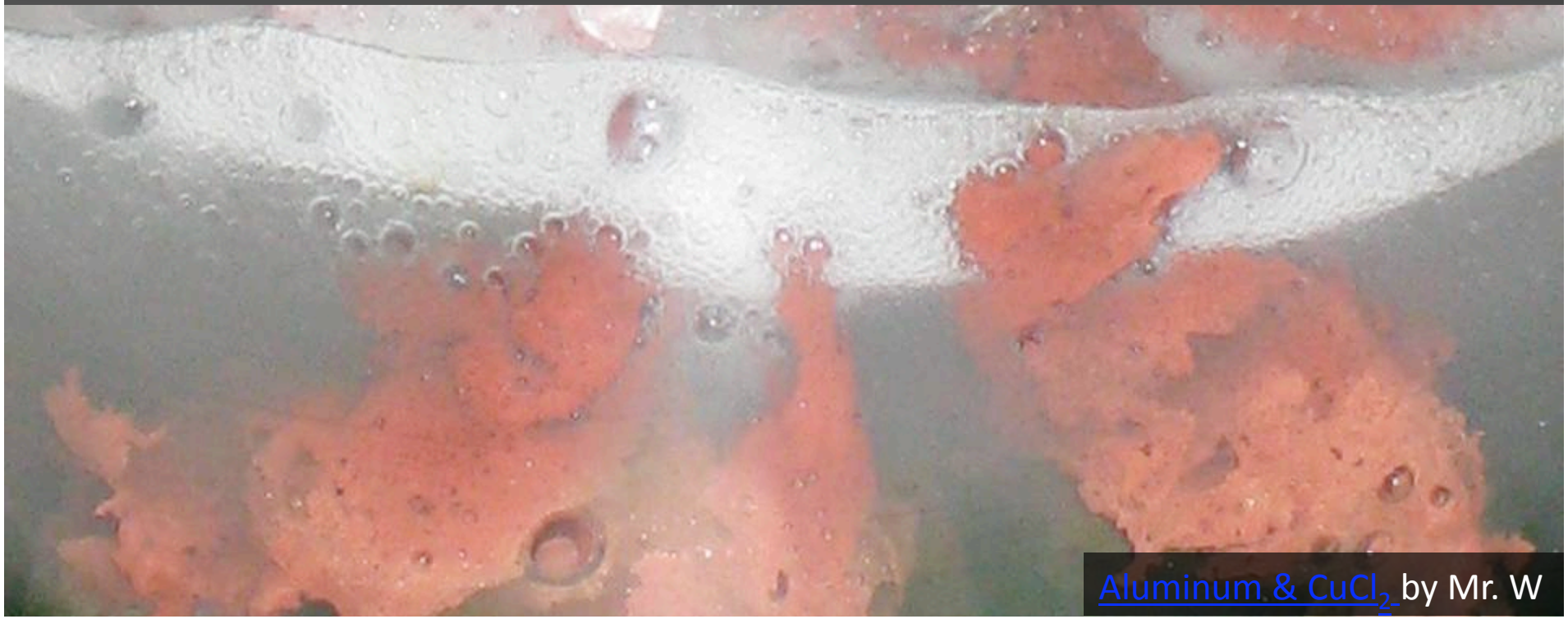
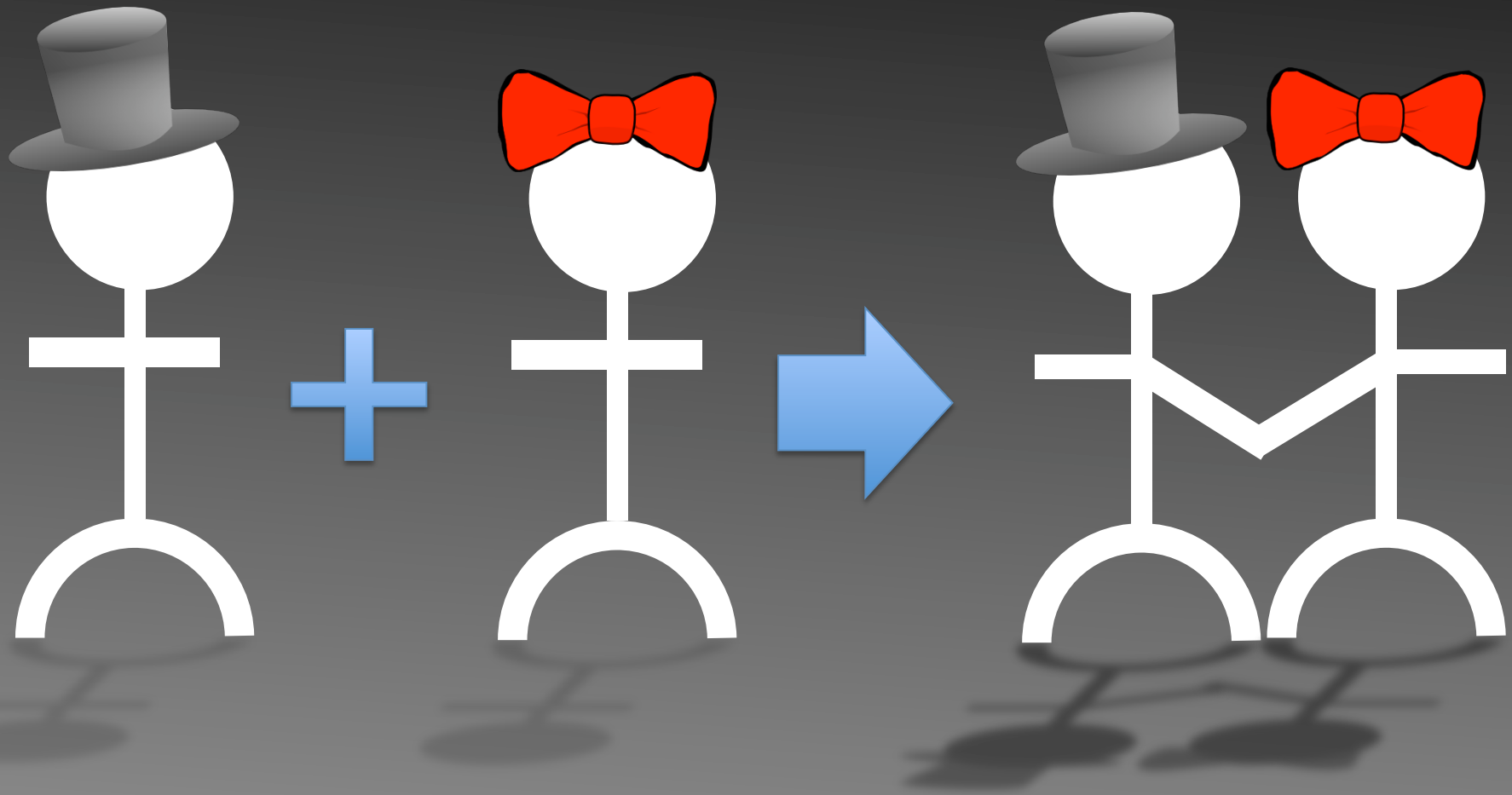
Types of Chemical Reactions



