

## THE ANISA MODEL

## A New Vision and a New Way in Early Education

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During the past fifty years a large number of research findings have accumulated in support of the old adage "as the twig is bent, so grows the tree." Consistent with the intuitive judgments of teachers down through the years, these findings indicate that the early years may be even more critical than was formerly realized. Thus, the growing concern for modifying the institutions which have a direct influence on the lives of children is not misplaced. Poor schools and deleterious social conditions have bent millions of "twigs" into stunted trees and have been rightfully blamed for contributing to the impairment of the growth and development of children. The awareness of such conditions became so widespread by the 60's that Congress provided extensive support for many new programs (such as Headstart and Title I of the Elementary and Secondary Education Act of 1965) which promised to counter the destructive effects of educational and social disadvantage.

Successive assessments have shown that the promise is not being fulfilled; the results, for the most part, have proved disappointing.

And yet, in spite of this, many educators are still optimistic that a significant breakthrough in early childhood education is in the offing. The continuing trend of providing greater varieties of educational programs and services for the young is evidence of that optimism. While this is in one sense encouraging, perpetuation of the tendency to implement new programs without regard for careful thinking, long-range planning, and painstaking evaluation is disturbing. Logically, such thinking and planning would draw upon the vast body of research findings concerning the development of children and provision would then be made to apply those findings systematically and to assess their practical utility. But even those who would be inclined to make that use of research findings are frustrated and discouraged from doing so because their fragmentary and sometimes contradictory nature makes translation into practice difficult, impossible, or inconsequential. Thus, after a decade of the most extensive social legislation in our history and the investment of billions of dollars into inadequately conceived and hastily implemented programs for children, we find ourselves at a critical juncture. Either we must find a way of translating what we know into a powerful and comprehensive system of educational practice or face the continuation of insignificant results that inevitably comes from piecemeal, short-term, and therefore necessarily superficial program planning.

Such a translation cannot take place unless we can organize knowledge from experience and research into a useable form and this

cannot take place without the formulation of a coherent body of theory. But theories themselves, if they are not to be trivial or conflicting must have some means of defining their scope and securing their integrity. Huxley referred to this need as a need for a noetic integrator -- "symbolic or conceptual constructions which serve to interpret large fields of reality, to transform experience into attitude and unify factual knowledge and belief." We felt convinced that education would remain ineffective until it finds its noetic integrator. Thus, the Anisa Model was developed. It is the product of an intensive effort to discover such an integrator for the field of education and to articulate the "conceptual constructions" which comprise it so that theory may significantly increase the efficacy of practice.

Anisa, an Arabic word that means "tree of life," symbolically represents never-ending growth and fruition in the context of protection and shelter, and signifies the blending of the usable and fruitful past with a new sense of the future. It thus takes on contemporary significance as the symbol for this effort to provide that noetic integrator, that comprehensive conceptual scheme for organizing the vast amount of information critical to helping teachers work effectively with youngsters. From its beginning nine years ago, the Anisa project<sup>1</sup> has been a multi-disciplinary enterprise. It has culminated

<sup>1</sup> In 1971, The New England Program in Teacher Education (NEPTE), an affiliate of the New England Regional Commission, granted substantial financial assistance to The Center for the Study of Human Potential, School of Education, UMass at Amherst, for the purpose of fully developing the Anisa Model and a teacher preparation program based on it.

in the formulation of a philosophical base, from which was derived a theory of development, a theory of curriculum, and a theory of teaching--all in service of one over-arching goal: the creation of a comprehensive educational system that would be unique in its power to release human potential.

The unifying force of the Anisa theory derives in part from the fact that it extracts and preserves from the past those elements of experience which serve to keep us in touch with reality while creating an awareness of potentialities for development in the future. In other words, it blends knowledge of the past with a vision of the future. To disregard the past would render us impotent to determine where we are going. Rootlessness in the past forces one into a pattern of living entirely in the present, reacting rather than initiating action, always responding on the basis of impulse rather than careful thought. This pattern of living is devoid of a sense of future; it is without long-range goals that provide the perspective needed for wise decision-making. When educators follow this same pattern professionally, they produce a flurry of hastily conceived and crisis-oriented innovations accompanied by an exaggerated emphasis on change for change's sake. One of the inevitable consequences of this approach is a parade of shortlived changes that fragments experience for both teachers and children. Innovations lacking solid roots in the past can hardly serve a vision of the future. They inevitably bring about their own extinction after having consumed

valuable resources. The "do-away-with-tradition" idea of innovation that characterizes many of the new programs in education today are prime examples.

Our approach to change has been to draw from the past what has served man well and to merge it with a new vision that expresses the poetic principle required to fuse tradition with a sense of destiny. To appreciate this approach necessitates a knowledge of how education came to be what it is. Once that has been grasped, one is better equipped to determine what new directions it ought to take.

