

**Applications of
Maharishi Vedic Science
to Developmental
Psychology**

SECTION INTRODUCTION

Applications of Maharishi Vedic Science to Developmental Psychology

Victoria K. Alexander
Maharishi University of Management

My husband, Dr. Charles N. (Skip) Alexander, was a developmental psychologist whose work extended the boundaries of modern psychology's view of human development (Orme-Johnson, 2000). This volume reflects his wide ranging research interests and influence. The articles in this section relate specifically to developmental issues.

His developmental theory is summarized (Alexander et al., 1990) in his jointly edited book, *Higher Stages of Human Development* (Alexander & Langer, 1990), which posed the question, "What is the endpoint or highest possible state of human development?" and included contributions from leading theorists in lifespan development. To Dr. Alexander, this question was fundamental.

How one conceives of the highest state or endpoint of human development is critical, for it contains one's perception of the direction, possibilities, and mechanisms of human growth. Further, all earlier stages of development are invariably cast as sequential

Author's Info: Victoria K. Alexander, Department of Management, Maharishi University of Management, Fairfield, IA 52557-1157; phone and fax (641) 472-1113; email valexand@mum.edu.

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approximations of this final goal. If there has been a primary direction to my personal and professional life, it has been this quest for understanding the highest forms of human development and the means for their cultivation... (Alexander & Alexander, 2000, p. 191).

The wide ranging research he conducted on the effects of the Transcendental Meditation program on people of all ages in a variety of settings including preschool (Alexander, Kurth, Travis & Alexander, 2005); college (Chandler, Alexander & Heaton, 2005); prison (Alexander & Orme-Johnson, 2003; Alexander, Rainforth, Frank, Grant, von Stade, & Walton, 2003; Alexander, Walton, & Goodman, 2003); corporation (Alexander, Swanson, Rainforth, Carlisle, Todd & Oates 1993); nursing home (Alexander, Langer, Newman, Chandler & Davies, 1989); and entire nation (Alexander & Davies, 1989) was a reflection of his belief in the fundamental impulse of human life to grow, develop and evolve.

As a young student at Harvard, he was greatly influenced by William James (1902) and Abraham Maslow (1968) who both described the profound impact of transcendental experience on the life and behavior of the experienter. Dr. Alexander reasoned that if some individuals were able to experience what appeared to be higher levels of functioning for varying periods of time, the capacity must be inherent in the human physiology and might be possible to experience as a full-time reality.

Theorists like Piaget, Erikson, and Kohlberg gave him some insight into development, but he was disappointed that their theories did not include the kind of self development described in classical Eastern philosophical traditions and explored by James and Maslow. His own experience of the Transcendental Meditation (TM) technique and his exposure to the theories of Maharishi Vedic Science as expounded by Maharishi Mahesh Yogi made him realize his "life task would be to apply the empirical and conceptual tools of social science to the investigation of higher states of consciousness..." (Alexander & Alexander, 2000, p. 191).

Recognizing the challenge of studying transcendental experiences and higher states of consciousness (Alexander, Heaton, & Chandler, 1994), Dr. Alexander chose to study the effects of the Transcendental Meditation technique on 90 maximum security prisoners in Walpole State prison for his PhD dissertation. He reasoned that if he could stimulate growth in a population that was generally considered recalcitrant to change he would make a powerful statement about the efficacy of the TM technique as a tool that could help "unfreeze human development" (Alexander et al., 1990).

Using the Loevinger (1976) test of ego development, Dr. Alexander found that the TM inmates grew more in cognitive complexity, character

and social development in one year than typical college students over a four-year period. There was no change or significant improvement in prisoners participating in four other programs (drug rehabilitation, counseling, Muslim and Christian groups). The TM participants progressed from the "conformist" stage to the "self aware" stage (Alexander, Walton, & Goodman, 2003).

In a second one-year longitudinal study, inmates who had already been practicing the TM technique for at least one year and who were initially at the "self aware" stage moved to the "conscientious" stage, the highest level typically obtained in adult samples (Alexander & Orme-Johnson, 2003). These internal changes were reflected in behavior changes as indicated by a lower recidivism rate among the TM inmates released from prison over a 3.5 year period in comparison to the other four programs (Alexander, Rainforth, Frank, Grant, von Stade, & Walton, 2003).