Aluminum & $CuCl_2$ by Mr. W

/Synthesis/

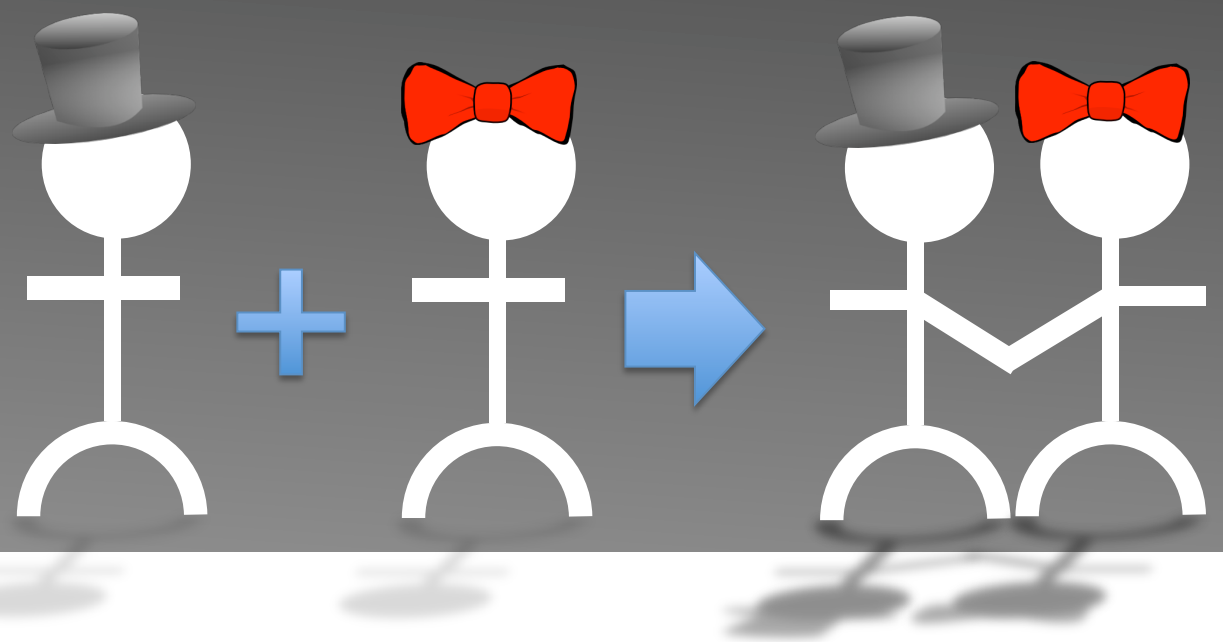
The get-together



/Synthesis/

The get-together

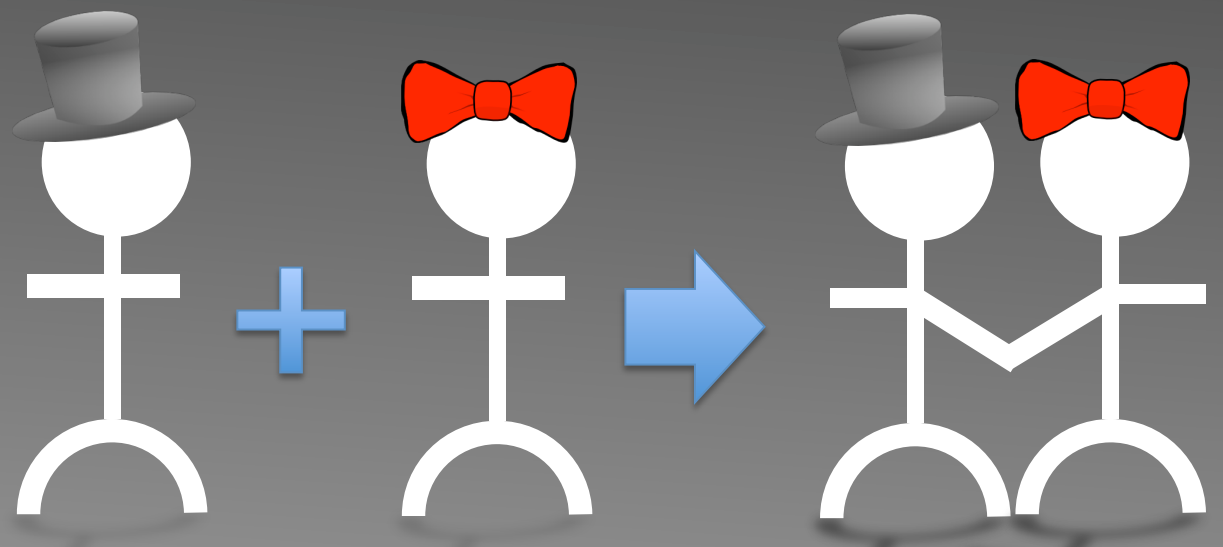
Two or more chemicals bond together forming one new substance.



