

Andreas Demetriou

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Andreas Demetriou was born August 15th, 1950 in Stongylo, Famagusta, Cyprus.

Demetriou attended the University of Thessaloniki and obtained a Ph.D. in psychology in 1983.

After completing his doctoral degree he was a professor of developmental and educational psychology at the University of Thessaloniki until 1996. Demetriou then became a professor at the University of Cyprus, serving in various leadership positions from 1996 to 2008, including chairing the Department of Educational Science and serving as dean for the School of Humanities and Social Sciences and dean of the School of Social Sciences and Sciences of Education. He also became the founding president of the Interim Governing Board of the Cyprus University of Technology.

Much of Demetriou's research and academic career has focused on cognitive development, aiming to expand on Piagetian theories and develop a comprehensive theory which explains and describes intellectual development throughout the lifespan. The theory he developed posits three functional levels of organization for the human mind. The first level is that of processing potentials, which underlies fundamental attention and information processing mechanisms (i.e. attending to, selecting, representing, and manipulating information). Another level is oriented to the environment, which includes specialized thought processes and functions that represent and operate on information from various environmental domains (i.e. categorical, quantitative, causal, spatial, propositional, and social thought). The third level of organization is self-oriented, which underlies executive control and planning. This self-level is used to monitor, represent, and regulate the processing potential and environment-oriented levels; furthermore,

the self-level generates self-perceptions resulting in an overall self-image, which influences how people engage in social interactions and problems solving.

Demetriou described three conditions necessary for a system to be self-regulating: firstly, there must be ongoing self-monitoring to that evaluates the systems current status and ongoing activity; secondly, the system must be organized to describe the system's nature, history, typical behavior and preferences, and future aims; thirdly, the system must be able to self-modify using skills strategies to direct its present state toward another state or activity. These self-oriented processes have evolved within humans to created individualized profiles of skills and abilities to adapt to facilitated interaction with the world. Furthermore, these self-oriented processes enabled humankind to cope with the multitude of variations within the world.

Demetriou also outlined types of cognitive change (e.g. changes within organizational levels of the mind, changes in the relationship between organizational levels of the mind, and changes in the efficiency of cognitive structures) and the underlying mechanisms that produce cognitive change throughout development (e.g. metarepresentation, bridging, interweaving, and fusion). Demetriou applied his theory to produce a model for how the education system should educate students. His model dictates that educational priorities should target the cognitive milestones within each developmental phase. Furthermore, Demetriou identified that the education process should aim to facilitate student development by producing conceptual change through the use of mental models, efficiently utilize student representation capacities, helping students utilize analogic and deductive reasoning, teaching students to learn how to learn, and to help students develop critical and creative thinking processes.

Later in his career, Demetriou began exploring the construct of intelligence and how it relates to brain development and personality development. Demetriou views intelligence, mind,

and personality as complimentary elements of individuals' interactions with the physical, social, and symbolic environments. Specifically, he identified intelligence as the abilities required for knowledge acquisition and coping to the changing environment.

Mind was considered the ability relate to oneself and others and to cope with the social environment. Personality was identified as an individual's dispositions when relating and interacting with the world. Demetriou's research found that the personality trait of openness to experience had a weak positive association with cognitive ability, whereas the personality trait of conscientiousness had a weak negative association with cognitive ability. Additionally, the relationship between personality and cognitive ability weakened with age. Furthermore, it was identified that self-awareness and self-regulation mediated the relationship between cognitive ability and personality. This finding supports Demetriou's theory that the self-oriented level maps both cognitive and personality characteristics.

In 2008, Demetriou left the University of Cyprus became the Minister of Education and Culture of the Republic of Cyprus, serving in the position until 2011. During his time as Minister of Education and Culture, Demetriou initiated new curricula for primary and secondary schooling. Furthermore, he expanded the university system within Cyprus and contributed to elevating Cypriot universities into regional centers of excellence and cooperation. Demetriou was also involved in reforming systems of cultural governance to include creators into the decision making process regarding arts and culture, as well as other significant administrative changes within the Ministry of Education and Culture. Starting in 2011, he became president of the University of Nicosia Research Foundation and also served as president of the Pan-Cyprian Association of Psychologists beginning in 2012.

Further Reading

Demetriou, A., & Kazi, S. (2001). *Unity and modularity in the mind and the self: Studies on the relationships between self-awareness, personality, and intellectual development from childhood to adolescence*. London: Routledge.

Demetriou, Andreas. (1993). In quest of the functional architecture of the developing mind: The Aristotelian project. *Educational Psychology Review*, 5, 275-292

Demetriou A., & Raftopoulos, A. (1999a). Modeling the developing mind: From structure to change. *Developmental Review*, 19, 319–368