

### Transitivity matching in Saliba (Oceanic, Papua New Guinea)

**Proposal:** Transitivity matching in Saliba is the result of a kind of conjunction, where a shared object needs to be realized as a dependent of the entire complex. **Data:** In Saliba, complex verbs exhibit **transitivity matching** (Margetts 1999, 2005). In (1), an intransitive  $V_a$  combines with an intransitive  $V_b$ ; in (2), a transitive  $V_a$  combines with a transitive  $V_b$ . In (3), a transitive  $V_a$  combines with an intransitive  $V_b$ . Because  $V_b$  is intransitive, it must be transitivized by the causative (3a); leaving  $V_b$  intransitive is ill-formed (3b). In (4a), an intransitive  $V_a$  combines with an intransitive  $V_b$ , but when  $V_b$  is combined with a transitive  $V_a$ ,  $V_b$  must be transitivized by the applicative (4b). Complex verbs have one set of agreement affixes.

- (1) *Ye-[kamposi]-[dobi]* intr + intr (2) *Ye-[koi]-[kesi]-di* tr + tr  
 3SG.S-jump-go.down 'He jumped down' 3SG.S-hit-break-3PL.O 'He broke them by hitting'
- (3) a. *Ye-[koi]-[\*(**he**)-beku]- $\emptyset$*  tr + tr (4) a. *Ye-[kamposi]-[kasaya]* intr + intr  
 3SG.S-hit-CAUS-fall-3SG.O 'He made it fall down by hitting' 3SG.S-jump-in.vain 'He tried in vain to jump'
- b. *Ye-[tu]-[dobi]-\*(**ei**)- $\emptyset$*  tr + tr b. *Ya-[deuli]-[kasaya]-\*(**i**)-di* tr + tr  
 3SG.S-throw-go.down-APPL-3SG.O 'He threw it down' 1SG.S-wash-in.vain-APPL-3PL.O 'I washed them in vain'

Up to four verbs can combine, with  $V_a$  expressing the main event / means,  $V_b$  the result / main event,  $V_c$  directionality, and  $V_d$  manner / aspect. Verbs in non-initial slots tend to acquire a more abstract meaning than in isolation, e.g. *uyo* 'return' ~ 'again', or *lao* 'go' ~ 'to(wards)'. Matching cannot be due to a simple restriction on the arity of verbs, as intransitive verbs in certain slots take either the causative or applicative, but not both.

Relative positional slots	$V_a$	$V_b$	$V_c$	$V_d$
Typical meaning	main event / means	result / main event	directionality	manner / aspect
Valence increase for intransitives	CAUS	CAUS	APPL	mostly APPL

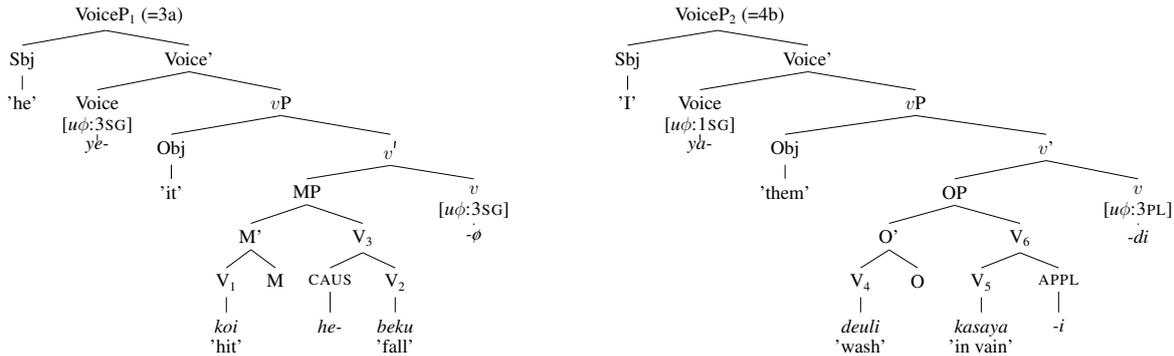
Various verbs cannot be transitive in isolation, (5,6), and only transitivize via APPL in complex verbs (4b,7). That they must do so in order to realize an inherited argument as the object of the entire complex verb is shown by (i) the fact that APPL can only occur once and on the final verb (Margetts 1999), and (ii) related Toqabaqita (Lichtenberk 2006), where objects of complexes with a transitive  $V_a$  and an intransitive modifying  $V_b$  are realized oblique, rather than via APPL (8) - again only in complex verbs (9). Such cases can be seen as repairs or **constructional deponents**, instantiating a form-function mismatch within complex verbs only.

- (5) *Se-[uyo]-ma* (6) *\*Se-[uyo-i]- $\emptyset$*  (7) *Ta-[he-yoli]-[uyo-i]- $\emptyset$*   
 3PL-return-hither 3PL-return-APPL-3SG.O 1PL.O-CAUS-sink-return-APPL-3SG.O  
 'They came back' ('They came back to it') 'We again make it sink'
- (8) *Nau ku [fanga]-[baqita] qana alo* (9) *\*fanga / baqita qana alo*  
 1SG 1SG.NFUT eat-be.big OBL taro eat / be.big OBL taro  
 'I ate a lot of taro' ('eat (of) taro' / 'be a lot of taro')

**Analysis:** Since complex verbs are compact - nothing can surface between verbs - they involve a kind of specialized (covert) conjunction (cf. de Vos 2005) of  $V^0$ s, which can themselves be complex given the presence of individual voice morphology (cf. 3a,3b,4b,7). • Voice and *v* introduce the Agent and Patient (Kratzer 1996, Borer 2005), and bivalent verbs have lower-argument variables which must end up bound by, or coreferring with full arguments (12; Williams 2015). This is motivated by (i) the impossibility of inter-verbal material; (ii) the fact that objects are shared; (iii) the need to ensure that spuriously applicative manner  $V_b$ s realize objects inherited from  $V_a$  (4b,7). • The verb *lao* 'go' takes an oblique object in isolation, which is retained when it occurs as  $V_b$  with the transitive  $V_a$  *kaikewa* 'look', which takes a direct object in isolation (10). But in (11), when *lao* is  $V_a$ , the object is direct, as required by the transitive  $V_b$  *watani* 'follow' in isolation. It is  $V_b$  that projects in cases like (4b,7), since the general inability

to transitivize, but exceptional need to do so in the presence of a transitive  $V_a$  is a property of  $V_b$ . The final verb determines the object's realization (10, 11), and hence projects syntactically - this is reflected in its being structurally higher (see de Vos 2005 for asymmetry within &P). • So 'matching' occurs because conjoined  $V^0$ s must be like, and some intransitive  $V_b$ s transitivize because they must realize objects inherited from transitive  $V_a$ s, in a way consistent with  $V_b$ 's subcategorization. But if  $V_b$  cannot natively take objects, APPL, Saliba's generic transitivizer, is inserted to Case-license it (cf. the alternative, oblique strategy in 8).

- (10) *Ye-[kai-kaikewa]-[lao] kana kaha ne unai* (11) *Bena ku-[lao]-[watani]-di*  
 3SG.S-RED-look-go his friend DET OBL OBLIG 2SG.S-go-follow-3PL.O  
 'He is looking over to his friend' 'You must follow them'



