

Gluing (SVC-type) Complex Predicates

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(1) Tariana (Aikhenvald 2003)

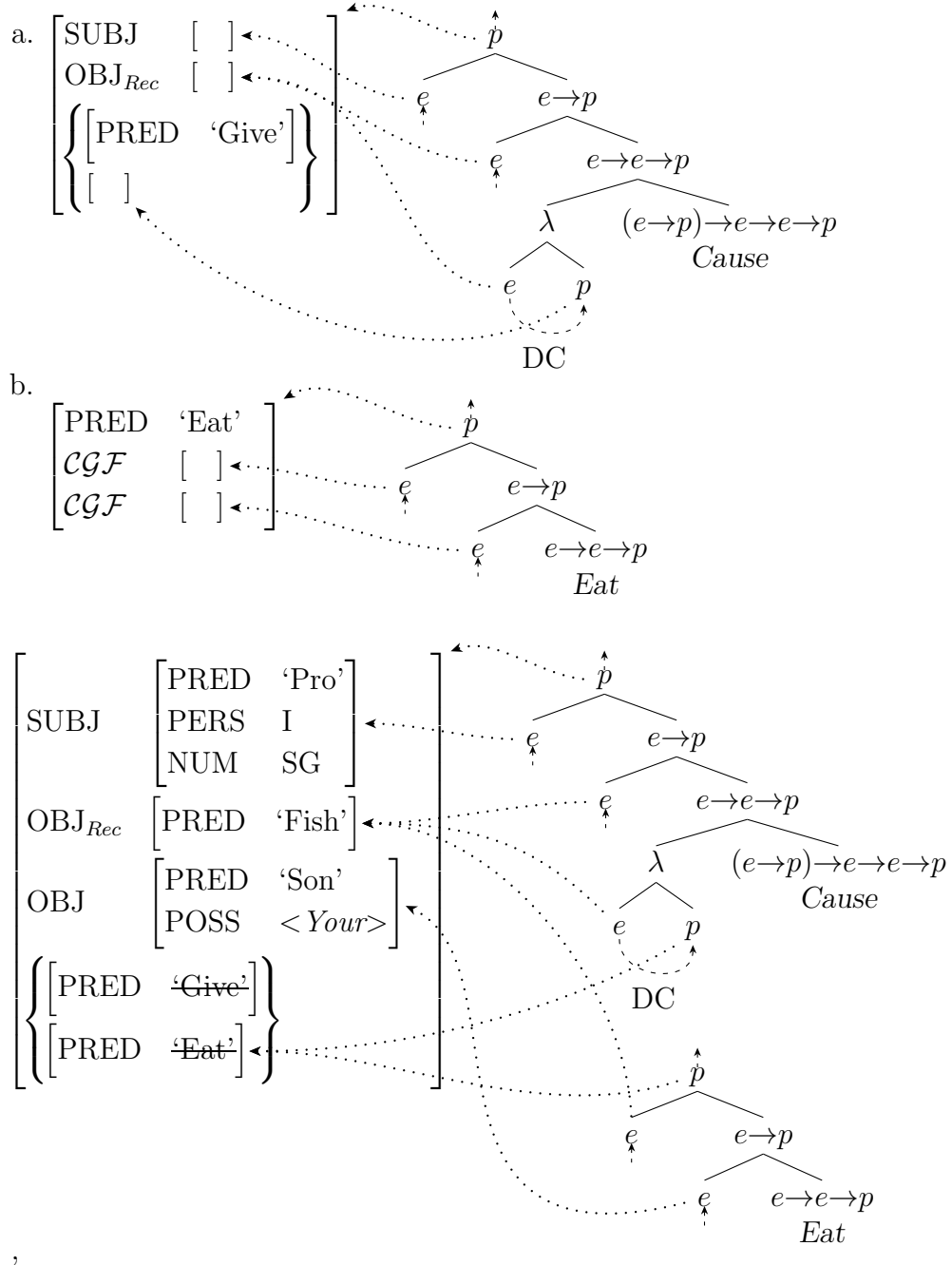
- a. ma [wa-wa wa-dana] wa-yarupe=nuku
 let's 1PL-read/play 1PL-write 1PL-thing=TOPIC
 'Let's read and write up our language!' (symmetric SVC, coordinate structure semantics)
- b. ka:ru-ka nuha [nu-a=mahka nu-hyã=niki]
 fear-DECL I 1SG-give=RECPAST:NONVIS 1SG-eat=COMPLT
 piri=nuku di-a=pidana
 2SG.son=TOPIC 3SGNF-say-REMPAST:INFR
 'Being afraid, I let (the fish) eat your son, he said.' (asymmetric SVC, causative semantics)

