

THE PROCESS CURRICULUM

Affective Competence
A General Introduction

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INTRODUCTION: THE NATURE AND SIGNIFICANCE OF AFFECTIVE COMPETENCE

Less than ten years after Sputnik and the subsequent flurry of "beefing up" our educational systems with a proliferation of math, science, and foreign language curricula, a chorus of voices arose to plead for a balance. Many were concerned that we, as human beings, were being over-developed cognitively and under-developed affectively. Kelley (1965, p. 455) says:

. . . how a person feels is more important than what he knows. This seems true because how one feels controls behavior, while what one knows does not. What one knows is used in behavior. . . but the way it is used depends upon positive or negative feelings. It is possible to be a saint or a demon with similar knowledge.

While the ANISA Model does not necessarily agree that how we feel is more important than what we know, it does hold that to be healthy, cognition, or thinking, and affect, or emotion, must be integrated in certain ways; one must not be de-emphasized at the expense of the other.

That we have for so long promulgated the idea of making a living rather than making a life is manifested in the suppression of the psychological potential of hundreds of thousands of children yearly.

Another voice reflects the mounting concern over neglect for the education and refinement of emotions:

It is probably no coincidence that where schools are found in which the education of emotions is ignored, so also will be found adults whose emotions are undisciplined—that is, either suppressed or uncontrolled. Hence our scholars and researchers, our white-collar and our blue-collar workers pursue their labours humorously and without passion; and when their work is over, they are often found in thoughtless pursuit of infantile pleasures. Yet this way of life—an endless alteration between emotional suspension and emotional regression is no more than the natural consequence of supposing that rational thought needs to be taught and that an education of the emotions can safely be ignored. (Arnstine, 1964, 242-43)

According to the ANISA Model, affective competence depends on the organization of emotions and feelings in conjunction with all other categories of potentiality: psychomotor, perceptual, cognitive, and volitional. Teachers are, therefore, called upon to arrange environments and to guide children's interactions in those environments in ways that assist them to become affectively competent. This approach emphasizes how to feel as opposed to what to feel and implicates the moral domain as Godwin attests (1967, p. 361):

. . . to be virtuous is to feel the right emotions.
The right emotions are those that men feel when they see the facts clearly. When we analyse these emotions, we find that they are all consistent with the greatest happiness principle.

Godwin's greatest happiness principle corresponds to Whitehead's concept of constantly increasing the quality of survival for humankind. Paucity of emotion leads us to neither happiness nor survival. Lifton (1967, p. 3) feels that we have entered the "age of numbing". He thinks it is fast enveloping the planet, especially where human beings have witnessed the ruthless destruction of human life. He laments:

It (psychic numbing) is another form of impairment of the symbolizing process . . . which ordinarily harmonizes cognitive and emotional elements—what one knows and what one feels. Thus we can now speak of knowledge without feeling. We can also speak of a profound symbolic gap characteristic of our age, a gap between the capacity for technological violence on the one hand, and our much more limited capacity for moral imagination on the other.

Evidently, the universal symbols which meant the preservation of life for all humanity have ceased to hold that significance. And when common symbols no longer exist, there is no point around which to rally moral forces. Technological competence on the one hand and moral incompetence on the other are expressions of the "symbol" gap which Lifton mentions.

Teachers are in a unique position to begin to redress this imbalance in the way they arrange environments and interact with children. The ANISA Model provides guidelines for helping children to feel right about what is good for themselves and their fellow human beings, helping them to avoid learning disabilities due to the negative emotions children have directed toward themselves, and helping them to avoid emotional breakdown. These are all areas of preventive intervention implied in any effort to facilitate the development of affective competence. Brandwein (1969, p. 131) summarizes the point:

To what end do we educate? Surely this: Compassion and Competence The educated person has feeling as well as skill. This is not to derogate competence. Too often, we assume that other goals must negate competence in mathematics, or linguistics, or science, or art. Competence in these and in other arenas of human knowledge is good; but it is not sufficient of itself. The educated person understands the humanness of human beings. He does not allow technical skill to destroy compassion, neither does he equate rule and law with the toleration of man's inhumanity to man. Justice is tempered with mercy—and compassion compels justice.

Whitehead's view (1954) that ninety per cent of our lives is governed by emotion supports Brandwien's thesis and highlights the importance of including affective development as a legitimate objective of education. His point raises at least two important questions for educators: (1) In what ways is emotional or affective development dependent on learning; and (2) how can teachers facilitate affective development in the direction of maximum richness and dynamic stability? Answers to these questions would be of great assistance to parents and educators who intuitively feel that study of emotional development deserves a more significant place in parent-teacher preparation programs than it is currently being given. If so much of our lives is governed by emotion, it doesn't make any sense to leave the development of the emotional life of children up to chance.

Even though interest in affective development has inspired the production of a vast literature, extensive conceptual ambiguities remain. Chief among these ambiguities are the vague, unclear, and conflicting definitions of emotions and feelings. Since investigators failed to dispel the confusion surrounding the terminology associated with emotion, the first task we faced was to use the ANISA theory of development as a common frame of reference in the analysis and synthesis of ideas presented in a large number of articles and books on affective development and emotion. Since the Model is comprehensive and coherent, it provides an efficient means of assessing and organizing the extensive literature on emotion and related topics.

The purpose of this paper is to set forth, in a tentative fashion, a conceptual organization of the affective domain, to specify the key processes underlying the development of affective competence in children, and to show how these processes form the basis of the ANISA affective curriculum.

To understand the multi-faceted nature of emotion requires an

examination of a number of orientations: philosophical, psychological, physiological, aesthetic and ethical. Part I of this paper presents such an examination. In Part II, affective processes are identified and defined. The section explains in what ways affective development depends on learning. Part III cites ways teachers can design learning experiences which promote the development of affective competence.

PART I

DEFINITION

Affective competence is the consciousness to differentiate affective states which reflect varying degrees of viability of the organism, to integrate them appropriately so that they accurately inform the organism of its condition of viability, and to generalize the integration to anticipated experiences and the experiences of others. Affective competence involves the differentiation of emotions and feelings, their integration in reference to memories, objects, events, people, or ideals, and their generalization in ways that provide a basic stability in life. When a human being organizes his feelings and emotions so that his life is governed in ways which constantly increase the quality of survival for himself and others, we may conclude that he is affectively competent.

DESCRIPTION

Emotions are non-verbal states of consciousness the purpose of which is to inform the organism of its condition of viability. Built into each one of us is an internal cybernetic (feedback) system through which information about how the organism is expending energy is represented in consciousness in the form of feelings or emotions. Each living human being is an energy system. Its viability as a system (organism) depends on how it uses energy available to it both in the maintenance of internal operations and in its interaction with the external environment. Emotional experience itself is a form of energy utilization or expression (i.e., it takes calories of energy to feel frightened or ecstatic) and we can have an emotional reaction to present emotional states that we may at any moment be experiencing, which immediately alters the state of consciousness, i.e., changes the emotional tone of the moment. Through experience and "emotional memory" (a kind of affective immanence), we learn that certain patterns in the utilization of energy means we are in trouble—the conditions of viability have become unfavorable or seriously threatening. We thus feel anxious, afraid, distressed, horrified, uneasy, nervous, jumpy, or "on edge". These can be called the "fear related" emotions.

Other uses of energy may lead to emotional reactions which tell us that there is not only no threat to our viability but that conditions are most favorable; we call these emotions or states of consciousness joy, ecstasy, happiness, inner calmness, pleasure, contentment. These may be called the "hope-related" emotions. We are genetically endowed with the capacity for pain and pleasure; pain usually signals a threat to viability, and pleasure a guarantee of viability. The fear-related emotions arise out of painful experience and the hope-related emotions from pleasureable experience. It is the function of education to make certain that the emotions are organized in relation to pain and pleasure so that viability is guaranteed. In many instances, bearing temporary pain is essential to survival and hope emotions must be related to the pain (i.e., having necessary surgery, removing a splinter, having an infected tooth pulled).

Because psychomotor activity, perception, cognition, and volition are expressions of energy use, they always have an emotional counterpart. In other words, energy used in perception or cognition, etc., is always accompanied by an appraisal of viability (subjectively experienced as emotions of various kinds) which in large measure derives from the organism's past associations of those patterns of energy utilization with particular interactions with the environment, the consequences of which either threatened (produced fear), safeguarded (produced hope), or had no effect on the organism's viability (produced neither hope nor fear).

