Heinz Werner

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Heinz Werner (February 11, 1890 – May 14, 1964) was an Austrian psychologist who played an active role in defining the field of developmental psychology at the start of the 20th century. While initially seeking to become a composer and music historian, he changed his mind after listening to a lecture on Immanuel Kant at the University of Vienna. Werner became engrossed in topics of philosophy and psychology (which were combined at the time), and he wrote his dissertation on the psychology of aesthetic experiences. Subsequently he worked at the University of Hamburg, where he published the first edition of his famous book, *Comparative Psychology of Mental Development*. In 1933, he was terminated from his position by Nazi leadership in Germany, after which he moved to the United States. There, he worked at a number of universities until settling at Clark University in 1947.

The breadth of Werner's interdisciplinary training provided the impetus for a developmental theory that aligns with the *orthogenetic* principle. Orthogenesis is the idea that organisms have an internal driving force to evolve towards a goal (vs. passively sustaining themselves in their current form). Werner used this idea of orthogenesis to create a framework for understanding a broad range of phenomena, including child development, psychopathology, individual differences, and cultural variability. He emphasized that the seemingly separate fields

of biology, anthropology, and linguistics are mutually related. Specifically, he argued that cognitive development must be ontologically similar to the development of the species as a whole. Thus, Werner laid out a theory of holistic development that utilized known processes of biological change (e.g., evolutionary differentiation, homeostatic equilibration) to explain both the cognitive and non-cognitive aspects of human experience.

One of Werner's assumptions was that organisms cannot be divorced from their environment. Applied to human sense-making, this means that there is an ongoing interaction between deliberate cognitive processes and non-cognitive processes of sensory-motor adjustments. Werner believed brain-based forces were at the center of this interaction, in line with Gestalt psychology. However, Werner went beyond traditional Gestalt psychology and claimed that the organizing forces affect the entirety of an individual's experience, not just physical stimulation. Perceptual qualities are not simply registered, but are actively constructed in the context of a holistic experience. This holistic experience includes the person's imagination, fantasy, and memories of real-life events. Even emotions are integrated into the holistic fabric, known as *physiognomic perception*. Thus, Werner's theory of sense-making challenges the traditional division of mental life into categories of cognition, affect, and social relations.

Another of Werner's assumptions was that development—whether that of a species, of an organism, or of the mind—involves the differentiation and hierarchical integration of initially undifferentiated units: Simple structures turn into increasingly complex forms. Werner characterized early thinking by the interaction of feeling and thinking, the child being inclined to

see objects in terms of expressive properties. This process gives early perceptions a high degree of concreteness and embeddedness, with a blending between the perception of the self and the perception of the world. Despite being devoid of logic, it endows the young child with a sort of practical or adaptive intelligence. Over time, the child is said to differentiate between the various facets of experiences, which provides the child with a sort of rational intelligence and abstract reasoning. Werner also applied this model to explain cultural and individual differences.

Werner's approach incorporated the idea of *nonlinearity* in development. Orthogenetic development does not necessarily follow a prescribed trajectory of increasing differentiation in all cases over time. Drawing from anthropological evidence, Werner argued that development is a function of context and constraints on the environment in which one develops. Along the same lines, a "primitive" developmental status is not necessarily less adaptive than the advanced developmental status of abstract thinking. It is merely different. One can move up and down the orthogenetic spiral and still return to more global modes of experience periodically. Such nonlinearity might occur under conditions of challenge, stress, conflict, or fatigue, but also in dream states, psychopathological conditions, or drugged states. Though rational thinking is sometimes considered a higher form of intellect, the more primitive forms nevertheless have benefits that can be channeled towards constructive or creative ends.

Werner's legacy can be seen in approaches to development that emphasize organismenvironment relations and the interplay between cognitive, sensory, and motor processes. Most notably, perhaps, is his influence on dynamic-systems theories of language development. The prevalent language-learning theories postulate that symbol acquisition is exclusively a cognitivist and sensory-processing activity. In contrast, Werner saw learning as being grounded in a holistic experience of feelings, fantasy, social interactions, and pragmatics. Internal and external acts of symbolization are said to integrate to give rise to meaning, with the emergence of symbolic acts not only being the outcome of cognitive order but also contributing to it. This radical interactionism stands in sharp contrast to the hyper-rational views that dominate contemporary psychology, laying the groundwork for a more humanistic view of perception and reasoning.

Further Readings

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