟩
CONT|RELS ⟨[THT pred, ENT 0 state], [THT exp, ENT 1 inx, EV 0], [THT stm, ENT 2 inx, EV 0]⟩ ⊕ list
state-psych-v-lxm
exp-stm-psych-v-lxm
inch-psych-v-lxm
CAT [COMPS ⟨3, 4⟩, AS ⟨3 NP[str], 4⟩]
CONT [IND 5, RELS ⟨[THT pred, ENT 0 state], [THT exp], [THT tg]⟩ ⊕ ⟨[THT pred, ENT 5 hpng, ARG 0]⟩]
n-d-state-psych-lxm
mwusep(-ta)
'scary'
n-n-state-psych-lxm
mwusep(-ta)
'be scared'
n-d-inch-psych-lxm
[CAT|AS ⟨NP, NP[dat]⟩]
hwana(-ta)
'get angry'
n-n-inch-psych-lxm
hwana(-ta)
'get angry'


psych-v-lxm
CAT|AS ⟨NP[1], NP[2]⟩
CONT|RELS ⟨[THT pred, ENT 0 state], [THT exp, ENT 1 inx, EV 0], [THT stm, ENT 2 inx, EV 0]⟩ ⊕ list
state-psych-v-lxm
exp-stm-psych-v-lxm
inch-psych-v-lxm
[CAT [COMPS ⟨3, 4⟩, AS ⟨3 NP[str], 4⟩]]
[CONT [IND 5, RELS ⟨[THT pred, ENT 0 state], [THT exp], [THT tg]⟩ ⊕ ⟨[THT pred, ENT 5 hpng, ARG 0]⟩]]
n-d-state-psych-lxm
n-n-state-psych-lxm
n-d-inch-psych-lxm
n-n-inch-psych-lxm
[CONT|AS ⟨NP, NP[nom]⟩]
mwusep(-ta)
'scary'
mwusep(-ta)
'be scared'
hwana(-ta)
'get angry'
hwana(-ta)
'get angry'

Conclusions

- A **fourfold** categorization of psych verbs for both Spanish and Korean fits better the data (contra the classic threefold view proposed e.g. by Belleti and Rizzi 1988).
- Not only the experiencer alternates in case marking between DAT and ACC for Spanish and NOM and DAT for Korean, but **also the stimulus** does (i.e. DAT and ACC for Spanish and NOM and DAT for Korean).
- Unmarked word order is the result of the interaction of **event(ualities)**, **theta-roles** and **case marking**, where:
  - For Spanish:
    - The class of EO DAT structure of *asustar* patters as the EO DAT structure of *gustar* verbs. EXP-DAT > STM-NOM
    - EO ACC structure of *asustar* behaves in a canonical manner. i.e. STM- NOM > EXP-ACC
    - ES structures always front the experiencer alternating in case marking of the STM
    - ES STM-ACC constructions possess a target violation constrain: no two TG in same structure.

Conclusions

- For Korean:
  - The class of *mwusepta* (i.e. AEP in Nam 2015) alternates the EXP between NOM and DAT. SM-NOM > EXP-DAT
  - The class of *hwanata* (i.e. PEP in Nam 2015) alternates the STM between NOM and DAT. EXP-NOM > TG-DAT
  - Double nominative structures always front the experiencer: WO freezing effects.
  - Korean psych verbs do not admit the co-occurrence of a SM and a TG in the same structure.

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