



non-reciprocal sentences with *-aw* can also be specified by adverbial elements as in (4).

- (3) Yasu-wa Hiroki-no {a. kyoosoo- b. kootai-no} **aite** da.  
 Yasu-TOP Hiroki-GEN {a. competition, b. alternate-GEN} match.hand COP.NPAST  
 ‘Yasu is Hiroki’s {a. competitor/rival, b. alternate}.’
- (4) Kodomo-tachi-ga {a. **kisotte**, b. **junbanni**} Yasu-o tasuke-at-ta.  
 child-PL-NOM {a. **competing** b. **alternately**} Yasu-ACC help-RECIP-PAST  
 ‘The children helped Yasu {a. competing with each other, b. alternately}.’

We propose that the non-reciprocal interpretation has a context dependent variable of a state *VS* and that the event property denoted by (2) is (5)a (see Schwarzschild 1996 for Cover), which is further folded by the *n\**-operator as in (5)b. The *VS(x)(y)(e)* requires there be a state *s* present throughout the event *e*, where *s* is a substantive plurality (Kratzer 2003, Ch.4) of non-overlapping individuals *x* and *y*. The paring of *x* and *y* must be meaningful by itself and it is not enough to have a mere sum of two individuals. The precise way of paring is determined by the utterance context such as *x is a competitor of y* or *x is an alternate of y*.

- (5) a.  $\lambda E. \forall x(x \in \text{kids} \& \text{Cov}_1(x) \rightarrow$   
 $\exists y \exists e(y \in \text{kids} \& \text{Cov}_2(y) \& e \in E \& \text{Cov}_3(e) \& \text{help}(\text{Yasu})(x)(e) \& \text{VS}(x)(y)(e))) \&$   
 $\forall y(y \in \text{kids} \& \text{Cov}_2(y) \rightarrow$   
 $\exists x \exists e(x \in \text{kids} \& \text{Cov}_1(x) \& e \in E \& \text{Cov}_3(e) \& \text{help}(\text{Yasu})(x)(e) \& \text{VS}(x)(y)(e))) \&$   
 $\forall e(e \in E \& \text{Cov}_3(e) \rightarrow$   
 $\exists x \exists y(x \in \text{kids} \& \text{Cov}_1(x) \& y \in \text{kids} \& \text{Cov}_2(y) \& \text{help}(\text{Yasu})(x)(e) \& \text{VS}(x)(y)(e)))$
- b.  $\lambda E. \text{***}[\lambda x. \lambda y. \lambda e. \text{help}(\text{Yasu})(x)(e) \& \text{VS}(x)(y)(e)](\text{kids})(\text{kids})(E)$   
 where  $\text{VS}(x)(y)(e)=1$  iff  $\exists s(s \leq e \& s$  is a state of *x* and *y* being a pair  $\& \neg x \circ y$ )

The reciprocal interpretation can also be modeled using the *VS* and we propose two type shift variants of the lexical meaning of *-aw* in (6). When the predicate that *-aw* suffixes is a transitive verb, the most explicit way of paring the two individuals is interpreting them as the coarguments of the predicate. In consequence the *VS* functions as the non-overlapping condition of the reciprocal interpretation. Under this view, *-aw* in the non-reciprocal sentences functions as a semantic transitivizer in the sense that it creates a function from a relation of two individuals to an event property based on the intransitive verb it takes. At the same time, it reduces the syntactic valence of the main predicate by one by feeding it the subject argument twice.

- (6)a.  $\llbracket \text{aw} \rrbracket = \lambda R_{\text{event}}. \lambda X. \lambda E. \text{***}[\lambda x. \lambda y. \lambda e. R(x)(y)(e) \& \text{VS}(x)(y)(e)](X)(X)(E)$  [Reciprocal]  
 b.  $\llbracket \text{aw} \rrbracket = \lambda P_{\text{event}}. \lambda X. \lambda E. \text{***}[\lambda x. \lambda y. \lambda e. P(x)(e) \& \text{VS}(x)(y)(e)](X)(X)(E)$  [Non-Reciprocal]  
 where  $\text{VS}(x)(y)(e)=1$  iff  $\exists s(s \leq e \& s$  is a state of *x* and *y* being a pair  $\& \neg x \circ y$ )