The primary sources of antecedents of emotion are, therefore, other patterns of energy use; their secondary sources may be external to the organism, i.e., events which stimulated the particular use of energy in the first place. For example, during the experience of nearly drowning, the energy use of the victim in forms of psychomotor, perceptual, cognitive, and volitional activity will have an affective counterpart. When the arms and legs are moved in a random fashion, sinking occurs, breathing is impaired, and fear-related emotions indicate that survival is threatened (viability is reduced). When the arms and legs are coordinated in a certain way, floating occurs, breathing is possible, and hope-related emotions indicate that viability is increased (Example from Mowrer, O. H. Two-Factor Learning Theory). This appraisal usually leads the subject to differentiate between the flailing and splashing movements which lead to sinking, and the coordinated movements which keep the organism afloat. Having made the differentiation, he will usually give up the former and keep on with the latter. Such an experience of nearly drowning will be remembered and will probably predispose the subject to view even water in a swimming pool as potentially threatening to his survival. On subsequent occasions he may avoid ever getting into deep water. While this would afford a measure of protection, it is not the best way to insure viability. The best way is to learn how to swim.

Applying the ANISA theory of pedagogy would dictate arranging the

environment carefully (i.e., water, water wings, right depth of the water, etc.) and guiding the subject's interaction with the environment so that the hope-related emotion can be fully integrated with the patterns of moving arms and legs that guarantee floating. The perceptions of the water and the movement of arms in the water are patterns of energy utilization which the emotions "report" on; they are the primary sources or antecedents of the emotional reaction. Their secondary source is the water (which stimulated particular perceptions and movements in the first place). The assessment of viability of the subject as it interacted with the water included a review of remembered past experience (immanence) with water. Assessment of viability in any situation always includes a "review" of all related past experiences; this is one of the most direct and obvious means by which we are able to learn from past experience. Without such capacity, survival would be jeopardized at every turn.

The preceding ideas concerning the nature of emotion are amplified in the context of philosophical, psychological, physiological, aesthetic and ethical perspectives discussed in the following pages.

Philosophical Perspectives

Because philosophical explanations attempt to disclose the nature of reality, a study of how philosophers have dealt with emotion is bound to yield insights about what it is, its purpose, and its relation to everything else.

Pre-Socratic philosophers generally dealt with the psyche in terms of two dimensions: (1) the reason, and (2) the passions. Reason was always regarded as the rational aspect of the psyche, the passions as the irrational. Zeno, for example, believed that by an error a perversion was produced which operated on the mind and caused perturbations to arise that inclined the mind toward irrationality. The passions or perversions of the mind were classified into four basic categories: grief, fear, desire and pleasure. Each category was further sub-divided to expose other irrational elements. However, Zeno finally conceded three good dispositions of the mind to be joy, caution, and will.

The most interesting point of Zeno's contribution is that "passions" and "good dispositions" evolve from the same source, the mind. One senses that Zeno, like his successors, struggled with the relationship between the human capacities for knowing and loving.

Later, Aristotle, further developing the views of Socrates and Plato, organized the first rationalistic philosophy which proposed that man is basically a knowing and rational being, but to remain so, must suppress his baser, emotional elements which tended to distort reason. In short, uncontrolled emotions could cause irrational acts. Controlled emotions,

however, had survival benefits if they energized the body for fight or flight.

Rationalist philosophy found its extreme expression in the work of Rene Descartes during the seventeenth century when advances in scientific knowledge used two functions of the intellect. The first emphasized deductive, analytical and mathematical reasoning; the second, empirical and inductive reasoning. Exponents of the first approach include Descartes, Hobbes, and Spinoza; the second, Francis Bacon and John Locke. Both schools of thought share two important features—a doubt in the validity or completeness of existing knowledge and a belief that the world is governed by a rational order that is susceptible to discovery, either by deductive reasoning or by painstaking observation. Science in the modern sense developed from the integration of these two approaches. The process of experimental verification of hypotheses leads to new factual knowledge not included in the original theory. This usually necessitates the modification of the original theory, the generation of new hypotheses, trying new experiments, and making new discoveries in a never-ending, cyclic advance into unknowns.

Descartes' conception of emotion was based on intuitive abstractions which had little basis in physiological or psychological reality. He equipped man with a thinking substance, the soul, which he claimed did not interact with the body. He thus completely separated body and mind, and created a dualism that still haunts the study of man. Descartes writes that "the principle effect of all the passions in man is that they incite and dispose the mind to will the things" that the body is to do; thus, "the sentiment of fear incites it to will to fly; that of courage, to will to fight. . ." (Sahakian, 1968, p. 26-27).

Thus Descartes distinguishes between passions (in the soul), bodily commotion (in the viscera), and action (overt movement). The actual course taken by the emotions begins with an object in the environment which, via the sense organs and nerves creates an impression on the pineal gland, a small organ located in the center of the brain (See figure 1). (Descartes had no physiological evidence for this, and to this day the functions of the pineal gland are not well understood.). This impression causes the soul to apprehend the object and also causes the "animal spirits" in the brain and nerves to become active. These spirits act on the pineal gland to convert latent feelings into passions or emotion. Emotion intervenes between stimulus and response and arouses the volitional dispositions of the body, thus serving some useful purpose.

Following the deductive tradition, Spinoza developed a more sophisticated view of emotional phenomena. He began by positing a concept of power. To be able to exist is a form of being positively able to do something (a state of being in potential). Power, then, is at the heart

of his theory of affects. The changes in affective states of an organism are defined as transitions in its power relations. These transitions, which consist of increases or decreases in the power of the organism, underlie positive and negative sentiments, and the desires which originate in these sentiments. When there is increase in (general) power, there is active emotion.

An emotion may be strong or weak, persistent or short-lived. As the increase in power can come about only by means of an active emotion, we can presume that the increase is in proportion to the collective effect of intensity, depth, and duration of such an emotion. Thus, the more intense, the deeper, and more durable an active emotion, the greater the reservoir of power available to consolidate the being-in-oneself (the tendency to withstand threat's to one's existence) and to continue striving toward greater perfection.

Spinoza equates levels of power with levels of perfection and suggests that the mind undergoes considerable changes as it moves to higher or lower states of perfection, increasing or decreasing in power in the process. The changes reveal the nature of basic affects.

Joy is an affect of the human organism such that power is increased in some or all of its relations. Joy, however, is not an unqualified positive affect; there can be too much of it, namely, when it is not representing an increase in power in all relations. Thus, joy (laetitia) is of two kinds. The uniformly homogeneous joy affecting all parts of mind and body, Spinoza calls hilaritas which best translates as cheerfulness. According to Spinoza, there cannot be too much of this kind of joy. Cheerfulness increases one's level of activity and to a degree causes one's own reactions and states of mind. On the other hand tibillatio, pleasurable sensation, represents an increase in power, but not uniformly. Therefore, it may mean that it concerns some, but not all, of one's relations to oneself, to others, and to nature at large. The increase in one's own striving and joy is related to the increase of other's striving and joy.

Alexander and Selesnick (1966, p. 99) comment upon Spinoza's analysis of emotional qualities and his subsequent influence on psychiatric thought:

Spinoza called the mixture of two opposite emotions vacillation of the soul; it bears the same relation to emotions as doubt does to ideas. Since for Spinoza emotions and ideas are intimately connected, doubt and vacillation of the soul differ from each other only quantitatively. Equally penetrating is his analysis of hope and pity. Hope is certain pleasure derived from the idea of a past or future event, about the outcome of which we are in doubt. Fear also results from the

idea of something uncertain. When the doubt is lifted, hope changes into confidence and fear into despair . . . Joy is a kind of pleasure which is derived from something about the outcome of which we were doubtful in the past Pity is displeasure which the suffering of another person arouses in us who we feel is similar to us.

This kind of pity through identification is one form of empathy. What we now refer to as overcompensation and reaction formation was based on the idea that one emotion can be counterbalanced or eliminated only by another opposite and stronger emotion.

Some two hundred years later Bleuler called the Spinozan "vacillation of the soul", ambivalence: "If we think of one thing which usually is connected with displeasure, but reminds us of something which used to give us an equal amount of pleasure, we hate and love it at the same time" (Alexander and Selesnick, 1966, p. 99).

