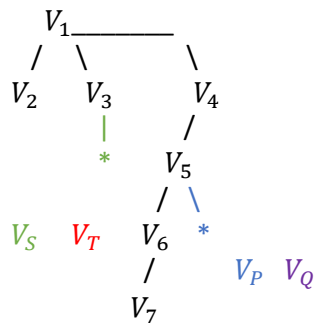


D. Gueorguiev 10/11/2021

Semantic structure S_1 :

$$ssig(S_1) = [\mathbf{V}_1 \mathbf{A}_{1,2} \mathbf{V}_2 \mathbf{A}_{1,3} \mathbf{V}_3 \mathbf{A}_{1,4} \mathbf{V}_4 \mathbf{A}_{4,5} \mathbf{V}_5 \mathbf{A}_{5,6} \mathbf{V}_6 \mathbf{A}_{6,7} \mathbf{V}_7]$$

$text(V_o) = \text{"Poison"}$



Affinity field of the semantic structure S – a discrete field which defines affinity / anti-affinity force $F(V_i)$ between the particle V_i of the semantic structure S and a test particle $V_{test}(P)$

P is the properties tree $ptree(V_{test})$ of the test particle V_{test} . We will assume general form of P .

The affinity force $F_i(P)$ is a function that maps the property tree P to a signed real number. The function $F_i(P)$ identifies specific features of the property tree such as the presence of specific subtree $\mathfrak{T} \subset P$ or a specific set of properties $S \subset P$ toward which V_i has strong affinity (attraction). Note that F_i has implicit dependence on S as well i.e. in a context different than S F_i could have different values for the same P .