$$(2) \quad V \quad \rightarrow \quad V^* \\ \downarrow \in \uparrow$$

$$(3) \quad \left[\begin{array}{l} \text{SUBJ} \quad \left[\begin{array}{l} \text{PRED} \quad \text{'Pro'} \\ \text{PERS} \quad \text{I} \\ \text{NUM} \quad \text{SG} \end{array} \right] \\ \text{OBJ}_{Rec} \quad \left[\begin{array}{l} \text{PRED} \quad \text{'Fish'} \end{array} \right] \\ \text{OBJ} \quad \left[\begin{array}{l} \text{PRED} \quad \text{'Son'} \\ \text{POSS} \quad \left[\begin{array}{l} \text{PRED} \quad \text{'Pro'} \\ \text{PERS} \quad \text{II} \\ \text{NUM} \quad \text{SG} \end{array} \right] \end{array} \right] \\ \left\{ \left[\begin{array}{l} \text{PRED} \quad \text{'Give'} \end{array} \right] \right\} \\ \left\{ \left[\begin{array}{l} \text{PRED} \quad \text{'Eat'} \end{array} \right] \right\} \end{array} \right]$$

Representation partly inspired by Nordlinger and Sadler (2008); Dalrymple (2001) for sets in f-structures.

(4) Semantic Lexicon Entries: Andrews (2007a, 2007b, 2008, 2010)

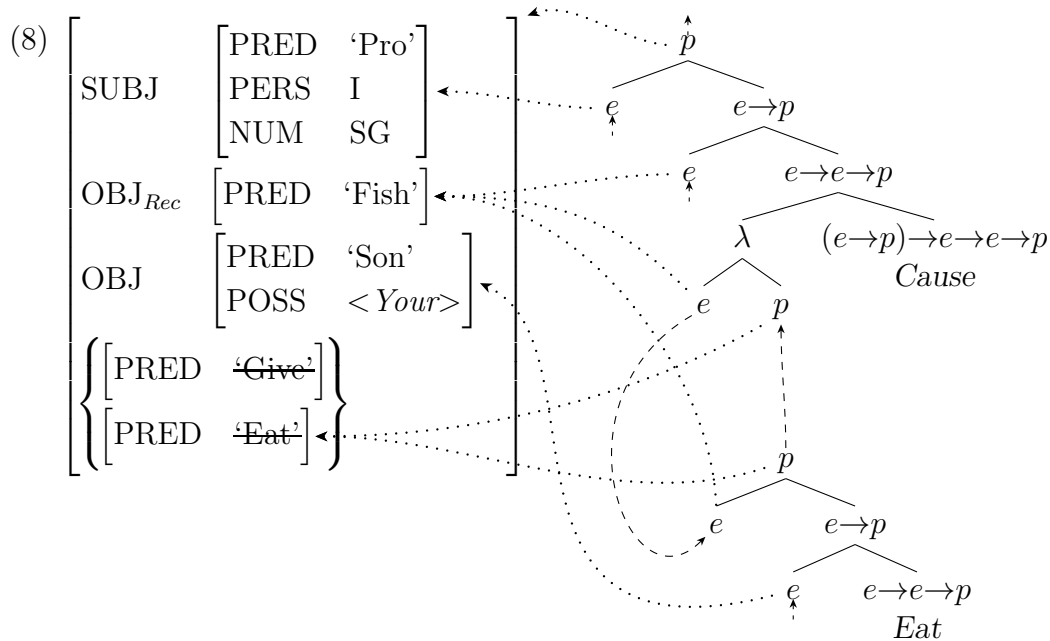


(6) a. Features can only be crossed off once.

b. All 'interpretable' features must be crossed off.

c. So a denial cannot be construed as a confession by ignoring a negative or interpreting it twice: *'I did not eat the last bikkie'*.

- d. But haploglogies can be implemented when needed, with an SLE introducing two instances of a meaning-piece when crossing off one feature.
- (7) a. Outputs can only be plugged into to inputs with the same semantic type and f-structure correspondent
- b. The constraint imposed by the DC-link must be obeyed (output from e plugs into highest argument of input to p).