/Synthesis/

The get-together

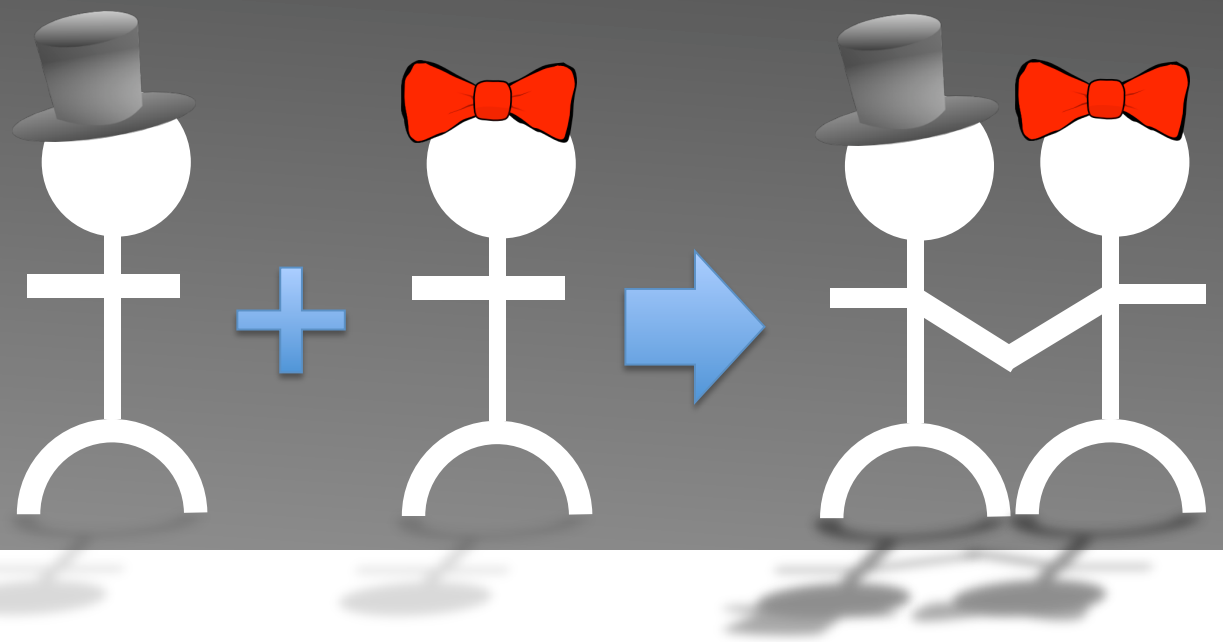
A + B → AB



/Synthesis/

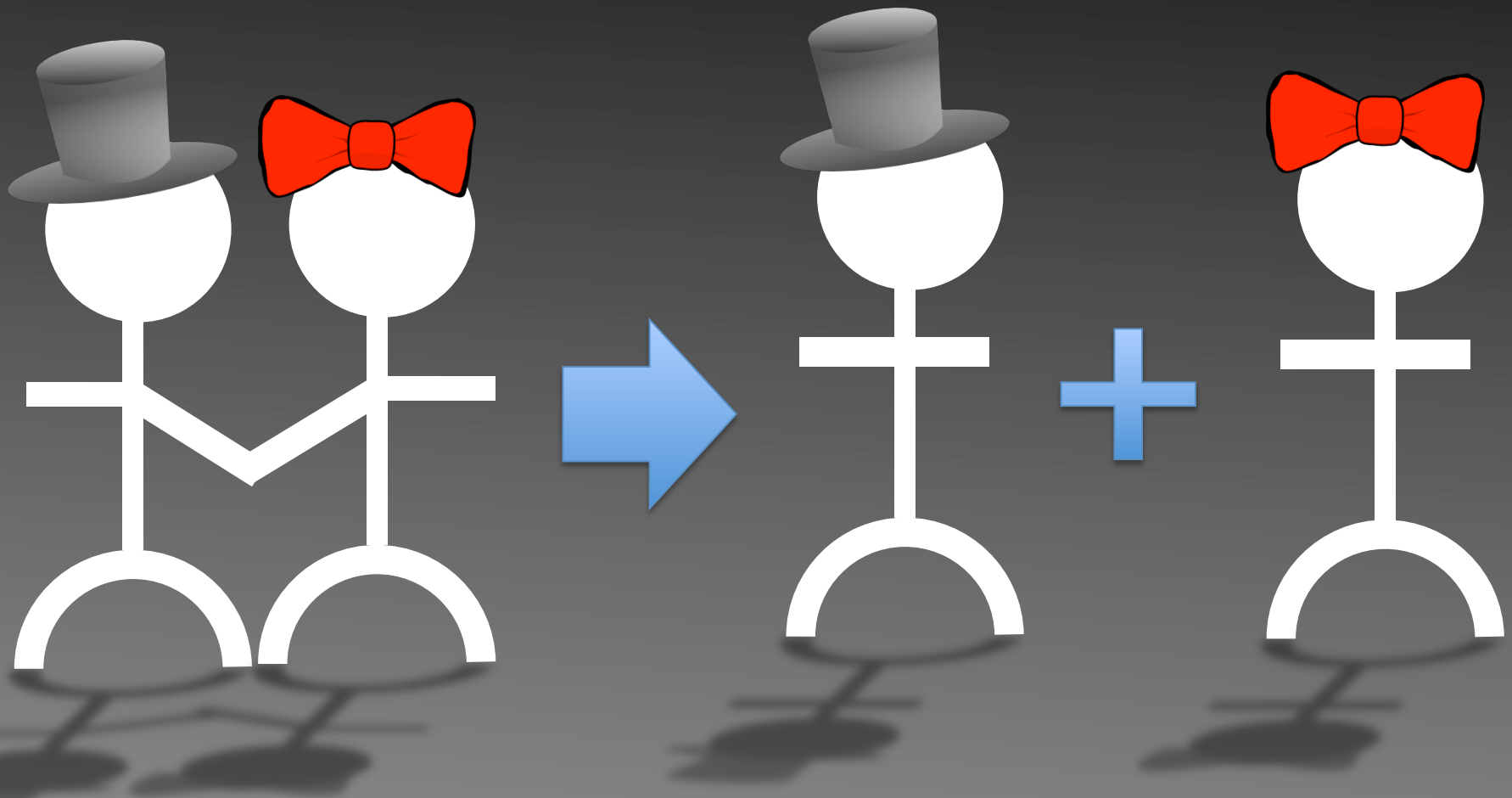
The get-together

$$2Na + Cl_2 \rightarrow 2NaCl$$



/Decomposition/