#### FROM PAST TO PRESENT

The history of psychology, particularly as it emerged from philosophy to set up its own household, sheds an interesting light on the present state of education. When psychology declared its independence from philosophy it borrowed concepts from an existing scientific tradition then dominated by Newtonian physics. Consequently, psychology's view of man was strongly influenced by mechanistic conceptions of reality far in excess of the influences of man's own experience as reflected in his history, his ideals, his art, and his religion. This led to a basic flaw in western psychology, namely, the assumption that one can know the totality of something by examining the pieces or parts that comprise it. The whole of something has a reality that is more than its component parts represent. Thus, this atomistic, mechanistic, view of man misguided psychologists into believing that elementary sensations, reflexes, and conditioned responses are sufficient

to explain the entire nature of man, and that freedom, dignity, sense of purpose, aspiration, will and creativity are mere illusions that have no place in a scientific understanding of man. An application of this belief rests on the assumption that one can understand man by looking at the behavior of lower forms of creation. We see this as a fundamental error, for it ignores those aspects of human functioning that are characteristically unique to man. Educators who would follow this mechanistic line of reasoning and adopt it as a basis for an entire educational system will find it woefully inadequate and ultimately unworkable. Its utility as a comprehensive theory for understanding man is too restricted and fails to integrate all that we know about human beings in a way that would enable us to create an educational system that maximally fosters growth and development. To avoid this, we took pains to develop a philosophical basis for the model broad enough in scope to account for phenomena characteristic of lower-order beings while at the same time dealing with the unique qualities of man, such as consciousness and his capacity to have a sense of purpose and destiny.

#### THE PHILOSOPHY OF ORGANISM

We have drawn heavily on Whitehead's philosophy of organism as the means of rationalizing a new vision that can integrate the incredible amount of child development knowledge in a way that illumines the nature of man and accounts for the phenomenon of purpose and its role in the continual actualization of human potentialities. Without a philosophical base there is no hope of creating an educational system that is consistent, coherent and free of the contradictions that make practice ineffective.

The chief feature which distinguishes man as organism from man as mechanism is creativity guided by purpose and expressed by the two fundamental capacities of man, namely, his ability to know and his ability to love. All potentialities of man are expressions of these two capacities; their actualization represents man's becoming and his essential reality. Since every actualization constitutes a new basis for further expressions of creativity, the creation of further potential is itself one of man's potentialities. The capacity to perpetually move beyond himself is indicative of man's superiority over all other created things. The Anisa educational system, therefore, views man as the apex of creation, capable of endless expression of an unlimited potential.

From this conception of man's nature we derived a definition of good education as the process of translating potentiality into actuality at an optimum rate. One of the primary goals of the Anisa model is to enable each child to become fully conscious of the process and take charge of it, thereby securing the power to shape his own destiny. The capacity for consciousness itself is inherent in the nature of man, but its quality is dependent upon the experience of the organism, the accumulation of its past stored in the form of memory (a form of immanence) and the contrast of that past with the experience of the immediate present in preparation or anticipation of the future (a form of transcendence). These qualities of immanence and transcendence -- prerequisites of consciousness and self-awareness

define man's essential being in spiritual rather than material terms, a central proposition of the philosophical basis of the model. This is not to be construed as a sectarian or denominational definition of man, but rather an acknowledgement of obvious characteristics of human functioning which distinguish man from animal. These characteristics underlie man's ability to determine his own future and make it possible for him to escape the limitations of materiality. In other words, a higher ontological principle is operable in the life of man. It is evidenced by man's ability to structure the unknown and to form ideals which express subjective aim or intention which in turn guides the process of becoming--perpetual self-transcendence. It was that self-transcendence to which Teilhard de Chardin referred when he said that man is like the tip of an ever-ascending arrow, the "last-born, the keenest, the most complex, the most subtle of the successive layers of life." And Huxley reaffirms that view in his statement that man is "the only repository of cosmic self-awareness in the universe" and that makes him managing director of the biggest business of all: evolution.

A teacher who accepts this view of the nature of man will see each child as a creature of unlimited potentiality who can never be classified as uneducable. The very atmosphere of an educational system staffed by teachers who consciously affirm the spiritual nature of man is much more likely to release the potentialities of its students than one whose staff denies this fundamental characteristic. Understanding how the actualization of any potentiality creates further

potential alters perception and feeling about children and enables one to approach teaching differently. The Anisa Model defines those experiences which teachers may use to actualize given potentialities of their students in ways that continually and actively create further potential while at the same time providing a conceptual means for identifying suppressive experience that should be avoided.

A THEORY OF DEVELOPMENT: DEFINING THE PROCESS OF BECOMING

The process of becoming has basically three interrelated characteristics: growth, development, and maturation. Within the discipline of child development, the term growth usually refers to a biological increase in the size of the organism; development means an increase in the complexity of its organization both physiologically and psychologically; and, maturation refers to a genetically determined timetable that influences the extent to which and the rate at which other developmental potentialities become actualized through interaction with the environment. Developmental processes are inextricably bound up with growth and maturational processes; all take place as the organism interacts with its environment. Thus, we have incorporated growth and maturation within our theory of development. The theory broadly defines development as the process of translating potentiality (biological and psychological) into actuality; makes that process synonymous with creativity as the fundamental and inherent dynamic characteristic of the organism; establishes interaction with the environment as the general means by which the process is sustained; provides for a definition and

classification of potentialities and environments; explains the nature of essential interactions underlying the release of both biological and psychological potentialities; identifies nutrition as the primary element in the development of the former and learning as the key factor in the development of the latter; and, accounts for the emergence of personal identity -- the self - in terms of the structuring of potentialities as they are actualized.

The theory also emphasizes the importance of timing in the process of becoming. It has an order, a rhythm. Certain needs arise at particular times. If the needs are not met at these times, developmental impairment may result.<sup>1</sup> Such times are known as sensitive or critical periods. It is well established that such periods exist in the physical development of the human organism. During embryo-genesis, organs or tissues which enter a period of rapid growth tend to be more sensitive to positive or negative influences whereas either before or after that period there may be little effect. The deleterious effects of rubella during the first three months of pregnancy, the damaging consequences of taking certain drugs such as thalidomide during pregnancy, the impairment of vision due to absence of sufficient light stimulation to the retina during the first few months of life, and the retardation of language acquisition if no linguistic models are provided

<sup>1</sup> Diagnosing needs and/or developmental levels is prerequisite to individualizing instruction and without individualizing learning experiences there can be no equalization of educational opportunity.

between 8 months and 2 years are all evidences of the existence of critical or sensitive periods. Thus timing in the organism's interaction with its environment is an important factor in the actualization of both biological and psychological potentialities.

#### NUTRITION AND THE ACTUALIZATION OF BIOLOGICAL POTENTIALITIES

One basic form of interaction is the assimilation of nutrients from the external environment. From these nutrients come the materials for building and maintaining the tissues of the body and the energy to sustain their functioning. Poor nutrition means a deficient body and inadequate functioning; it is a suppressor of potential.

The Anisa Model therefore has a strong emphasis on proper nutrition and good health. It makes a provision for intervening in the anticipated life of a child a year or so before his conception by insuring that the nutritional status of the mother and father is maximally improved in preparation for his genesis. Since the provision of adequate nutrition remains important throughout life, the model provides for collaborative efforts among community, school, and home to maintain an optimum nutritional status in all students and staff. There are countless examples that demonstrate the necessity for a strong nutritional component in any comprehensive educational model: the effects of thiamine deficiency and its relationship to anxiety, irritability, depression, and increased sensitivity to noise and pain; the effects of nicotinic acid deficiency and its relationship to lassitude, apprehension, and depression; Vitamin B-12 deficiency which can

cause mental confusion; a lack of iodine which may lower the metabolic rate and cause physical or mental languor; and, insufficient iron which tends to result in lowered hemoglobin which reduces the capacity for the blood to carry oxygen, thereby lessening motor activity. The above in no way exhausts all the ramifications of proper nutrition and its relationship to the development of the human organism, but merely highlights the need to provide adequate nutrition throughout life. The implications for education are fairly obvious. Not only is proper nutrition essential for maintaining the biological integrity of the organism, but it is also indispensable for the release of psychological potentialities since that integrity is a necessary, though not sufficient, condition for their expression.

#### LEARNING AND THE ACTUALIZATION OF PSYCHOLOGICAL POTENTIALITIES

The role of educational institutions is to provide a means for the continuous engagement of students in the process of actualizing potential and to enable them to gain conscious control over it. The key factor in the process is learning; being in charge of the process by knowing how to learn is what is meant by learning competence. The Anisa Model thus defines the role of the teacher as a facilitator of the attainment of learning competence rather than as a disseminator of information only. Failure to attain learning competence makes the child more a victim of his environment rather than a master over it -- a prey to the manipulative elements of society and certainly someone who is not in charge of his own destiny nor attracted by the mystery of his own becoming. Any successful educational system of the future

must redress those forces which destroy the attraction of that mystery--the limitless potentialities of knowing and loving. This necessarily involves helping students to develop an inner acceptance of responsibility for developing their own infinitude of potentialities through the acknowledgement and cultivation of a sense of purpose as it relates to aspirations and ideals.