- (9) a. The most prominent \mathcal{CGF} (core grammatical function) argument in the semantic assembly must be the value of SUBJ (in the shared output of the linking domain).
 - b. The least prominent \mathcal{CGF} argument in the semantic assembly must be the value of OBJ
 - c. Any remaining \mathcal{CGF} argument must be the value OBJ_θ , for θ as determined by the meaning of the lexical item
- (10) Linear order constraints on the SVC components to be implemented by additional constraints on the SLEs stated in terms of ‘f-precedence’ (order of c-structure correspondents of the f-(sub)structures).

$$(11) \left[\begin{array}{ll} \text{MOOD} & \text{HORT} \\ \text{SUBJ} & \left[\begin{array}{ll} \text{PRED} & \text{'Pro'} \\ \text{PERS} & \text{I} \\ \text{NUM} & \text{PL} \end{array} \right] \\ \text{OBJ} & \left[\begin{array}{ll} \text{PRED} & \text{'Language'} \\ \text{POSS} & \left[\begin{array}{ll} \text{PRED} & \text{'Pro'} \\ \text{PERS} & \text{I} \\ \text{NUM} & \text{PL} \end{array} \right] \end{array} \right] \\ \left\{ \left[\begin{array}{ll} \text{PRED} & \text{'Read'} \end{array} \right] \right\} \\ \left\{ \left[\begin{array}{ll} \text{PRED} & \text{'Write'} \end{array} \right] \right\} \end{array} \right]$$

- (12) a. We need some sort of ‘coordination’ meaning (or really, I think, a family of such meanings), which is not associated with any overt feature for the ‘crossing off’ mechanism to apply to
- b. Each argument must be understood with each of the two verbs, creating a problem of ‘resource deficit’ in glue, since an output can be plugged into only one input.
- c. Asudeh and Crouch (2002) show how to do this without using schemas, but it’s complicated.
- (13) Given a collection of predicates taking the same array of arguments, and producing the same output type, and a (perhaps only associative) semantic operation (boolean conjunction, sequential conjunction, i-summation, etc.) on that type, combine the predicates into a single predicate on that argument array, combining the outputs of the predicate with the operation.

$$(14) \quad \begin{aligned} P &: (g \mathcal{GF}_1)_{\tau_1} \multimap \dots \multimap (g \mathcal{GF}_n)_{\tau_n} \multimap g_\sigma \\ \text{Read} &: (g \text{OBJ})_e \multimap (g \text{SUBJ})_e \multimap g_p \end{aligned}$$

$$(15) \quad f: \left[\begin{array}{l} f_1: \left[\begin{array}{l} \vdots \\ \vdots \end{array} \right] \\ \vdots \\ f_m: \left[\begin{array}{l} \vdots \\ \vdots \end{array} \right] \end{array} \right] \quad \begin{aligned} &((f \mathcal{GF}_1)_{\tau_1} \multimap \dots \multimap (f \mathcal{GF}_n)_{\tau_n} \multimap f_{1\sigma}) \multimap \\ &\vdots \\ &((f \mathcal{GF}_1)_{\tau_1} \multimap \dots \multimap (f \mathcal{GF}_n)_{\tau_n} \multimap f_{m\sigma}) \multimap \\ &(f \mathcal{GF}_1)_{\tau_1} \multimap \dots \multimap (f \mathcal{GF}_n)_{\tau_n} \multimap f_\sigma \end{aligned}$$