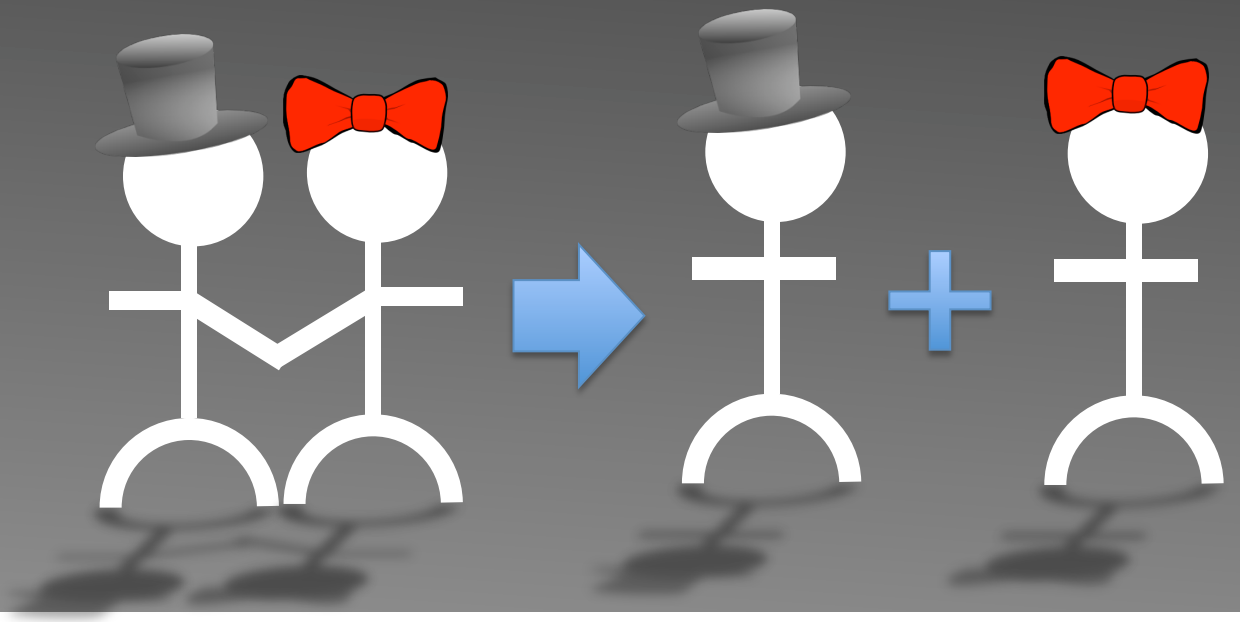
The break-up



/Decomposition/

The break-up

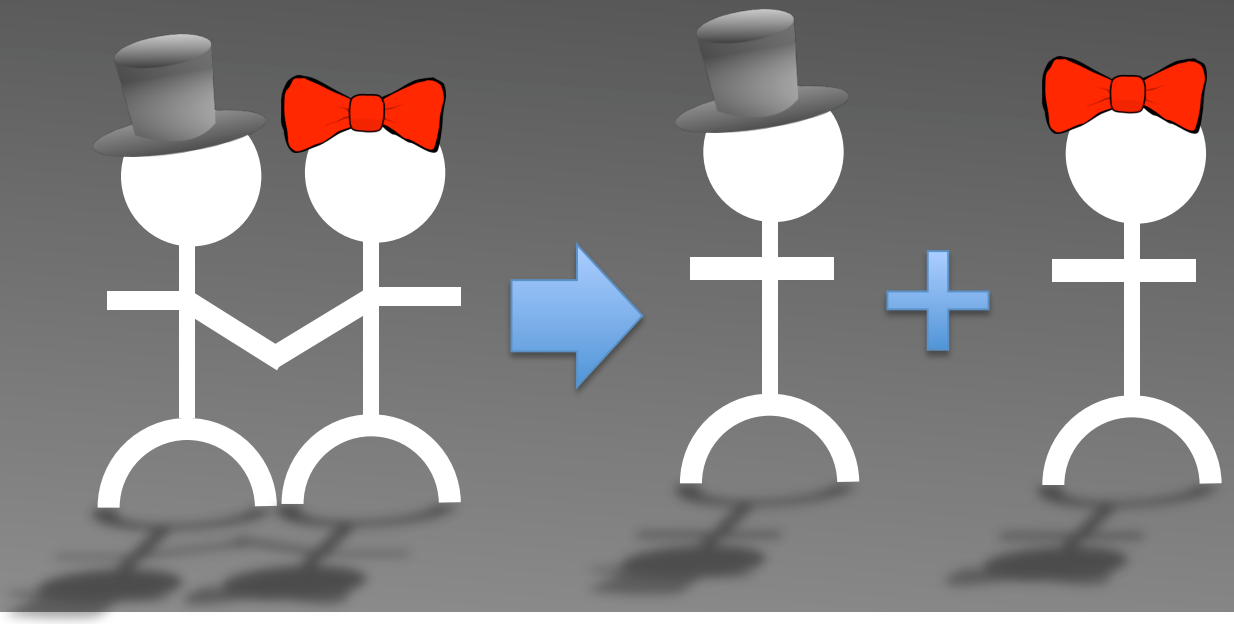
One substance breaks down into two or more separate substances.