- (12)  $[[V_1]] = \lambda e. \text{hit}(e,y)$ ;  $[[V_3]] = \lambda e. \text{CAUSE-fall}(e,x)$   
 (13)  $[[M]] = \lambda P\lambda Q\lambda e_c \exists e_1 \exists e_2. P(e_1) \ \& \ Q(e_2) \ \& \ \text{MEANS}(e_c,e_1,e_2)$   
 (14)  $[[MP]] = \lambda e_c \exists e_1 \exists e_2. \text{hit}(e_2,y) \ \& \ \text{CAUSE-fall}(e_1,x) \ \& \ \text{MEANS}(e_c,e_1,e_2)$   
 (15)  $[[VoiceP_1]] = \lambda e_c \exists e_1 \exists e_2. \text{hit}(e_2,y_i) \ \& \ \text{CAUSE-fall}(e_1,x_i) \ \& \ \text{MEANS}(e_c,e_1,e_2) \ \& \ \text{PAT}(e_c,'it'_i) \ \& \ \text{AGT}(e_c,'he')$   
 (16)  $[[V_4]] = \lambda e. \text{wash}(e,x)$ ;  $[[V_5]] = \lambda e. \text{in.vain}(e)$ ;  $[[O]] = \lambda P\lambda Q\lambda e_c \exists e_1 \exists e_2. P(e_1) \ \& \ Q(e_2) \ \& \ \text{MANNER}(e_c,e_1,e_2)$   
 (17)  $[[VoiceP_2]] = \lambda e_c \exists e_1 \exists e_2. \text{wash}(e_2,x_i) \ \& \ \text{IN.VAIN}(e_1) \ \& \ \text{MANNER}(e_c,e_1,e_2) \ \& \ \text{PAT}(e_c,'them'_i) \ \& \ \text{AGT}(e_c,'I')$   
 (18)  $[[10]] = \lambda e_c \exists e_1 \exists e_2. \text{look}(e_2,x_i) \ \& \ \text{DIRECTION}(e_c,e_1,e_2) \ \& \ \text{TO}(e_1,y_i) \ \& \ \text{PAT}(e_c,'his friend'_i) \ \& \ \text{AGT}(e_c,'he')$

Drawing on Williams (2012), I propose that  $V_a$  and  $V_b$  in result, manner and directional complex verbs are conjoined by the heads M, O and R, which predicate a MEANS, MANNER and DIRECTION relation between  $e_1$  and  $e_2$ , respectively. I treat these as distinct flavors of the same conjunctive head, whose specific relation of  $e_1$  to  $e_2$  is determined as a function of  $V_a$  and  $V_b$ . Agents and Patients are introduced as roles of the resulting complex event  $e_c$ , and identified with those of  $e_1$  and  $e_2$  (cf. Parsons 1990, Kaufmann 1995). In Tree 1 (=3a), M (13) expresses a MEANS relation between 'CAUSE-fall' and 'hit' (14), and the object is direct since  $V_b =$  'CAUSE-fall' projects and licenses objects in isolation. In Tree 2 (=4b), O expresses a MANNER relation between  $e_1$  and  $e_2$  (16), and since 'in vain' natively disallows objects but must realize that of 'wash', APPL must be inserted (17). And in cases like (10; see also 3b), R expresses a DIRECTION relation between 'go/TO' and 'look' (cf. also 3b); since 'go/TO' natively subcategorizes for an oblique object, the object of the entire complex is realized oblique. In all cases, the Agent and Patient are merged as roles to the entire complex event  $e_c$ , and identified with those of  $e_1$  and  $e_2$ . **Outlook:** I also discuss (i) blocking of non-final arguments, as found in resultatives (cf. *She sang a song* vs *She sang (\*a song) herself hoarse*), (ii) points of variation across Oceanic (the lack of transitivity matching, object realization strategies), and (iii) other cases of transitivity matching (e.g. in Panoan or Dyirbal, where matching does seem to result from surface arity requirements; cf. Dixon 2011, Valenzuela 2011). **Sel. refs:** Kaufmann, I. (1995): *What is an (im)possible verb?*. Lichtenberk, F. (2006): *SVCs in Toqabaqita*. Margetts, A. (1999): *Valence and transitivity in Saliba*. Parsons, T. (1990): *Events in the semantics of English*. Williams, A. (2012): *Objects in resultatives*. - (2015) *Arguments in syntax and semantics*.