

Structural-Morphism System Property: *atis*Automorphismness

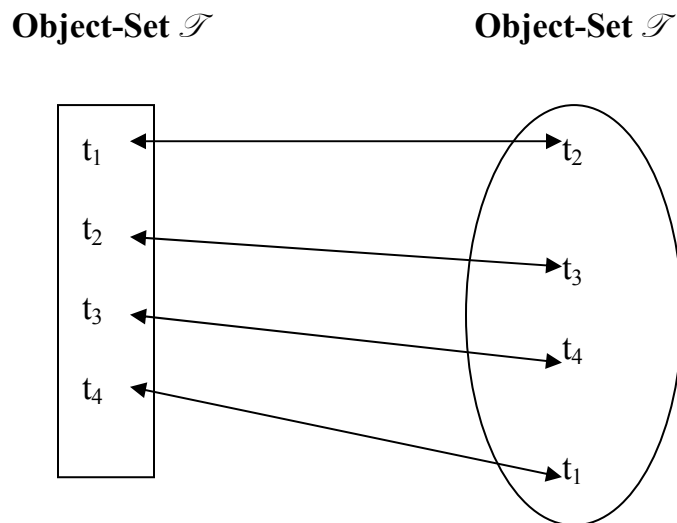
(Structural-morphism system properties are those properties that are part of the theory and define the mapping-relatedness of object-set components.)

Automorphismness, $\mathcal{A} =_{df}$ a homomorphism that is both an endomorphism and an isomorphism is an *automorphism*.

$$\mathcal{A} =_{df} \underline{\mathcal{L}}(\mathfrak{S}_1, \mathfrak{S}_1) \wedge \mathcal{L}(\mathfrak{S}_1, \mathfrak{S}_1)$$

Automorphismness is defined as an endomorphism and an isomorphism.

The following homomorphism, $f_{\text{auto}}: \mathcal{T} \rightarrow \mathcal{T}$, defines an *automorphism*:



Since in *ATIS* the mappings are not necessarily functions and the objects may be components rather than sets, an automorphism is defined as follows:

Automorphism, $\mathcal{A} =_{df}$ components of the same system, defined by the same affect relation, undergo a transformation that maintains the same affect relation.