/Decomposition/

The break-up

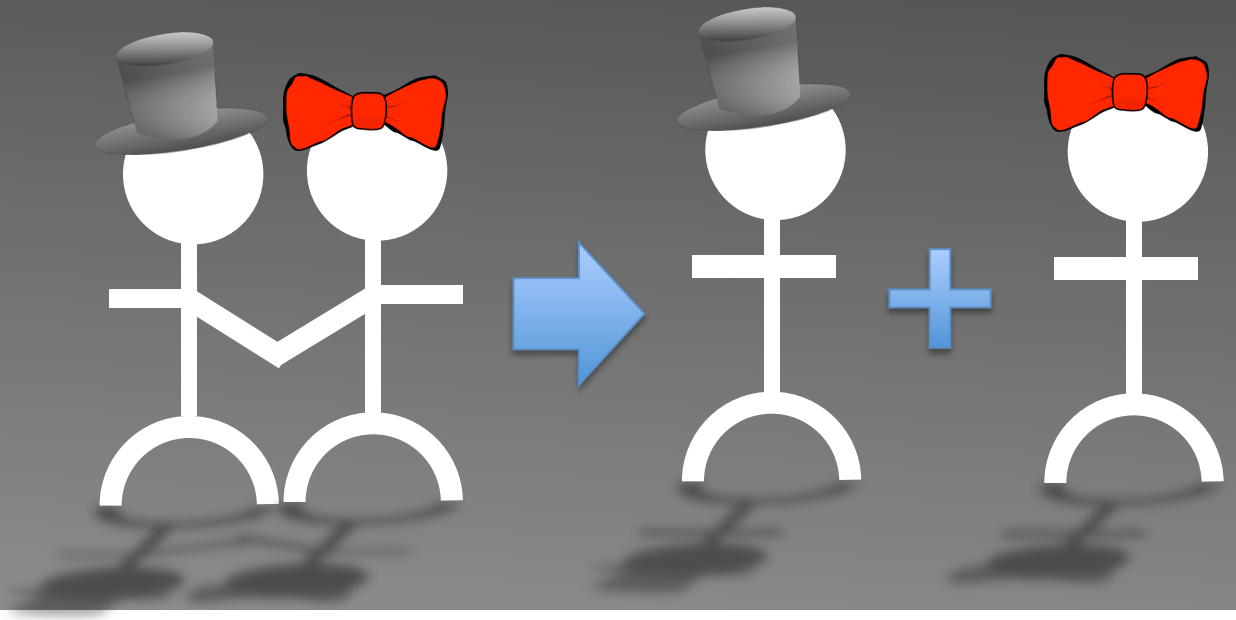
AB → A + B



/Decomposition/

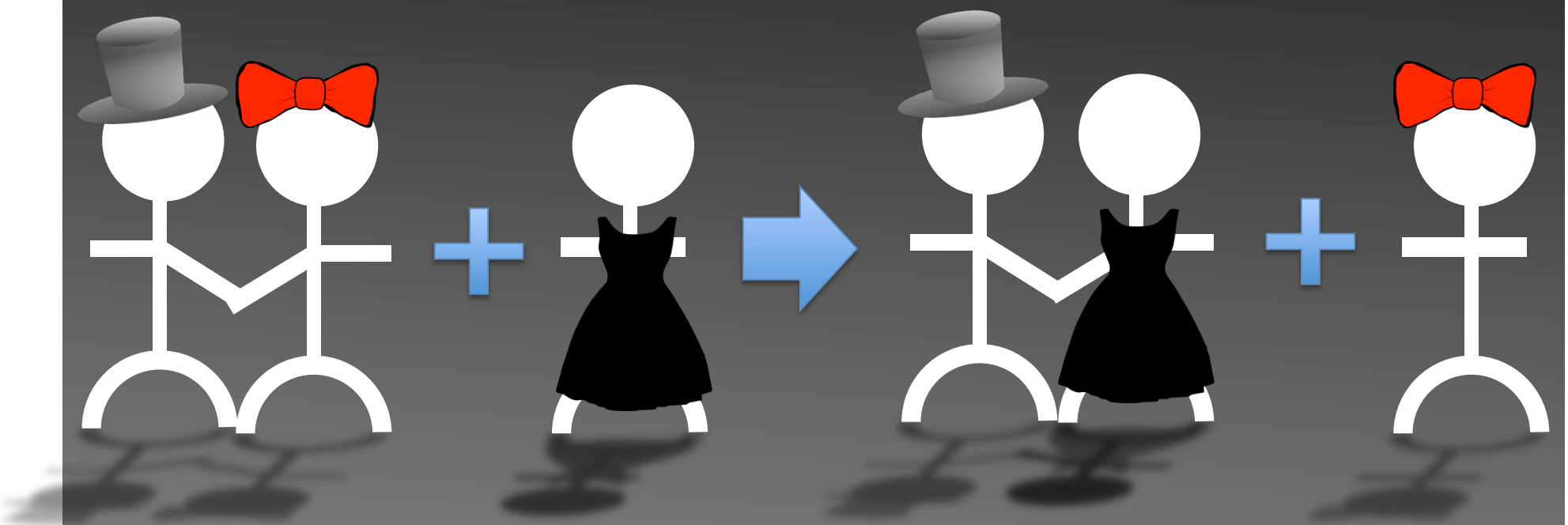
The break-up

$$2H_2O_2 \rightarrow 2H_2O + O_2$$



/Single Replacement/

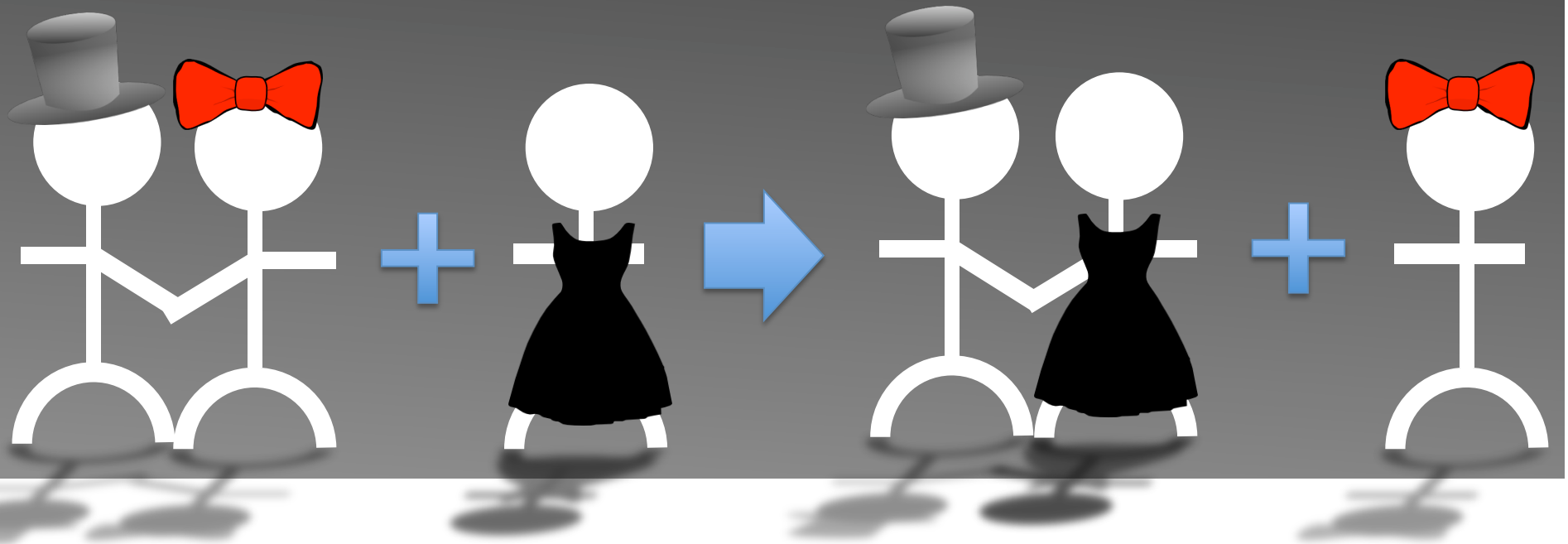
The cheater



/Single Replacement/

The cheater

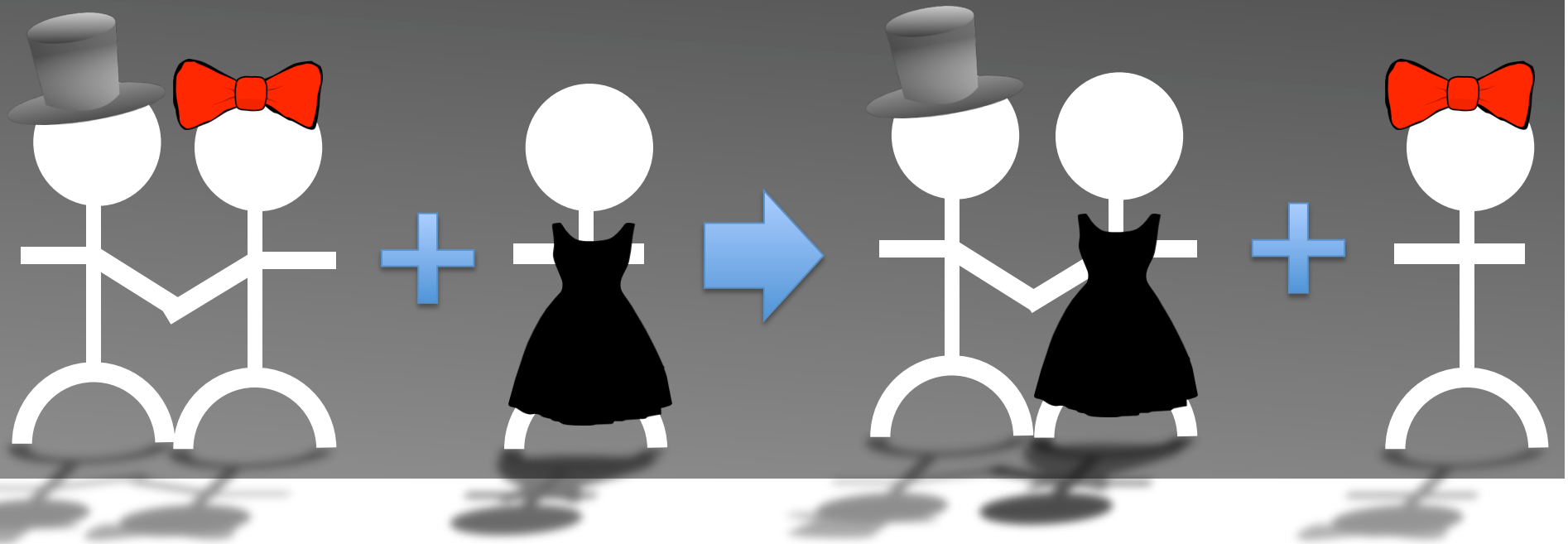
One element knocks another element out of a compound.