Thus, the quality of any educational system of the future will be determined by the extent to which it can help youngsters translate potentiality into actuality--a process Alfred North Whitehead describes by the term "concrecence" (1929). Concrecence not only includes everything normally conveyed by the word development but goes beyond it to encompass man's unique ability to go beyond himself--the ability to accumulate the past, bring it to bear on the present while structuring the future, thereby moving perpetually beyond any present state of being. Learning is the means of that "moving beyond" which Whitehead calls the "creative advance into novelty." Such a creative advance means transcending apparent limitations. We have many examples of man's ability to go beyond such limitations through learning. Using instruments invented by man we can see beyond the capability of the naked eye, hear beyond the limitations of the ear, and can experience phenomena for which we have no sense receptors (i.e., radio waves) and which would remain inaccessible to the organism if it were left to function alone. Therefore, this broadly conceived notion of learning which fuses immanence with transcendence in a conscious pursuit of

destiny accounts for the means by which man is able to leap over his material and biological limitations and move beyond them. Such a notion is completely incompatible with any idea of fixed intelligence and in fact predicts the eventual formulation of a new definition of intelligence that will be far more comprehensive than the one reflected in traditional IQ tests, and one which is more congruent with our definition of learning competence.

Without learning competence there is little likelihood of attaining high levels of self-actualization. Thus, to be effective, any institution which has educational responsibility will have to maintain a staff which understands the nature of learning competence and how it can be achieved. The function of the theory of development is to explain learning competence and the means of attaining it.

A clear understanding of the nature of learning competence as it relates to the total body of theory underlying the Anisa Model is important because it can dramatically increase the teacher's power to facilitate the release of potential by providing guidelines for gearing learning activities to the child's developmental level. It also enables the teacher to take what is useful from any given theory, integrate that with pertinent aspects of other theories and apply them in teaching. This may help to avoid subjecting youngsters to the inherent weaknesses that any single non-comprehensive theory may possess.

For example, stimulus-response theory defines learning primarily as a modification of behavior, views the individual as relatively passive

in the selection and regulation of mental processes, focuses on stimulus inputs, behavioral responses and reinforcement, ignores the importance of internal states of the organism and defines motivation as being dependent upon extrinsic factors alone. Yet reinforcement must take its definition from the internal nature of the organism, not the least of which are the intentions and purposes it may have at any given point in time. Because it ignores what goes on inside the organism, it is severely limited in explanatory power. This is not to say that stimulus-response theory has no useful applicability to certain educational situations; rather, it is ill-suited to stand alone as a comprehensive theory of development for educational practice. We feel that process theories such as those developed by Piaget and Bruner are as a whole more congruent with the philosophy of organism. Process-oriented theories view the individual as active in the selection and regulation of his mental processes, deals with inferred mediational processes, includes in the definition of learning the mastery of certain central processes termed operations or strategies, and emphasizes the role of intrinsic motivation including pre-dispositions toward resolving incongruities (Levitt, 1968).

While we acknowledge that drive reduction and extraneous stimuli can motivate an individual, the most powerful form of motivation is an intrinsic force which comes from a subjective confirmation that competence is being gained. Robert White (1960) calls this sense of competence "effectance."

My proposal is that activity, manipulation, and exploration

which are all pretty much of a piece in the infant, be considered together as aspects of competence, and that for the present we assume the one general motivational principle lies behind them. The word I have suggested for this motive is effectance because its most characteristic feature is seen in the production of effects of the environment. At first, these effects may consist of any changes in sensory input that follow upon activity or exertion, but before long the child becomes able to intend particular changes and to be content only with these.

White describes effectance as a neurogenic motive to distinguish it from viscerogenic motives upon which drive reduction theories of learning have been predicated. There is no doubt that viscerogenic motives, such as thirst, hunger or sex do exist. But White hastens to point out that they do not account for everything we do (as Freud has proposed in his theory of libido). We feel that effectance, which cannot be solely understood in terms of sensations, reflexes, and physiology, is neither a neurogenic or viscerogenic motive, but a psychogenic motive which arises out of the structure of consciousness and although it may depend upon nerves and physiology for its functioning, it cannot be wholly explained by them. Thus, effectance is expressed in the attainment in a variety of competencies which collectively define learning competence. As each of the competencies are strengthened, the organism becomes more effective in dealing with the environment and pursuing his own destiny.

Our procedure for developing the definition of learning competence was to review the major theories of learning and development in the hope of discovering a common denominator which could be reasonably expected to figure prominently in such a definition.<sup>1</sup> We found that the processes

<sup>1</sup> Gagne's Eight Types of Learning, Walter's brain wave theory, Tolman's sign learning, Lewins' field theory, Snugg and Combs' perception theory,