Having documented profound growth through the practice of the TM technique, Dr. Alexander created a developmental model to understand the mechanism underlying these changes (Alexander et al., 1990). Relying on the description of higher states of consciousness and the innate structure of the mind as outlined by Maharishi Vedic Science, he attempted to connect current psychological theory with the development of higher states.

Seven major states of human consciousness are delineated in Vedic Science's theory of human development (Maharishi Mahesh Yogi, 1972; Alexander, Boyer & Alexander, 1987). Each state of consciousness is associated with distinct physiological correlates and gives rise to different forms of knowledge. The first three are familiar experiences of every individual and the last four are higher states. In this theory, the fourth state, transcendental consciousness, is central because repeated experience of it cultures the physiology and gives rise to the subsequent states. The seven states and their corresponding forms of knowledge are:

- | | |
|---------------------|--|
| 1. Deep sleep state | No experience of self or environment. No self-referral. |
| 2. Dreaming state | Illusory experience of self or environment. Very limited self-referral. |
| 3. Waking state | Experience of excited levels of mental activity and the surface value of the environment. The true nature of the Self as transcendental consciousness is obscured by the active levels of thought and perception. Self-referral awareness is |

- fragmented and experienced as knower, known and process of knowing.
4. Transcendental consciousness The state of least excitation of consciousness, pure consciousness, the source of thought, the simplest form of awareness. Thought and perception are transcended. Knower, known and process of knowing converge into one wholeness of pure consciousness, the cosmic psyche. In the state of self-referral, for the first time infinity is awake to itself. "It is wholeness, aware of itself, devoid of difference, beyond the division of subject and object — transcendental consciousness." (Maharishi Mahesh Yogi, 1977, p.126).
 - 5 Cosmic consciousness The Self is permanently maintained along with the changing states of waking, dreaming and deep sleep. The self-referral state of pure consciousness, the Self, silently witnesses daily activity.
 6. God consciousness or refined cosmic consciousness Perception of the finest manifest value of every object along with the permanent experience of the Self. The perception of relative existence raised to its most refined manifest value. Only the finest separation remains between the infinite self-referral nature of the knower and the boundaries of the objects known.
 7. Unity consciousness Full realization of the Cosmic psyche — the total potential of natural law. The absolute status of self-referral is gained. Infinity is located at every point in creation, and every point in creation is raised to the infinite status of the self. The entire cosmic life is realized to be nothing but the Self functioning within itself. (This description of higher states is adapted from Alexander & Boyer, 1989, p 328.)

In addition to the theory of higher states of consciousness, Maharishi Vedic Science postulates a theory of levels of mind that describe the

structural and functional relationships between consciousness and sensory, cognitive and affective processes.

Vedic Psychology¹ postulates that the mind is hierarchically structured in layers from gross to subtle: from highly active to settled, from concrete to abstract, and from diversified to unified (Maharishi Mahesh Yogi, 1972). Maharishi specifies the following levels of mind: the faculties of action and the senses, desire, the thinking mind, the discriminating intellect, feeling and intuition, and the individual ego (Dillbeck & Alexander, 1989; Maharishi Mahesh Yogi, 1969). According to theory, underlying the subtlest level of the individual knower and transcendental to it is the Self, an abstract, silent, completely unified field of consciousness, identified as the self-sufficient source of all mental processes (Alexander et al., 1990, p. 290-291).

In this model, human development is seen as the progression of the "dominant level of awareness" to successively deeper levels of mind, from "senses" (sensorimotor stage) to "desire" (preoperational stage) to "mind" (concrete operational stage) to "intellect" (formal operational stage) to "feeling and intuition" (early post formal, postconventional stage) to "ego" (late post formal, postconventional). Figure 1 shows the relationships of Vedic Science to the work of contemporary developmental psychologists Piaget and Loewinger.

We propose that the functioning of conscious awareness through each progressively deeper intrinsic level of the mind may provide the corresponding foundation for each sequentially higher expression of cognitive and personality growth observed by developmental psychologists. Although the ultimate status of the knower or "I" is always pure consciousness (Maharishi Mahesh Yogi, 1969), in the waking state of consciousness, awareness becomes localized or conditioned by the active processes of mind and corresponding structures of the nervous system. We suggest that the deepest level of mind through which awareness predominately functions would determine an individual's current developmental subperiod in waking stage because the capacities available at this level would shape the individual's understanding of self and world in a fundamental way (Alexander, Heaton & Chandler, 1994, p. 55).