/Single Replacement/

The cheater

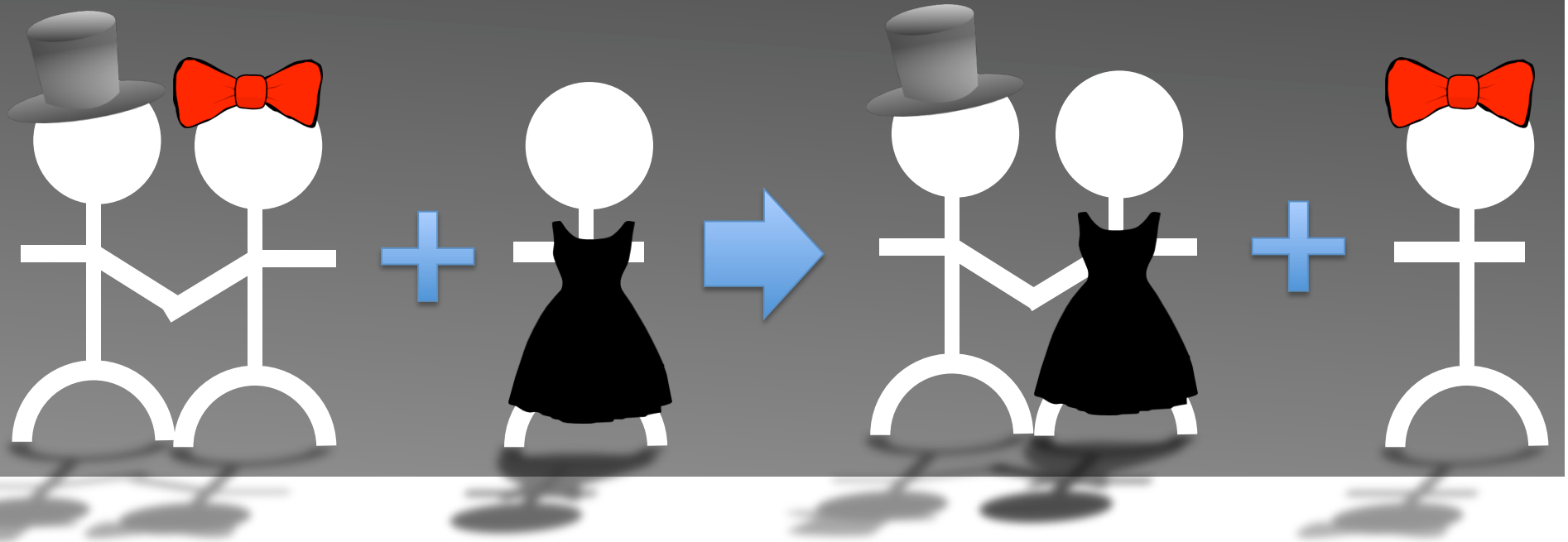
$$AB + X \rightarrow AX + B$$



/Single Replacement/

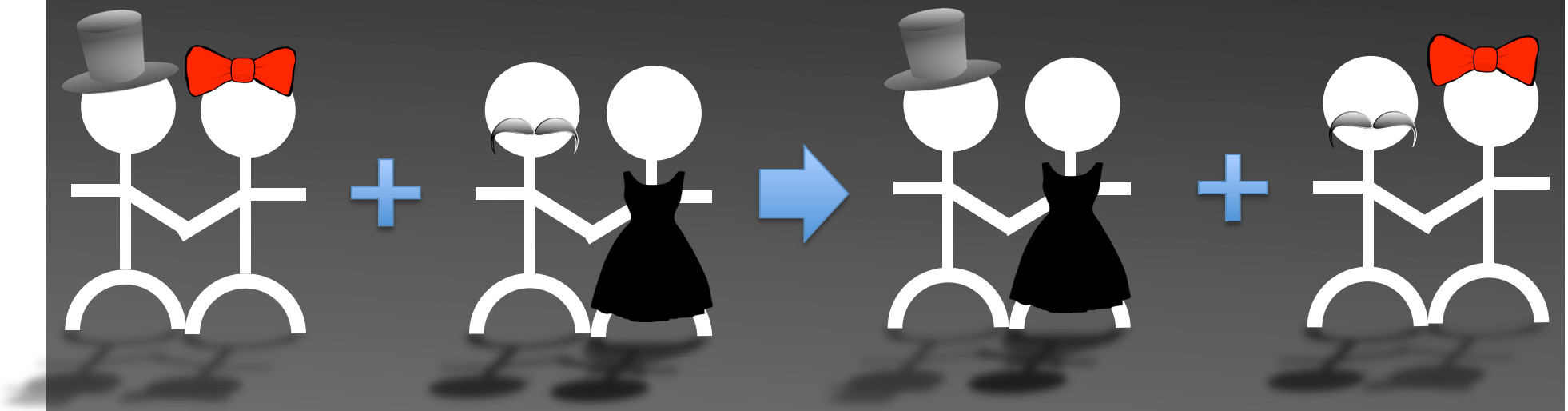
The cheater

$$2HCl + Zn \rightarrow ZnCl_2 + H_2$$



/Double Replacement/

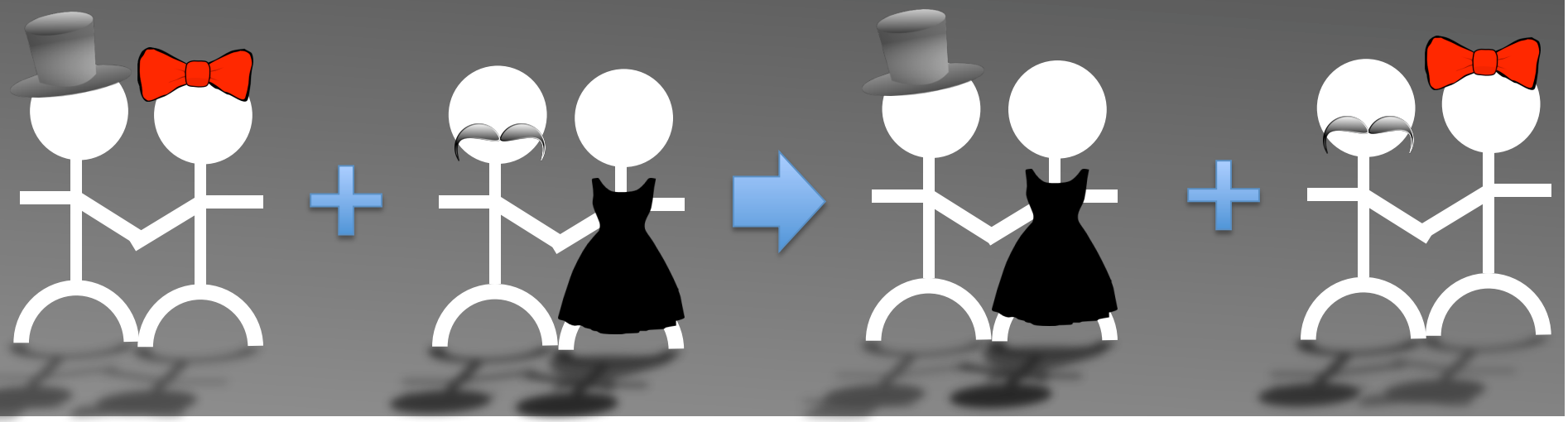
The swap



/Double Replacement/

The swap

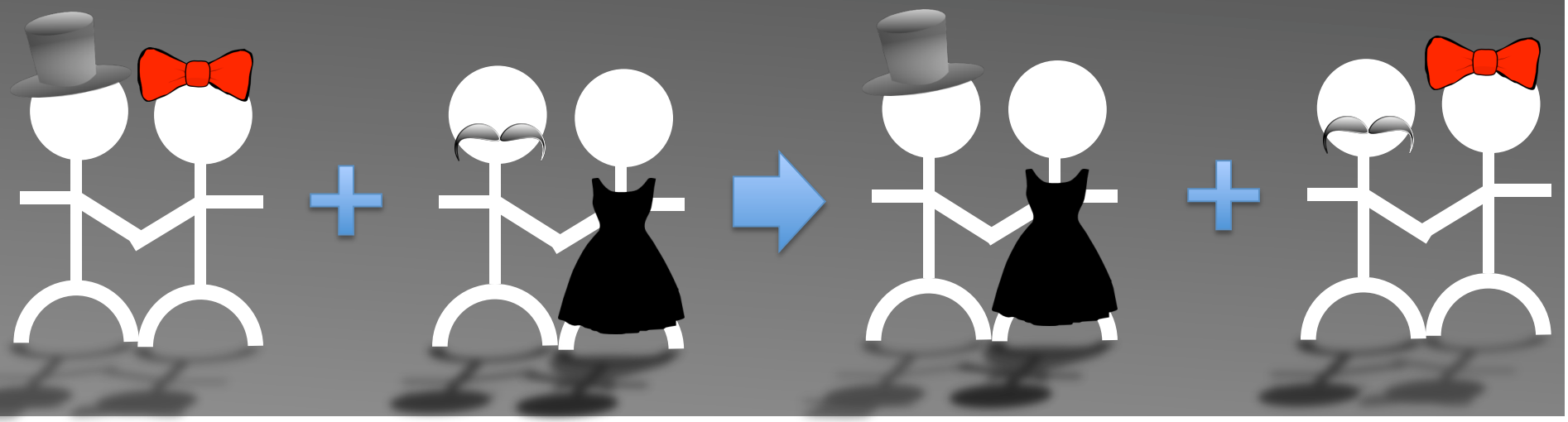
Two compounds switch ions with each other.