$$\lambda P_1 \dots P_m x_1 \dots x_n. \bigwedge_{i=1}^m P_i(x_1) \dots (x_n)$$

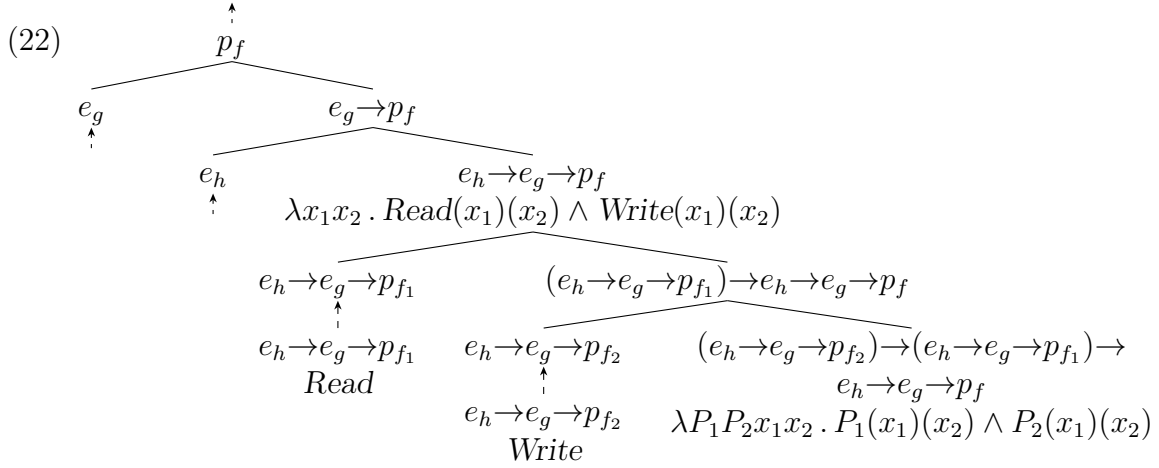
- (16) Plausible typological parameters for the universal ‘meaning-constructor factory’ (a meaning-constructor being combination of a meaning-piece with information about how it connects to syntax, so that an SLE is one kind of meaning-constructor).
- a. The meaning and semantic type of the semantic operation (e.g. boolean conjunction versus sequential conjunction; co-description of a single event versus interleaved multiple events).
 - b. The c-structure category of the c-structure correspondents of the coordinate items (accessible through the inverse ϕ relation; this might be difficult to distinguish from (a))
 - c. The number of members (binary versus n -ary, this too might also be handled in c-structure)
 - d. The saturatedness of the predicates, e.g. combination of S (complete), VP (shared subject) or V (all arguments shared). Again probably difficult to distinguish from c-structure parameters.
- (17) To control the introduction of instances of the scheme, instances of the set-membership relation could be crossed off.

$$(18) \left[\begin{array}{cc} \text{SUBJ} & g: \left[\begin{array}{c} \\ \end{array} \right] \\ \text{OBJ} & h: \left[\begin{array}{c} \\ \end{array} \right] \\ f: \left\{ \begin{array}{l} f_1: [\text{PRED} \quad \text{'Read'}] \\ f_2: [\text{PRED} \quad \text{'Write'}] \end{array} \right\} \end{array} \right]$$

$$(19) \quad \begin{array}{l} \text{Read} : (h \text{ OBJ})_e \multimap (g \text{ SUBJ})_e \multimap f_{1p} \\ \text{Write} : (h \text{ OBJ})_e \multimap (g \text{ SUBJ})_e \multimap f_{2p} \end{array}$$

$$(20) \quad \lambda P_1 P_2 x_1 x_2 . P_1(x_1)(x_2) \wedge P_2(x_1)(x_2) : \\ ((f \text{ OBJ})_e \multimap (f \text{ SUBJ})_e \multimap f_{1p}) \multimap \\ ((f \text{ OBJ})_e \multimap (f \text{ SUBJ})_e \multimap f_{2p}) \multimap \\ (f \text{ OBJ})_e \multimap (f \text{ SUBJ})_e \multimap f_{2p} \multimap f_p$$

$$(21) \quad \lambda x_1 x_2 . \text{Read}(x_1)(x_2) \wedge \text{Write}(x_1)(x_2) : h_e \multimap g_e \multimap f_p$$



- (23) [dima di-ñha di-emhani-pidana] kuphe-nuku
 he.sleep he-eat he-walk-REM.P.REP fish-TOP.NON.A.S
 He went fishing for several days; lit; ‘he ate, walked and slept with respect to fish’ (c.f. ‘Eat, sleep and breathe unit testing’)

(24)

$$f: \left[\begin{array}{l} \text{SUBJ } g: \left[\begin{array}{l} \end{array} \right] \\ \text{OBJ } h: \left[\text{PRED 'Fish'} \right] \\ \left\{ \begin{array}{l} f_1: \left[\text{PRED 'Eat'} \right] \\ f_2: \left[\text{PRED 'Walk'} \right] \\ f_3: \left[\text{PRED 'Sleep'} \right] \end{array} \right\} \end{array} \right] \quad \lambda x. \text{Go_on_a_fishing_trip} : g_e \multimap f_p$$

- (25) [mhaĩsiki tara-tha] pi-kare phia
 be.hungry(S_{io}) be.hard(S_o) 2sg-heart you
 Your heart is hunger-hard; you don’t feel much hunger

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