

# Development as a dynamic system

[Technology](#), [Development](#)



The dynamic systems theory in development explicated by Thelen and Smith conceptualized the process of development as a process of change. In the theory, the authors explained how the development of human occurred. The concept of the theory greatly uses the experiments and study on motor, perceptual and cognitive development. The dynamic system theory is considered as a new scientific paradigm that is continuously evolving from the concept of development as a dynamic, non-linear, self-organizing or even chaotic system.

The dynamic system theory of development encompasses different principle widely used and accepted in different fields such as in physics, chemistry, and mathematics. (Stolorow, 1997) Thelen and Smith concerned with the explanation as to how development occurs in humans proposed a radical alternative to the exiting cognitive theory. (Storolow, 1997) Their emphasis on dynamic representation of the process and the process evoking the concept of change is also stressed.

As an alternative to the traditional cognitive theory existing at the time the theory was developed, it attempt to apply the complexity theory topsychologyas they reinterpret several traditional concepts used in the cognitive development theory in psychology. In this approach, the theory started with fundamental questions with regards to the cognitive theory.

As the new theory of dynamic system of development revealed, it is regarded as a theory of development of cognition and action, at the same time unifying the recent advances in their conceptualized theory and the current research findings and analysis in the neuroscience and neural

development field. The dynamic system of development theory shows how the processes governed by principles of exploration and selection and multimodal experiences form the bases for self-organizing perception and action categories. (Thelen, 1994) The theory became a powerful source of new metaphors for the field of psychoanalysis.

The theory includes analysis of phenomena like conflict, transference, resistance and the unconscious intertwined with the perspective of the development process as dynamically emergent properties that elucidate the process of pattern formation and the process of change. The theory is useful in understanding the complexity of the development process. As a function of the theory, it permits theoretical statements about development of societies and groups but also the individuals within the societies and the entities that govern the group.

The dynamic system approach attempts to answer the different levels of problems and at some point avoids it by defining the process of development being multilayered. The theoretical assumptions of the dynamic system theory tries to avoid the concept of stages in outward behavior because the concept of the theory acknowledges the fact that outward behaviors that appears to be staged-like is or can be explained through the occurring continuous changes in the components governing those behaviors. (Thelen, 1994)

The theory stresses the importance of the concept of change and transition, and attributes the process of development in the mechanisms of change that has a process of the first step towards the last. The theory focuses on the concept of change, and limits its regards to change being time-bounded or

as a series of stages with transitions. Dynamic systems being self-organizing are a consequence for the idea that development is a result of spontaneous emergence of higher-order structure.

The emergence of higher-order structures contributes to the recursive interactions among the simple components included in the process. Essentially connected with human development is the concept of human individuals being developing organisms having continuous and numerous genetic, physiological and psychological attributes. In turn this results to behavioral changes which include the interaction between the individual and its environment. In turn the dynamic system theory of development is given less of the credit it deserves as a theory that explains further the human development of an individual.

The concern of the theory is to stress the value of the concept of change and how it is important in the understanding of development and other factors that surrounds the concept of development. The dynamic system of development in humans greatly contributes to the fact that behavior is the outcome of the interaction between the individual and its environment. Thelen and Smith objectively presented a new theory that governs the principle of development being a process of change, which includes the transitory and stages in resulting to development.

Reference:

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