/Double Replacement/

The swap

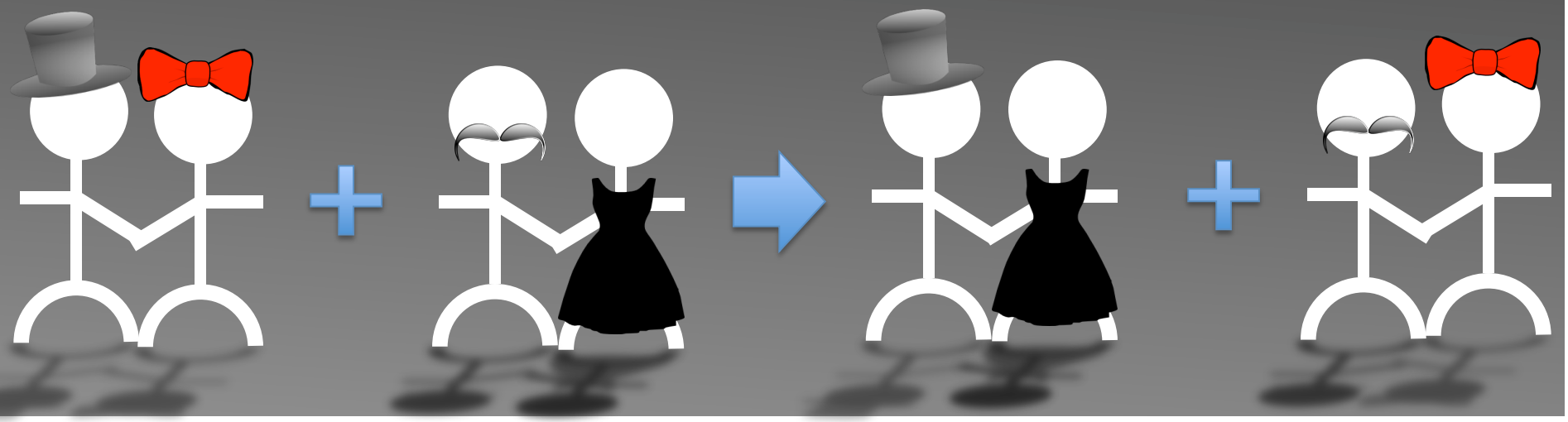
$$AB + XY \rightarrow AX + BY$$



/Double Replacement/

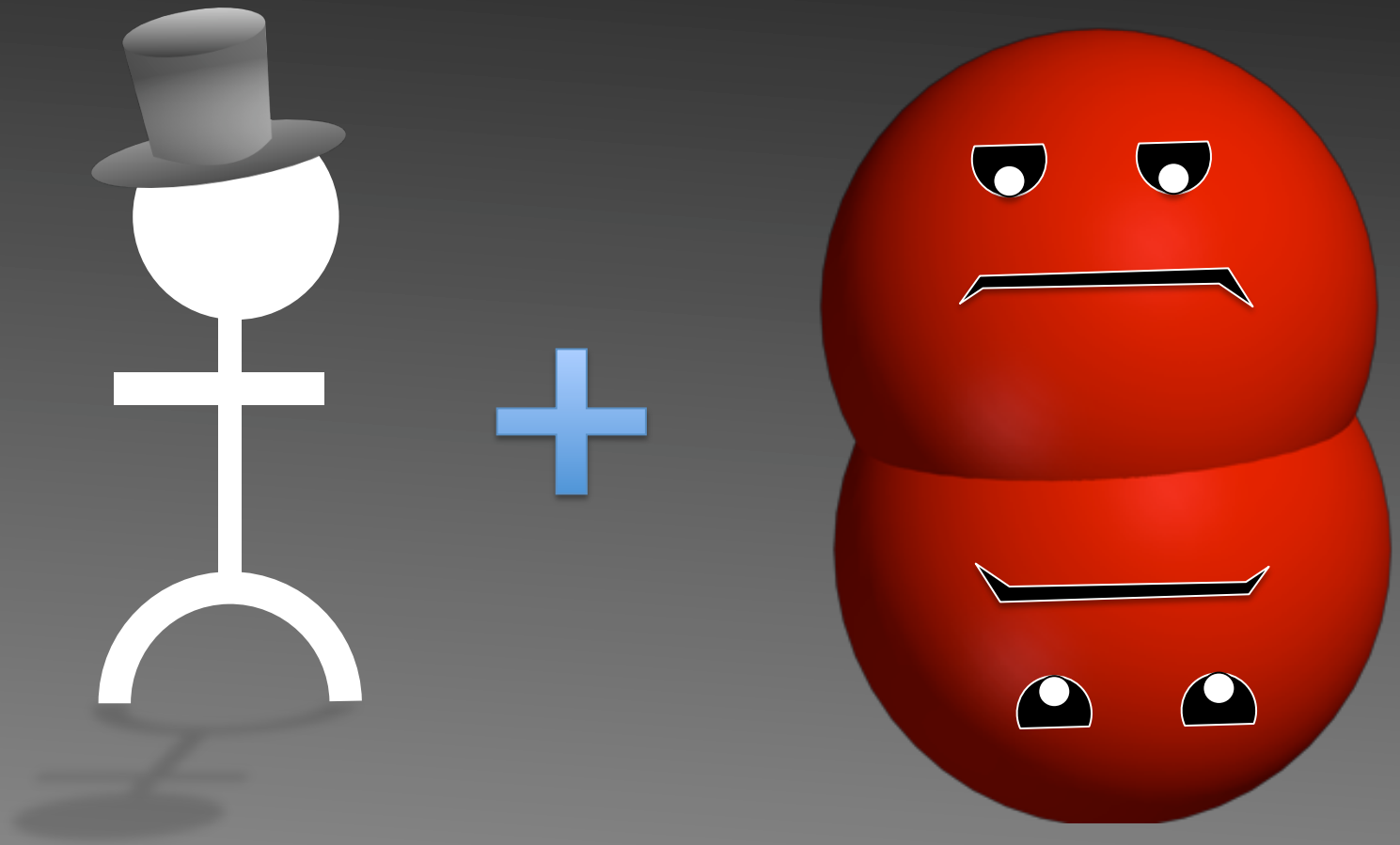
The swap

$BaCl_2 + Na_2SO_4 \rightarrow BaSO_4 + 2NaCl$



/Combustion/

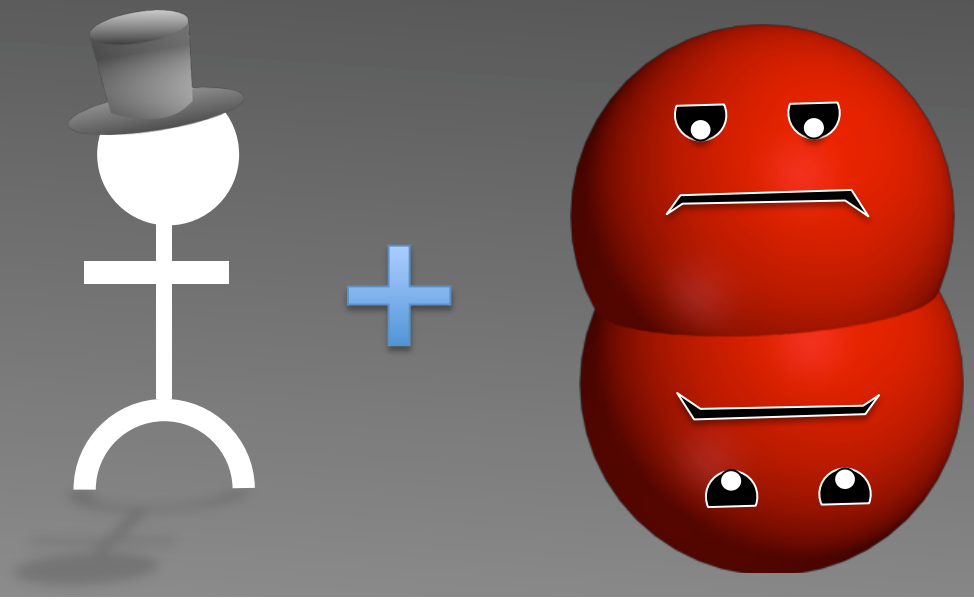
Everyone loves O_2



/Combustion/

Everyone loves O_2