According to Dr. Alexander's model, human development is a U-shaped function, first developing inwardly until transcendental consciousness is reached, then developing outwardly as it brings the qualities of transcendental consciousness into all levels of mind and activity (Orme-Johnson, 2000).

¹ Theories from Maharishi Vedic Science were incorporated by Dr. Alexander and his colleagues into Maharishi Vedic Psychology (Alexander & Boyer, 1989; Dillbeck & Alexander, 1989).

Wisdom technique may lead to more rapid acquisition and consolidation of conservation by de-embedding thinking from perception and behavior during the practice. Once differentiated, more abstract thinking processes would be available to mediate performance on complex cognitive tasks (Alexander, Kurth, Travis & Alexander, 2005).

The second article, by Tifrah Warner, reports a follow-up study she conducted in 1985 for her Ph.D. dissertation at York University. Warner examined the role of awareness in cognition and the impact of training of awareness in the form of either the TM technique or the Word of Wisdom technique. The main variables were two mental capacities defined in terms of awareness, working memory and attention, and cognitive competence, defined in terms of Piaget's conservation tasks. Regression analyses found awareness capacities to significantly account for cognitive competence. Advanced cognitive performance was found associated with awareness training, and this performance was related to length of practice of the techniques for 4 out of the 7 measures (Warner, 2005).

Two subsequent experiments using these techniques are reported in the third article by Carol Dixon, Michael Dillbeck, Frederick Travis, Horus I Msemaje, Mawiyah Clayborne, Susan Dillbeck and Charles Alexander. A six-month study with 37 experimentals and 29 controls reported increases in principal components of psychological differentiation and general intelligence in experimentals, covarying for pretest and control variables. Secondly, a 45-week study with 25 experimentals and 25 controls found increases in principal components of self-concept, analytical ability, and general intellectual performance among experimental participants. The authors conclude that these techniques appear to accelerate the natural developmental consolidation of awareness at a deeper level—the thinking level versus the perceptual level—and may be important adjuncts to current educational interventions (Dixon, Dillbeck, Travis, Msemaje, Clayborne, Dillbeck & Alexander, 2005).

The fourth article by Howard Chandler, Charles Alexander, and Dennis Heaton directly investigated the prediction that systematic transcending of the thought process through the TM program promotes post-conventional stages of self development in early adulthood. This hypothesis was measured by Loevinger's ego development test, McAdam's measure of intimacy motivation, and Rest's measure of principled moral reasoning. Ten-year longitudinal data indicated that college graduates who practiced the TM technique increased markedly in ego development in contrast to three control groups from other universities matched for gender and age over the same time period ($N = 136$, $p < .00001$). At posttest 38% ($N = 34$) scored at or beyond the Autonomous level versus 1% of controls ($p < .0001$). TM participants also increased to very high

levels of principled moral reasoning ($p = .002$) and intimacy ($p = .02$). (Chandler, Alexander, & Heaton, 2005).

The fifth article offers a brief review of research on the mechanism that mediates the changes reported in articles in this issue—the first-person inner experiences gained through the Transcendental Meditation technique. After reviewing phenomenological and physiological correlates of the deepest state gained during TM practice, the authors, Fred Travis, Kelly Munly, Theresa Olson and John Sorflaten, discuss the significance of these experiences for understanding and defining consciousness. They propose that models from the Vedic tradition, the source of the Transcendental Meditation technique, be used to formulate critical research questions about consciousness that could be empirically tested by “western” scientific research methodologies (Travis, Munly, Olson, & Sorflaten, 2005).

In the final article, following up work done previously, Randi Nidich, Sanford Nidich and Charles Alexander discuss the relationship between Kohlberg's cognitive-moral development theory and the natural law theorists who inspired it, and the Natural Law theory expressed by Maharishi Vedic Science. The authors review neurophysiological research related to experiences of higher states of consciousness and correlations between brainwave coherence and Kohlberg's Stage 7 cosmic perspective stage of moral development. They conclude that as individuals develop higher states of consciousness, they can have direct experience of the higher stages of moral development (Nidich, Nidich, & Alexander, 2005).

In conclusion, the articles in this section extend research begun by Dr. Alexander to understand and explore “the highest forms of human development and the means for their cultivation” (Alexander & Alexander, 2000, p. 191). They support the theory he and his colleagues developed to understand the underlying mechanism of this development.

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