Spinoza's logical cohesiveness and exceptionally complete descriptions of psychological phenomena was a precursor to a more inclusive organismic point of view, especially that which culminates in the philosophical thought of Alfred North Whitehead.

Organismic philosophy as Whitehead presents it accommodates and reconciles polemics dating from pre-Socratic times to the present, and takes into account all aspects of inquiry into the subject. Because it is comprehensive, an organismic view of man furnishes a more adequate guide for the organization of the affective domain. In contradistinction to a mechanistic view, it explicitly accepts final cause as a determinant of being—an influence on the process of becoming, i.e., ideals toward which development proceeds. The organismic view holds that:

1. Man is a conscious and therefore a purposeful being, endowed with infinite potential.
2. Man is proactive, striving to achieve optimal "effectance" in dealing with his environment (for further explanation see White, 1963, pp. 185-86).
3. Man can transcend the molding influence of his sociocultural environment and is, therefore, capable of self-transformation.
4. Man can aspire to ideals, formulate goals consistent with them, pursue and attain the goals, and formulate new ones.
5. Man seeks heterostasis as well as homeostasis in order to make

"creative advances into novelty", (i.e., novel stimuli are sought after; curiosity is an inherent characteristic of man; boredom is not tolerable for long).

Couched in Whiteheadian phraseology, the above view is summarized. We can think of the universe as comprised of individual centers of feeling (actual entities) in self-creative interaction, accepting (positive prehension) or rejecting (negative prehension) available data. This process is guided by purpose (subjective aim). There is a continuity of development from past to present tending toward the future. Unrealized possibilities (eternal objects), i.e., pure potentialities, as well as actualities (actual entities) are realities of the universe. When a human being (actual entity) adopts (prehends) a self-ideal (eternal object or potential self), he takes as one of his purposes in life (subjective aim) the actualization of potentiality (process of becoming) in a certain direction. A primary source of data for the self-ideal of a child is other people and the way they interact with him and help to organize the hope-related emotions around the ideal. Therefore, human social behavior is to be understood not only in terms of the reports of sense perception but more ultimately in terms of emotions organized to support purpose as ideal (subjective aim).

For Whitehead the basis of experience is emotional, broadly defined (1967, p. 176). "Affective tone, itself, arises from a sense of importance", which "reveals itself as transitions of emotion. My importance is my emotional worth now" (Whitehead, 1968, p. 117). Following this perspective, Whitehead (1969, p. 45) posits a claim that "retreat from an expansion towards", what modern theorists often refer to as differentiating processes of withdrawal-approach or adience-abience, are "primitive modes of functioning" and when one performs in this way, he is "merely reacting to the way externality is impressing on us its own character". An excellent point for all of us to remember, especially therapists, is his thesis that "you cannot retreat from mere subjectivity, for subjectivity is what we carry with us!"

The above elucidations in no way complete Whitehead's elaboration on the nature and purpose of emotion. We will return in subsequent sections of the paper to his philosophical synthesis.

Scheler's (Frings, 1965) philosophical thought about the nature of emotions enriches our understanding. He analyzes a number of feeling-states which are different in depth and intensity. The word "feeling" in German can refer to a state of feeling, for instance, that of illness, health, weakness; and it can refer to a feeling about this state, i.e., to feel a feeling, so that "to feel" is intentional to such a feeling-state. Pain, as a "state" of feeling, can be endured, suffered, psychically suppressed, or even enjoyed. Pain, as a state, can be felt, as

these examples show, in different ways. It follows from these distinctions that feeling-states refer to a content and feelings to the emotional reaction to the content.

Happiness, blissfulness, cheerfulness, comfort or pleasure and their opposites (misery, despair, sadness, pain) are clearly different individual states, for a human being can still be happy in the process of suffering pain. Feeling-states and feelings participate in a fundamental stratification of emotional depths. Scheler distinguishes four different strata of feeling-states which correspond to the whole structure of human existence:

1. Physical feeling-states (e.g., pain, sensation of tickling, itching, etc.).
2. Body or vital feeling-states (e.g., weakness, anxiety, illness, health, etc.).
3. Psychic feeling-states (e.g., sorrow, joy, sadness, etc.).
4. Spiritual feeling-states (e.g., blissfulness, despair, pangs of consciousness, etc.).

Physical feeling-states are fundamentally different from the other three feeling-states in that they are local and extended, on or in a body. They are subject to willful removal, guidance, and arbitrary change.

Vital feeling-states of weakness, strength, illness, or one of growing or declining life (feeling-states of youth or age) cannot be willfully mastered or willfully produced in the same way as physical feeling-states. All feeling-states are indications of values (positive) and disvalues (negative). Besides these indications of values and disvalues, vital, psychic, and spiritual feeling-states are also prognostications, warnings, or summons for the execution of reactions to avert forthcoming dangers. The value content of a vital feeling-state is present before any damages or advantages in a living being occur.

Psychic feeling-states are related to objects in the environment including other persons, and can be shared. Thus they differ from the other feeling-states which are only within the subject itself. The feeling-state here is intentional and can be re-felt in the form of sympathy. Psychic feeling-states can hardly be changed through changing body conditions because they are closely attached to imagined objects which are mostly independent of the body and its conditions.

Spiritual feeling-states pour forth directly from the core of the person (e.g., the feeling-state of pangs of conscience) and shine through

the person and his life. According to Scheler, to have or not to have spiritual feeling-states is not dependent on willful intentions at all.

Scheler's hierarchy attempts to categorize a range of feeling-states which emphasizes the role of environment, interaction, and evaluation.

The foregoing discussion shows how affective consciousness is highly differentiated and appears in a number of distinctive forms. It is by no means tightly organized and organically coherent. For example, fear does not depend upon anger, or love upon fear. The relation here is one of independence. Happiness, however, cannot occur with sadness. Here the relationship is antithetical, not independent or complementary. Certain forms of affective consciousness are highly intellectual in their content as we shall discuss under aesthetic and ethical considerations.

The development of affective consciousness, like cognitive development, is subject to the same laws of learning (differentiation, integration, and generalization) and may be enriched by the accumulation of past experiences ranging from primitive responses of a child when he is angry to that of an adult capable of showing anger at injustice. The next section sets forth a number of psychological perspectives regarding the development of affective competence.

Psychological Perspectives

The purpose of this portion of the paper is to document a number of concepts which support the ANISA theory of affective competence. The concepts included are "energy as a source or background of emotion", the "purpose of emotion in the human organism", and "affective conditioning". (Neither space nor time is adequate for a full elaboration of these concepts. Please note the bibliography for further references.).

This documentation draws heavily on the biological and behavioral sciences, and within that range examines the works of learning theorists, medical researchers, psychologists, therapists, and clinicians.

Energy as the Source or Background of Emotion.

In formulating his interacting-pattern theory of the affectivities or emotions, Cason (1933, p. 283) called specific attention to the role of consciousness and learning processes in affective development. His theory acknowledges a multitude of processes, cutting across every domain possible, defining terms and indicating relationships.

. . . feelings and emotions are organic patterns of interacting activities which simultaneously involve many different kinds of processes although the different processes may not be involved to the same degree. In addition to conscious experiences and associated language habits, the affectivities always simultaneously involve processes that are physical, chemical, neurological, endocrinological, visceral, sensory, muscular, conscious, unconscious, etc.; and the causal factors operate in both directions between each activity and practically all of the other activities involved in the total organic pattern. The sensory processes, for example, influence the nervous processes and the nervous processes influence the sensory . . .

The value of the interacting-pattern theory lies in its comprehensiveness. It takes account of the interrelationships among the various fields of inquiry which offer some contribution to the organization of the affective domain. Furthermore, this theory explains individual differences in affectivity. It concedes that although each person has many different affective experiences, some feelings and emotions do not occur in everyone. There are individuals who have never experienced a persistent feeling of anxiety and others who do not understand the meanings that the words despair and passion are intended to convey. The affective differences between different people and in the same person at different times are due to differences in the organic pattern of interacting activities. The interacting-pattern theory is congruent with the ANISA theory of development in that it identifies interaction as the means by which development is sustained.

Another paper which supports the ANISA position is one by McKinney (1930, pp. 54-57) in which he uses the term energy as a referent to emotion. "Man", he says, "might be conceived of as an energy system or field of force attempting to maintain itself and its relations with the universal continuum". In promulgating this view he endows the terminology associated with physics with new meaning. Energy in physics is defined as a force which can be exerted in a variety of ways and appears in different forms (mechanical, heat, light, gravitational, electrical, chemical, etc.). Dynamic qualities of the external world, such as mass, energy, stress, electrical potential, and tension may very well be applied to the internal world of man. McKinney reasons that the concept of energy represents a point of unity between psychology and physics and among a number of theories about emotion. This idea gains credence in light of the trend of scientific thought toward the integration of disciplines. Einstein's work represents the most outstanding example of this trend in modern scientific thought. He bridged the gap between two conceptions (electromagnetic and

gravitational fields) by showing a sameness in underlying principles which unites them.

The use of the concept of energy in thinking about emotion is ancient, dating from the Greeks to the present. Duffy (1951) proposed that the concept of energy mobilization and direction be a major object of psychological study. The term energy mobilization, as Duffy (1951, p. 32) explains it, refers to the release of potential energy, stored in the tissues of the organism, for use in activity or response. This energy may be used for either covert or overt activity. It is the energy used in attending and thinking as well as in locomotion and manipulation.

Duffy goes on to list four propositions which can be fully supported empirically:

1. Every activity, overt or covert, in which the individual engages requires the release of energy.

This is consistent with the ANISA view that actualized psychological potentialities are patterned uses of energy appearing in different forms (psychomotor, perceptual, cognitive, affective, and volitional).

2. The extent of the energy release is determined by the degree of effort required by the situation as interpreted by the individual. For example, difficult tasks require more energy than easy tasks; situations which the individual regards as significant in relation to his goals release more energy than those interpreted as lacking this significance.

This proposition supports the ANISA idea that assessment of the arousal state (energy available to the organism) is an essential part of the information needed by the organism to assess its condition of viability.

3. The extent of energy release is determined also by physiological factors, such as endocrine secretions, food, and drugs.

We agree that the biological integrity of the organism determines to a significant degree the quality of its performance and, therefore, the energy required to secure that integrity is crucial.

4. The extent of energy release varies with the type of situation and with the individual.

We agree also that variation in the kinds of interaction with different environments determines the quantity and quality of energy released.

Activation-arousal theories of emotion (Plutchik, 1962; Young, 1961;

Arnold, 1970; Berlyne, 1961; de Charms, 1968; and others) build on the concept of energy utilization. Strecker and Appel (1960, p. 103) summarize the role of energy in human development:

Emotions and feelings supply the energy which makes the mind work. Without emotional energy man, although he could live, would be inert, existing in a vegetative state. . . . it is emotional energy which enables man to get out of bed in the morning, to dress himself, to go to work, to play, to make love, to care for his children, to build bridges or paint pictures!! Without emotion he would do none of these things, but repose, a breathing lump of clay. . . . the biologic purpose of emotion in the human organism is to supply energy in order for it to survive.

The Purpose of Emotion

After a multidisciplinary study, Jacobsen (1967, p. 125) concluded that:

Emotion is the framework in which man apprehends reality. It is evaluation of the situation with which he is confronted. To adapt and thrive in any set of external conditions, every organism is obliged to evaluate them with respect to its own welfare.

Jacobsen's studies justify regarding emotions as internal signals which report on the conditions to be met if the welfare of the organism is to be safeguarded.

In emotional states, the individual is moved to take cognizance, evaluate and respond to some event, circumstance or condition, real or imagined. Often this is a form of welfare response in which all systems in man take part. The cerebrospinal and striated neuromuscular systems show active pattern insofar as there occurs perception, intellectual evaluation and motor response; in short, there is purposeful effort. The vegetative nervous system, endocrine system and visceral systems, including smooth and cardiac neuromusculature, show coordinate responses intricately interwoven among each other and also the cerebrospinal response.

In his view, then, emotion is distinguished as an organized, purposive response of the individual to environments or internal conditions marked by

overt or covert actions.

Chein (1972, pp. 275-76) likewise assigns to emotion the task of "assessment-of-situation". However, he goes beyond a description of affective states and their function and discusses the role of "right" affects and how they may be developed.

. . . it is important to try to achieve the right affects by seeking out occasions in which they are likely to occur, avoiding occasions likely to promote wrong affects, and seeking to monitor one's feelings and to discipline them. That is, having right and not having wrong affects becomes an enduring concern. The normatization of affect is not the only factor to have such an effect. Affects, after all, come to signify how our affairs are going so that they provide data that are invaluable in monitoring our affairs. Moreover, the uncertainties of existence are such that we need feedback to tell us that our management is as effective as we hope it to be.

Chein also confirms our contention that when one organizes his emotions against himself by failing to like or enjoy those tasks which are necessary for his survival, he suppresses his own potential and winds up a pathological case. He says:

In the case of a feeling like pleasure, where it seems to be much easier to judge intensity than depth, one may, as a consequence, become preoccupied with the pursuit of (and, with respect to the future, the assurance of) relatively superficial and easily achieved pleasures and the avoidance of displeasures, including those of the latter that may be associated with our more important enterprises.

Out of this statement looms a mighty task—to teach children how to like those enterprises which contribute to the continuing actualization of their potentialities and to the quality of their survival. More attention will be given to this topic in the section, "Pedagogical Implications".

Affective Conditioning

Living organisms that have the greatest probability of survival are those which can learn to avoid experiences which threaten survival. Living systems therefore need to have built into them a means of appraising viability at any given moment. Emotions as states of consciousness

function as such appraisers. If a person has gone through an experience which threatens survival, he will retain in his memory a strong association between the experience and the threat such that when he is about to have a similar experience, there will be an emotional reaction that will predispose him to avoid the experience a second time. The emotional reaction functions as an appraiser of the organism's viability as it approaches the threatening situation. The subjective emotional experience informs the organism that there is danger ahead and that action ought to be taken to avoid it.

Thus, patterns of emotional reactions are more subject to learning through conditioning than almost any other category of potentiality. Emotional reactions have their roots in bodily sensations of pain and pleasure—sensations which give direct information about the state of the body in terms of physical threats (lack of oxygen, lack of food, broken limbs, or other kinds of wounds or injury)—sensations which become associated with particular perceptions, thoughts, and muscular movements.

The child's interactions with the environment has an effect on him just as he has an effect on it. Generally speaking, the most responsive aspects of the environment will tend to have greater effects on the human being than unresponsive environments. For instance, a child who approaches a hot stove and touches it will have a more intense emotional experience than touching something that is neither hot nor cold and which does not move; a child who catches his fingers in a mousetrap will have a more intense emotional experience than he would if he touched a wooden block. In other words, there are more dangers as well as possibilities for increasing viability among those elements of the environment which are responsive. The most responsive of all environments is the human environment: that the interaction is rewarding (positive), neutral (zero valence), or punishing (negative). It is important to remember that children may receive punishment from adults while they are interacting with a passive or unresponsive aspect of the physical environment and come to associate the punishment (negative emotional state) with that particular aspect of the physical environment as well as with the person providing the punishment. Of course, the same is also true for neutral and good (rewarding) experiences.

The kind of organization of emotional life which underlies affective competence depends upon just and reasonably consistent reactions on the part of the human environment. For example, if a child interacts with a particular aspect of the physical environment (say, a cookie jar) and gets a spanking from his mother on one occasion and then when he interacts under similar circumstances with the same part of the physical environment on a subsequent occasion, he not only gets a cookie but also a smile or some other kind of symbolic cue of approval or reward, the child's association of both painful and pleasureable experiences with the interaction with the

same physical object may very likely introduce conflicts into the organization of his emotions. Such conflicts make it almost impossible to give an accurate report on the condition of the child's viability (i.e., he does not know whether it's safe or unsafe); in fact, his emotional reactions indicate that it may be either or both and the conflict itself precipitates other kinds of emotions which may be debilitating—frustration and anger stemming from the consequent paralysis or inability to act.

Affective development from an ANISA perspective accommodates the classical theory of conditioning, takes into account the power of modeling, imitation, and identification, incorporates the concept of effectance as a source of intrinsic motivation (i.e., it is self-rewarding), and accepts ideals and sense of purpose as indispensable determinants in the organization of man's emotional life. The ANISA theory shows how and why justice is the primary social force in associating the hope-related emotion with patterned uses of energy which assure viability (continuing actualization of potentiality) and fear-related emotions with uses of energy which threaten viability (suppress potential). Injustice creates pathological organization of the emotions because it causes fear-related emotions to be associated with uses of energy that are not bad or wrong. This leads to inhibition of actions that should, in fact, be regarded as acceptable. Given this explanation, it is not difficult to see why the consequences of prejudice are so devastating—the consequences are nearly always forms of unjust action which create pathology in the organization of emotion and undermine the development of affective competence.

Physiological Perspectives

The field of neurophysiology has opened new areas of investigation in affective development. Certain parts of the brain and their functional relationships to emotion are now known. Descriptions of these are needed in order to understand the role the nervous system plays in emotional experience. Only the briefest of descriptions is provided here.

The central nervous system is composed of the brain and the spinal cord. Nerve cells called neurons pick up electrical impulses from receptors in various parts of the body, both external and internal, and transmit messages through the spinal cord to the brain. Other nerves send messages from the brain to various parts of the body.

The nerves which transmit messages back and forth from the brain to the skin and muscles of the limbs comprise the peripheral nervous system. Other nerves which transmit messages back and forth between the brain and the viscera (heart, lungs, intestines, etc.) comprise the autonomic nervous system. The autonomic nervous system helps regulate heart rate, blood pressure, and gastrointestinal functions, all of which occur more or less automatically and are not ordinarily under voluntary control. The

autonomic nervous system has two sub-systems: sympathetic and parasympathetic. The sympathetic nervous system governs actions during emergency situations. It regulates the blood circulation so that organs like the brain, the heart, and the limb muscles can receive a greater supply of blood in order to fight or to flee. It also causes dilation of the pupil of the eye, which gives a greater field of vision. The parasympathetic nervous system controls those actions which help the organism survive over a long period of time such as digestion, storage of sugar in the liver, and constriction of the pupil to protect the eyes from too much light.

Certain parts of the limbic system are particularly implicated in the subjective experience of emotion. The primary function of the hypothalamus is the regulation of consummatory behavior prompted by biological needs such as hunger, thirst, and sexual drives. The hypothalamus is also implicated in the behavioral aspects of emotion; for example, tame cats can become savage when electrically stimulated in the hypothalamic area.

The reticular-activating system is composed of a mass of cells from the brain and other parts of the body which extend from the brain stem to the thalamus. The function of the reticular-activating system is to keep the brain in a state of consciousness or wakefulness. It alerts the cerebral centers to incoming sensory impulses. It regulates the flow of sensory signals into the brain, thus determining whether the organism will be in a state of arousal or in a state of restfulness or sleep. Different states of arousal are experienced as different kinds of emotions.

The limbic system is an interconnected group of brain structures located in the forebrain. It is responsible for numerous reactions of the organism including attention, the inhibition or facilitation of movement patterns, and visceral adjustments. Most of the impulses carrying "emotional" messages are received by the limbic system which passes them on to other cortical areas.

As an example of emotion related research, we cite Grastyan's (1968) report on work carried out by Olds and Milner. They experimented with the electrical stimulation of the hypothalamus of freely moving rats by means of implanted electrodes and demonstrated that, when certain regions of the hypothalamus were stimulated, the animals invariably returned to that particular corner of the experimental enclosure where the stimulation had been applied, while when certain other areas were stimulated, they carefully avoided returning to the spots where this stimulation has taken place.

This preference-and-avoidance behavior suggests that the animals desire stimulation of certain areas of the hypothalamus, presumably for the pleasant effects produced, while avoiding the stimulation of other

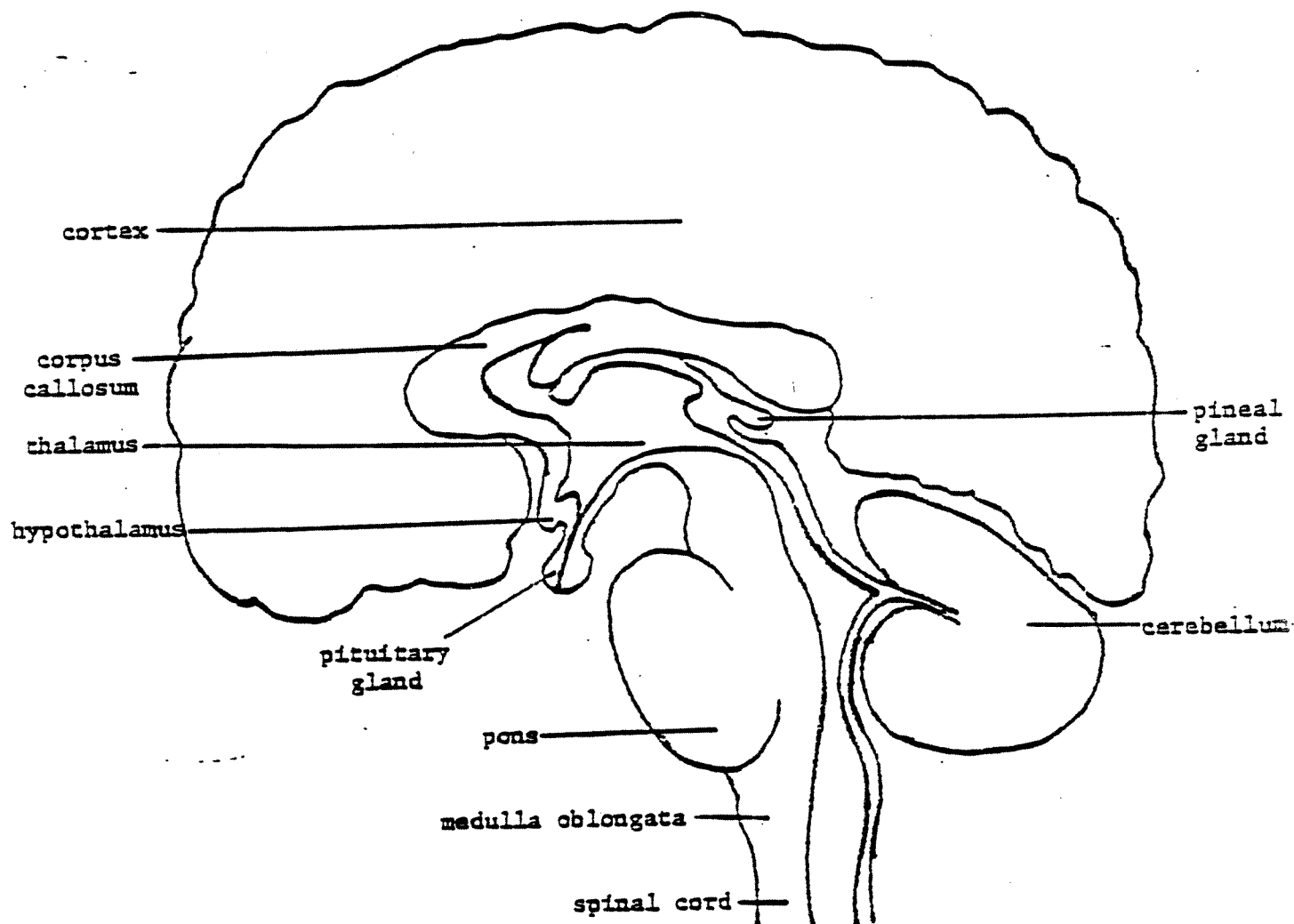


Figure 1

Cross-section of the brain

areas, apparently because of the disagreeable effects.

This experimental method of studying the relationship between brain structure and behavior permitted both a systematic mapping of cerebral areas characterized by positive and negative self-stimulation (reward and punishment areas) and the quantitative evaluation of the effects of electrical brain stimulation. This study showed that the two effects, reward and punishment are related to specific anatomically definable and interdependent areas of the central nervous system.

Another important way in which the nervous system is implicated in affective experience is through the stimulation of glands which secrete hormones. Hormones are biologically active chemical compounds which are put into the bloodstream and act only on specific target areas or organs of the body. The word "hormone" comes from a Greek word that means "to stir up". Certain impulses coming to the glands via nerve cells will stimulate the secretion of hormones; other impulses will inhibit secretion. Once in the bloodstream, the hormones circulate throughout the body and act on ("stir up") other organs and muscles. They can, for instance, help to regulate behavior by increasing the level of excitation, causing muscular movement, or influencing visceral functions, all of which are patterned uses of energy which are reflected in emotional states.

Aesthetic Perspectives

Aesthetic experience depends upon the apprehension and appreciation of order. Order, according to Whitehead, is the lure of beauty. Furthermore, order is the primary quality of living systems; disorder or randomness is inimical to life. This "feeling good" about order and beauty is important to survival. Having the hope-related emotions associated with order and beauty helps to guarantee survival and improve its quality. Aesthetic experience, then, makes us feel more viable. It is therefore not surprising that man should create order and beauty in his surroundings. The arts are the chief formal expression of beauty which man has developed down through the ages. The process of producing a work of art symbolically represents the process of becoming (translating potentiality into actuality) and that process is the reality of viability. The arts—literature, poetry, music, dance, visual arts, and the plastic arts—as viewed by the ANISA Model—constitute a symbol system which helps man to represent visions of possibilities (potentialities) open to him. Conscious contemplation of these possibilities lure him forward. Consciousness is possible because man is capable of symbolic manipulation. A symbol is something that our minds can make stand for or represent something else. Consciousness, according to Bergson (1920), is the hyphen which joins what has been with what will be. The hyphen then must be comprised of symbols because without them there would be no way to represent the past in order to hold it in memory so that it can be compared

with the present in anticipation of the future. Symbols, therefore, sustain consciousness and are an indispensable part of identifying, expressing, enhancing, and perpetuating the emotional life of man.

Because symbols elicit and excite our emotions, we need to have concern for what they stand for or mean. The meaning of anything is in part due to the emotions which are associated with it and which "transfer symbolically" (Whitehead, 1959, p. 84) to other areas. Ultimately, meaning comes down to the question of survival—viability.

Ideals are very important "visions of possibilities", particularly "ideals disclosing some sense of immortality" (Johnson, 1959, p. 55). No ideal in this regard is more important than the self-ideal—a symbolically held vision of what one can become. To actualize that ideal, one must organize and like organizing his energies in that direction. Whitehead says, "We are considering ideals shaping emotion and thus issuing in conduct" (Johnson, 1959, p. 123). Because they can represent anything not present and things yet to come, such as ideal future states, symbols are powerful lures for the actualization of human potentialities. Consciousness and the related capacities to create symbols and form ideals distinguish man from all other beings. It is because of these characteristics that the ANISA Model asserts the spiritual nature of man. Piper (1956, p. 39) expresses it eloquently:

The spiritual life evolves by increasing the range and clarity of one's ideals together with more power and joy in their progressive realization. Ideals are future values which we acknowledge ought to be realized. Hence spiritual life oscillates between present light and an adventurous preview.

Ethical Perspectives

Just as there are self-ideals, there are also social ideals. The former are incomplete without the latter. The organization of emotions around social ideals is therefore indispensable to moral competence. Within the context of the ANISA Model, the self which emerges is affectively competent is always understood to mean a socialized, benevolent self who cares about the welfare—viability—of all humanity.

Taking a moral position on how human energies are to be expended, and on how human emotions are to be integrated in the process establishes within the ANISA Model as context for making decisive judgements about the direction moral development should take.

The quotations in the first pages of this paper are vivid testimonies for the need to reduce the indeterminacy and inconsistency in ethical

matters. Otherwise, justice can have little meaning.

Essentially, the questions raised are: Does the nature of man have a moral dimension? If so, what is the philosophical base which supports that conclusion? How does this translate into educational practice? Aschenbrenner (1971, pp. 18-19) affirms that "man has a moral dimension to his being and a grasp for moral phenomena because he has a distinct form of language for valuation. We can make evaluative discriminations", he says, "because we command evaluative concepts and discourse" According to the ANISA Model, which agrees with Aschenbrenner's affirmation, the essential criterion for evaluation is survival-viability of the organism. Because man is not a precocious species, he is necessarily a social being and his viability necessarily depends on how he interacts with other human beings. Since emotions provide a reading of the organism's condition of viability, affective competence is inextricably bound up with moral competence.

PART II

PROCESSES UNDERLYING THE DEVELOPMENT OF AFFECTIVE COMPETENCE: ANISA

The affective competence of a person depends upon his ability to organize feelings and emotions so that further potentiality is released in ways which constantly increase the quality of survival for himself and others. Emotions, as non-verbal states of consciousness, provide a direct subjective assessment of the organism's condition of viability. If they are not organized properly, the assessment will be inaccurate and lead to behavior that does not enhance survival. The organization of emotions emerges through their differentiation into hope-related and fear-related sentiments and their association (integration) with patterns of energy use that lead to increased viability and decreased viability respectively.

Since the survival of an organism has to be capable of evaluative processes which assess the condition of viability at any given moment and provide a basis for modifying interaction in directions that increase the probability of survival. We view viability on two levels: (1) biological and (2) psychological. We are concerned in this paper primarily with the psychological processes underlying viability as they pertain to the development of affective competence. However, it is important to acknowledge that life inheres in the human organism's biological processes and energy system. Thus, biological impairment which stems from nutritional deficiencies will have an effect on affective development and such deficiencies will be reflected in affective states. Furthermore, because of their physiological effects, the excessive use of alcohol,

drugs, or nicotine will interfere with an accurate reading of conditions of viability. A false reading indicates impairment in the ability to differentiate objects, events, and feelings that conform to reality. Consequently, one may feel relief or even euphoria after taking alcohol or drugs and therefore not realize that he is actually contributing to the suppression of human potential—his own, and in most instances, that of others, including his own progeny.

Viability from a psychological point of view refers to uses of energy related to psychomotor, perceptual, cognitive, volitional and affective processes which guarantee survival. The affective processes provide an assessment of how the processes in the other areas are increasing or decreasing viability by virtue of the kinds of interactions with they environment they sustain.

According to the ANISA Model, affective competence is comprised of several interrelated processes, presented in the following diagram.

Evaluative Processes	Regulative Processes
Reflection	Facilitation
Interpretation	Inhibition
Appraisal	Coping
	Managing

When Evaluative and Regulatory processes are applied to interaction with the different categories of environments as specified by the Model, they take on different forms. Since the human environment is by far the most influential in human development, we will discuss only the forms these processes take as the human being interacts with others. The "others" we refer to here function as a secondary source of affective stimuli which gives rise to the primary sources or antecedents: the perceptual, psychomotor, cognitive, and volitional activities that occur as the person interacts with others. And, we refer to the processes collectively as Empathic processes, which are comprised of:

1. Imitation,
2. Identification, and
3. Reciprocation.

The following sections present definitions and descriptions of these processes. Since emotions never occur in a vacuum (i.e., they are always associated with other patterned uses of energy), it is almost impossible to

describe them apart from their correlates or associates. Hence, the descriptions include references to other categories of potentiality (primary sources or antecedents of affective responses) or particular environments (secondary sources).

Evaluative Processes assess the consequences of certain patterns of energy utilization formed in response to data from the environment. These processes always take into account a perspective of the past for its relevance to the present and future purposes. After-effects of previous experience tend to modify or color later experiences. All experience, therefore, helps to structure affective responses which, in turn, have an influence on all other experiences. Through these experiences a person develops affective immanence—a kind of emotional life history of an individual. Affective memory, then, participates in the structuring of emotional reactions in the present.

Evaluative processes are comprised of the following sub-elements:

1. Reflection is the process of recognizing one's emotional state, of consciously identifying one's feelings at a given moment. Reflection brings an answer to the question: "How do I feel?".
2. Interpretation is the process of assigning meaning to an emotion. Evidence from the environment (both internal and external) must be gathered to identify what set of circumstances resulted in the particular emotion being experienced. Interpretation traces the cause of the emotion; it answers the question: "Why do I feel this way?".
3. Appraisal is the process of deciding whether or not one's emotion is appropriate for the environmental circumstances. It determines whether or not the emotion adequately reflects the condition of viability of the individual. Depending on this appraisal the individual will either facilitate, inhibit, cope with, regulate, or manage the emotion as he deals with the situation at hand. Appraisal answers the questions: "Is my feeling justified?" and "What should I do with my feeling?".

Reflection, interpretation, and appraisal constitute the evaluative processes which promote the development of affective competence. Taken together, these processes determine the assessment of the condition of viability and thus participate in the conscious direction of the ensuing course of action (which will also have its emotional counterpart, and so on, ad infinitum).

Lack of command of evaluative processes may account for the mental breakdown that comes when one constantly makes inaccurate evaluations and bases his actions on erroneous information. The preservation of the integrity of an organism depends upon differentiating "appearance from

reality" to use a Whiteheadian phrase. The evaluative processes seek the "truth" which is the correspondence between appearance and reality.

Regulative Processes (facilitation, inhibition, coping, and managing) resolve affective dissonance which stems from inconsistent social requirements, unconfirmed expectations, inconsistent feedback about one's becoming; provide for the constructive and controlled release of emotional energy; they help to regulate aspects of experience to the background when necessary to negotiate experience in the foreground. In essence, regulative processes allow for the appropriate and balanced release and appropriate inhibition of emotional energy according to a standard or purpose which enhances conditions of viability. Much of this is accomplished by unifying the depth and intensity of emotions and coordinating emotional polarities like joy and sorrow; pathos and tenderness. Finally, regulative processes are action oriented and therefore help to motivate the reshaping of the environment to improve the condition of viability.

1. Facilitation is the process of releasing a certain emotion.
2. Inhibition is the process of blocking or preventing the expression of a particular emotion.
3. Coping is the process of organizing the hope-related emotions to sustain a required level of activity despite a conditioned emotional reaction that in the past has been associated with a dangerous or unpleasant situation. Coping means mobilizing emotions to keep one going at all costs in the face of obstacles. Regaining viability is the objective.
4. Managing is the process of keeping the hope-related emotions supporting action which maintains viability. While coping refers more to a concerted drive to remove threats to viability, managing refers more to keeping the threat away once it is gone.

Facilitation, inhibition, coping and managing serve to integrate emotions by bringing them under some kind of rational control. Thus, these processes necessarily have cognitive elements. These elements help an individual to work through temporary instabilities produced by overload of input from both inner and outer environments and to regain stability.

Empathic Processes arise out of evaluative and regulative processes as they pertain to interaction with others. The word "empathy" comes from the word which means "in-feeling". While empathic feelings concern assessment of viability as determined by relationships to all other beings in the universe, both animate and inanimate, we are primarily interested here in discussing empathy as it relates to human interactions. Empathic

feelings are often referred to as the prime enforcers of unity.

Sub-processes include:

1. Imitation is a process of accommodating to oneself those behaviors manifested in a model. The degree to which imitation takes place depends on the perceived need for the competencies exhibited by a model. Kuhn (1973) holds the view that one accommodates to models in the environment insofar as they are relevant to him and he attempts to incorporate these experiences into his world view. In an experimental imitation situation the child may imitate if he considers it the appropriate activity and the modeled behaviors are within his capacity. Much work remains to be done on the effects of affective modeling although we hold the view that significant others in an environment must become effective models for children.

2. Identification is an acquired cognitive-affective response within a person which embodies some or most of the attributes, motives, characteristics and affective states of a model in a way that these elements become a part of his psychological organization. The major implication of this view is that the person may react to events occurring to the model as if they occurred to him. Kagan (1958) recognizes two goals which motivate identification: (1) a feeling of power or mastery over the environment and (2) love and affection. Attainment of these goals leads to diminution of anxiety over helplessness or loneliness.

3. Reciprocation is developmentally a primary process. It begins with mother and infant in the learning and synthesis which takes place between the systems of internal and external communication of each. What is experienced by or takes place internally in the infant is communicated in body terms to the mother who, with varying degrees of success and through her own affectively felt experience, responds to the infant's needs. This is the prototype of a characteristic property of affects, namely, that manifest expression of affection by one person typically evokes an affective response in others. A mutual return of affectivities is a cohesive force which builds trusting relationships.

Imitation, identification, reciprocation are those empathic processes which organize emotions associated with the interaction in the human environment.

The categories of processes mentioned in this paper do not constitute a formal curriculum in schools today. Because these are processes underlying the organization of emotion, we feel obligated to include them in the process-curriculum. While much work remains to be done in the affective domain, we are certain there is merit in forging ahead on the regulative processes: facilitating awe, appreciation, courage, gladness, happiness, gratitude, hope, humor, joy, love, modesty, reverence, trust,

and wonder; inhibiting arrogance, destructive impulses, envy, jealousy, and rage; coping with despondency, disappointment, hatred, prejudice, resentment, revenge, and sadness; managing anger, anxiety, cowardice and fear.

PART III

THEORETICAL JUSTIFICATION: ANISA

The function of theoretical justification is to show why the processes are a legitimate part of the ANISA curriculum. The sole justification is that they are the necessary processes underlying learning competence. According to Jordan (1974, p. 60), learning competence is:

the conscious ability to break down experience, whether internal or external, into separate contrastable elements in a new way, thereby generating new perceptions, new thoughts, new feelings or emotions and new intentions which may or may not be expressed immediately in some form of new overt behavior (integration) and, to transfer the new combination or integration to similar situations (generalization).

The attainment of affective competence depends upon these same fundamental processes. One's survival in this world depends, in part, on his competence to "read" it with some measure of accuracy. This requires one to differentiate, integrate and generalize aspects of experience in reference to feelings and emotions in ways that keep him in touch with reality. Being in harmony with reality is the hallmark of a competent person. Affective consciousness helps one "read" the world, interact with it, and survive in it.

Research in the affective domain adequately demonstrates that as the process of differentiation is strengthened a child is able to make more accurate "readings" of a constantly changing environment. As integration is strengthened, the child reacts positively to those sources and ideals which facilitate the release of human potential and negatively to those which suppress human potential. A higher level of integration occurs when a child is able to make the match between his reading and reality. As a child makes more and more accurate readings, he begins to generalize accurately. In the process he becomes aware of which readings are likely to recur under what circumstances. When one can depend on his readings because of his immanence, he recognizes that the new occasion to take a reading will be in conformity with what has gone before and he, therefore,

feels competent in assuming that the same results will accrue from similar actions.

Each category of potentiality contributes its gradations to the "psychological yardstick" for measuring affective development.

DEVELOPMENTAL CONSIDERATIONS

Development, according to the ANISA theory, is sustained by interaction of the organism with the environment. What kinds of interactions with what kinds of environments foster and sustain affective development? These questions will receive very general treatment at this time because we lack the evidence provided by longitudinal research along these lines of inquiry. There is, however, a vast literature on emotional development generally organized on the notion of what is considered the "norm". Developmental levels organized around such norms are usually age-related, and therefore, fail to account for equally important variables such as the quality of environments and the quality of interactions in those environments which may make a difference in the affective competence of children.

There is evidence which indicates that interaction which nurtures affective development, psychologically and biologically, begins in the uterine environment. The Fels Institute workers at Antioch College, Yellow Springs, Ohio have found that emotional disturbances in the pregnant mother may be communicated to her fetus in chemical form. This is shown by a marked increase in the activity of the fetus. Under severe emotional stress, especially during the latter months of pregnancy, such mothers have babies who become hyperactive, irritable, and squirmy. Apparently, the mother's emotional disturbance manifests itself in impulses which pass from the cortex to the thalamus and hypothalamus, proceed along the infundibulum to the pituitary gland. This gland then secretes various hormones directly into the bloodstream which activate the glands of the rest of the body, and pass directly through the placenta into the fetus and there act upon it. Since the chemical secretions of the mother influence the viability of the unborn child, the emotional states of the mother will have effects on the child even before the external environment can impinge upon him.

Evidence is mounting which confirms the role of nutrition in affective development. Eisenberg (1973, p. 221) summarized earlier studies and concluded that:

. . . the rapidly growing brain of the fetus and infant is excruciatingly dependent on the adequacy of its nutrition. What has been equally evident is that the nutriment the growing brain requires is affective and cognitive . . . The extraordinary dependence of the human young upon adult care and caring provides both an unparalleled opportunity for mental and emotional development and a period of vulnerability to profound distortion by neglect.

We can discern from these brief references that the issue of viability assumes awesome proportions when one considers that the interactions of other human beings affect that viability in ways that release or suppress human potential. Obviously an impoverished environment—biologically and psychologically—combined with impoverished interactions will most likely result in human beings who are affectively deficient and who, therefore, are unable to accurately assess their condition of viability and respond appropriately.