A compound burns in oxygen gas.

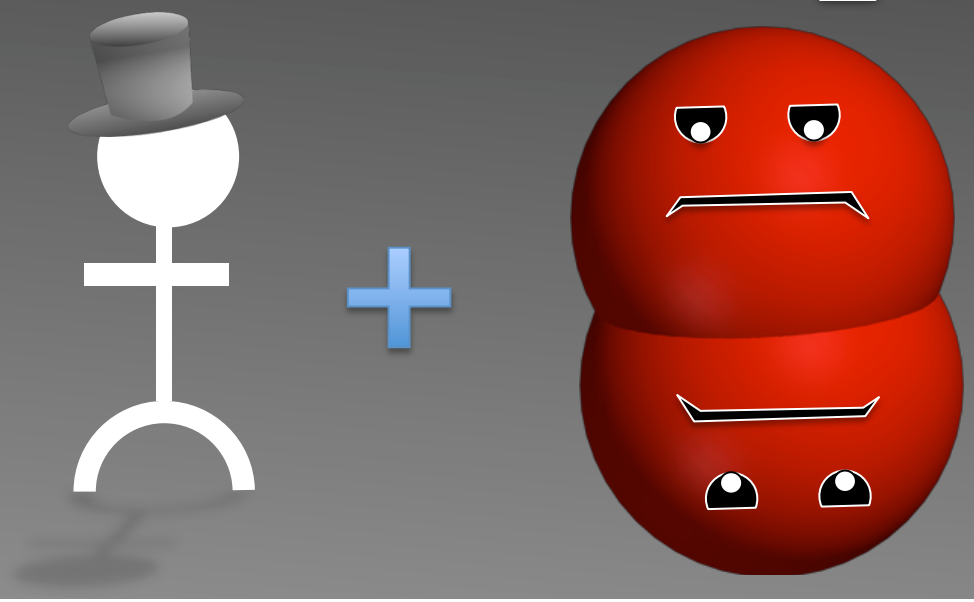


/Combustion/

Everyone loves O_2

Oxygen will always be a reactant.

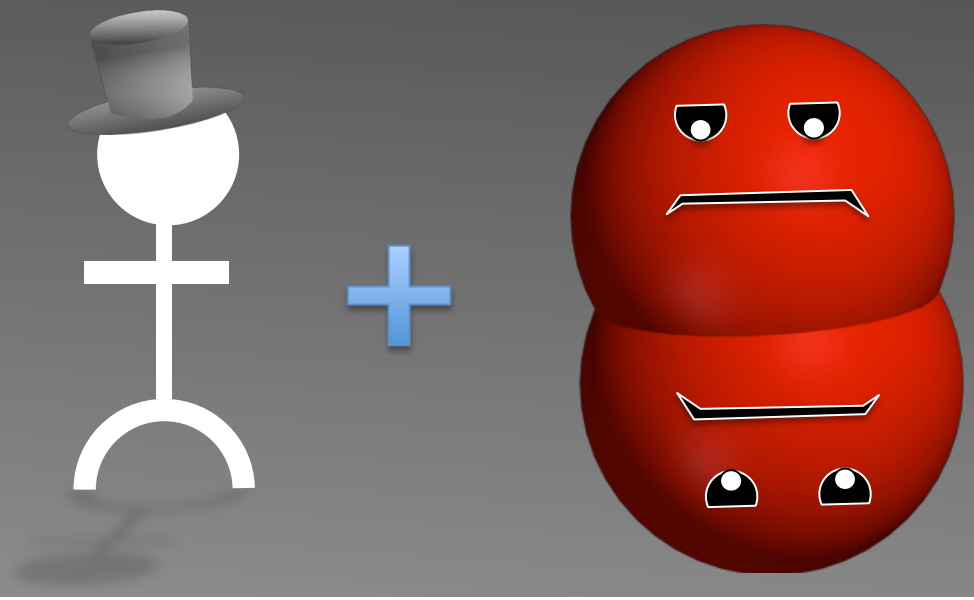
$A + O_2$



/Combustion/

Everyone loves O_2

$$2Mg + O_2 \rightarrow 2MgO$$



/Image Credits/

- Title Slide
  - Aluminum & Copper II Chloride by Mr. W