Graph-Theoretic Property:atis Unilaterally Connected Components Set

(*Graph-theoretic properties* are those properties that are part of the meta-theory and have been abducted from graph theory to be used as a tool to provide solutions concerning the theory. Those solutions may be assigned as values to components or relations of the theory and thereby become part of the theory.)

Unilaterally connected components set, $_{U}$ \mathcal{O} , $=_{df}$ a set of system components that are unilaterally connected.

$$_{U}\mathscr{O} =_{\mathrm{df}} \mathfrak{X} = \{ \mathbf{x} | \mathbf{x} \in \mathfrak{R} \subset \mathfrak{S}_{0} \land \exists \mathbf{y} \in \mathfrak{R} [\mathbf{x} \neq \mathbf{y} \land (\mathbf{x}, \mathbf{y}) \in_{\mathit{uc}} E \lor (\mathbf{y}, \mathbf{x}) \in_{\mathit{uc}} E] \}; \text{ where } '\lor' \text{ is the exclusive "or."}$$

Unilaterally connected components set is a set of components, x, such that, the components, x, are in a subset of the object-set, and there exist distinct components, y, of the subset such that (x,y) are unilaterally connected or (y,x) are unilaterally connected, but not both.

