# ~~Thought~~ Synthesis of Semantic Structures

## Particle model for thought synthesis

### Recombination Particles and Conservation Laws

### Affinities and Affinity Sets

Let us consider a particle denoted by . Let us consider the case when the particle combines from the right with another compound particle as shown below

The affinity for each of the two -particles gets calculated and information about the affinity value gets recorded inside the -particle which is intermediary for the two -particles. In this case the intermediary is which stores information on chosen combination . Any new attempt to combine the particle with another compound particle will involve -particle clone of . This clone already has learned ’s affinity for and will encourage recombining with such -particles which have close enough semantic distances to .

Now, let us consider the compound particle . This particle has been initially combined with another compound particle where is not close to semantically.

Example: Let us consider the compound particle *“Dimitar’s book”*, represented by

Here: