

## Note on binding of an association particle to semantic particles

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### Primitive semantic particles

Let us consider two primitive semantic particles -  $V_i$  and  $V_j$  connected through association particle (link)

$A_{i,j}$ .

$V_i \text{---} A_{i,j} \text{---} V_j$

The particles  $V_i$  and  $V_j$  are represented by their semantic signatures  $\mathbf{V}_i$  and  $\mathbf{V}_j$ . The association link  $A_{i,j}$  is represented with its association matrix  $\mathbf{A}_{i,j}$  and semantic significance vector  $\mathbf{W}_{i,j}$ .

The association matrix has the following structure: