

## System Type: *atis* Homeorhetic System

(*System type* is part of the metatheory and describes configurations and properties that characterize a specific system.)

**Homeorhetic system**,  ${}_{HR}\mathfrak{S}$ , =<sub>df</sub> stability of *organic-essential subsystem* under *system environmental change*.

$${}_{H}\mathfrak{S} =_{df} \Delta\mathfrak{S}' \Vdash_{SB} \mathfrak{S}(\mathcal{W})$$

**Homeorhetic system** is defined as a change in the *negasystem* that yields the *stability* of the *organic-essential subsystem*.

It is important to recognize that during research, collecting data for empirical validation of theorems, or obtaining background information concerning a research project, you may identify new properties or system types. These terms may be introduced into the property list for the purpose of obtaining a proper definition and to see how such terms fit with other properties. We do this first by recognizing the intended use of the term by the original author. In this case, we have the following:

The British Biologist Conrad Hal Waddington was the leading advocate of his time of the need to integrate the findings of genetics with those of embryology and called upon cybernetics to support his accounts. Waddington coined the term homeorhesis (similar flow) to describe a system that returns to a trajectory, and the term chreod (or creode)—(necessary path) to describe the trajectory itself, a canalized pathway of change along the epigenetic landscape. "Canalization" was the term Waddington employed to refer to the process by which developmental reactions "are adjusted so as to bring about one end result regardless of minor variations in conditions during the reaction."

As this concept is developed, the original perception will be considered, but then it will be abstracted and generalized to get at the meaning of the concept in system terms. The above definition is the start, and this system-type will be further explicated in the future when it becomes more apparent what it helps us to understand about systems.