As development occurs in a process there is a progression from a state of relative undifferentiatedness to a state of increasing differentiation and hierarchic integration. The processes we have identified for the affective curriculum await further research to ascertain information pertinent to their hierarchical order (invariant sequences, sensitive and critical periods, etc.).

Because the human environment is implicated so heavily in affective development, we place trust at the core of all the interactive processes. The infant must be able to satisfy his basic needs for food, warmth and comfort. Upon the foundation of trust that develops during this period rests his emotional security throughout life.

PART IV

PEDAGOGICAL IMPLICATIONS

Teaching competence—knowing how to teach—is the conscious ability to arrange environments and to guide interactions which make it easy for children to learn how to learn. This means that the guided interactions must facilitate differentiation, integration, and generalization as they pertain to affective potentiality so that children become affectively competent at an optimum rate. Teaching competence also depends on knowing what to teach, that is, having knowledge of content as well as process (Carney, 1975).

We have indicated that affective development proceeds largely, by interactions in the human environment. For that reason, we focus attention now on certain aspects of arranging the human environment and of guiding interaction with it in ways which facilitate the attainment of affective competence.

ARRANGING THE HUMAN ENVIRONMENT

Maintaining Biological and Psychological Integrity

Whitehead (1959, p. 18) reminds us that "our most immediate environment is constituted by the various organs of our own bodies" In other words, each person is an omnipresent part of his own human environment that he must take care of. To maintain the biological integrity of one's own body is, in part, an assurance of wholesome psychological functioning. therefore, those arrangements which support nutrition and learning will increase one's viability, and will set processes in motion for the release of further potentiality.

One of the fundamental realities, expressed as a first principle in the philosophical base of the ANISA Model, is that human potential is unlimited. A teacher who arranges his actions, perceptions, thought, and feelings around this view regards no child as uneducable and interacts with children on the basis of their positive strengths and possibilities. Children bring with them an affective immanence which must be diagnosed if a teacher is to prescribe developmentally appropriate learning experiences.

Modeling (Bandura, 1969)

Since research has shown modeling to be one of the most effective ways of teaching, the teacher must be careful how he functions as a model—how he "arranges" the bit of human environment he represents. Most of a child's social behavior is learned initially from observing the actions of others. This means that modeling influences learning significantly. It is important, then, for a child to have as his models persons who reflect morally sound principles and are calm and relaxed. It is also important that he have about him persons who emote spontaneously, whose lives are enriched by responding to hope-related emotions. A dynamic model evinces such a radiance that a child experiences a vicarious "feeling good" about the responses the model makes.

Our major task is to exploit fully the potentialities of the modeling process so that emotions are conditioned in ways that enhance viability.

Regarding Human Diversity Without Prejudice and with Appreciation

We assume that every teacher has so successfully identified himself with the human family that he regards the diversity of humanity not only without prejudice, but with appreciation. The manifestation of prejudice (racial, sex, religious, ethnic, class) toward anyone is a deadly suppressant of human potential particularly because the victim's feelings get organized around fear-related emotions. Overcoming prejudice means finding and responding to the most fundamental reality of man's nature so that everyone's feelings get organized around hope-related emotions. An appropriate grouping of children across age, sex, class, and ethnic categories makes possible a variety of arrangements in the human environment which may alleviate emotional commitments to errors and falsehoods about others. One of the advantages of this arrangement is that, while developmental needs are met, children have the opportunity to interact with each other under non-threatening circumstances.

Establishing and Enforcing Ground Rules

The purpose of a set of guidelines which establish boundaries is to facilitate the interactions of all the individuals in the physical environment. Ground rules assist children to use their energies in mutually supportive ways so that learning proceeds with a minimum of distraction. Furthermore, ground rules create order in the human environment so that cooperative behaviors are possible. Given this context, the emotions are organized in positive directions. Under such benevolent circumstances a child learns how to evaluate and how to regulate the emotions he learns, which include when, where, and how to facilitate or to inhibit their overt manifestations. In addition, there is opportunity for him to acquire the ability to evaluate verbal and non-verbal signs of emotions in his acquaintances.

Guiding Interaction

Of the many modes of guiding interaction, giving feedback, giving directions (verbal and non-verbal), rewarding and punishing have particular implications for promoting affective competence. Guiding interaction presumes that the necessary diagnostic assessments have been made in reference to the children.

Giving Feedback

Feedback in the affective domain serves the purpose of helping children to evaluate whether or not their emotional energy increases their viability and the quality of their survival. Feedback must help children understand why the expenditure of their energy is warranted, unwarranted, reasonable, unreasonable, justified, or unjustified in view of the current

circumstances. An accurate evaluation determines which regulative process or what combinations of them to call into action. After the epistemic why has been adequately responded to children need ample opportunity to discuss, to role-play, and in other ways to find the best means of releasing their emotional energies. The ultimate goal is to have children so competent that they can provide their own feedback, thus paving the way for them to make "creative advances into novelty".

Giving Directions (Verbal and Non-verbal)

Every time a teacher gives directions or makes requests his tone of voice and non-verbal behaviors set the emotional tone of the moment. Every voice variation and every gesture is "read" (evaluated) by the children. The formidable job is to make sure that the verbal and non-verbal directives coincide consistently.

One of the best ways to facilitate and consolidate children's affective development is to have a genuine purpose for every directive and every learning experience. Affective drive for learning is likely to occur when the process of learning is an intricate part of the task. Moreover, if directions given are clear, chances are great that standards of excellence can be met.

Teachers evoke emotional responses from the children by their directives, and likewise, children display a variety of verbal and non-verbal behaviors which need to be read accurately by teachers with the goal of increasing the quality of survival.

Rewarding and Punishing

In the ANISA system justice is the key factor in determining whether rewards or punishment are appropriate to certain patterns of energy use. Both rewards and punishments should be deserved and individualized. Indiscriminate praise and blame confuse children because they get no differentiating cues to guide their actions. The element of justice can also help to determine what form punishment should take. Whatever form it takes it should be appropriate, timely, and clearly distinguished from the child (i.e., the disapproval of a pattern of energy use need not mean disapproval or rejection of the child).

Many learning experiences are, in themselves, intrinsically rewarding and no external rewards are necessary. The goal of the ANISA Model is to help children love learning so that doing those things which release their potential will be the most rewarding of all activities. In the context of Mowrer's two-factor learning theory, a good teacher arouses emotional reactions of "feeling good" or hopeful in connection with the content of the material that is being taught.

CURRICULUM IMPLICATIONS

The ANISA curriculum is defined in terms of process and content goals. Process goals are organized around categories of potentiality of which "affective" is one. Content goals are organized around the classification of environments: physical, human, unknown, and unknowables.

Process Objectives

The process curriculum as outlined in Part II of this paper has yet to be organized into specifications. However, the definitions are clear and provide at least the base for immediate application in the on-going school program. The process curriculum in the affective area is being "taught" every moment of the day as teachers interact with children.

Content Objectives

The traditional school curriculum serves the ANISA curriculum organization well. Language, communications (reading, writing, speaking), the social sciences, human relations and ethics mediate the human environment. Therefore, the fusion of the affective process curriculum with any of the above content areas suggests many possibilities for designing content objectives.

Role of Interaction

The sole purpose of the interaction component in the ANISA curriculum is to foster learning competence. Guidance which helps a child to attend to and to interact with environments so that he learns consciously to differentiate, integrate, and generalize aspects of experience in each category of potentiality (psychomotor, perceptual, cognitive, volitional, affective) is the key factor in the release of human potential.

In the past when writers were grappling with the concept of emotions and describing them as passions which transcended reason, they perhaps intuitively recognized their implication in the transformation process—the process of self-actualization. Feelings of commitment are an important element in self-actualization. Commitment is a cherishing of an unrealized destination, goal, or possibility. We will speculate and experiment to the degree that affect influences reason, perception, and volition to venture forth. From this point of view, emotion and affective competence are defined in terms greater than mere survival. It is heavily implicated in the improvement of the quality of survival. Indeed, it is implicit in the notion of transcendence because it is the subjective emotional experience that makes us feel able and inclined to make the "creative advance into novelty"—it is an experience we give many names to: enthusiasm, courage, excitement, anticipation, confidence, hope.

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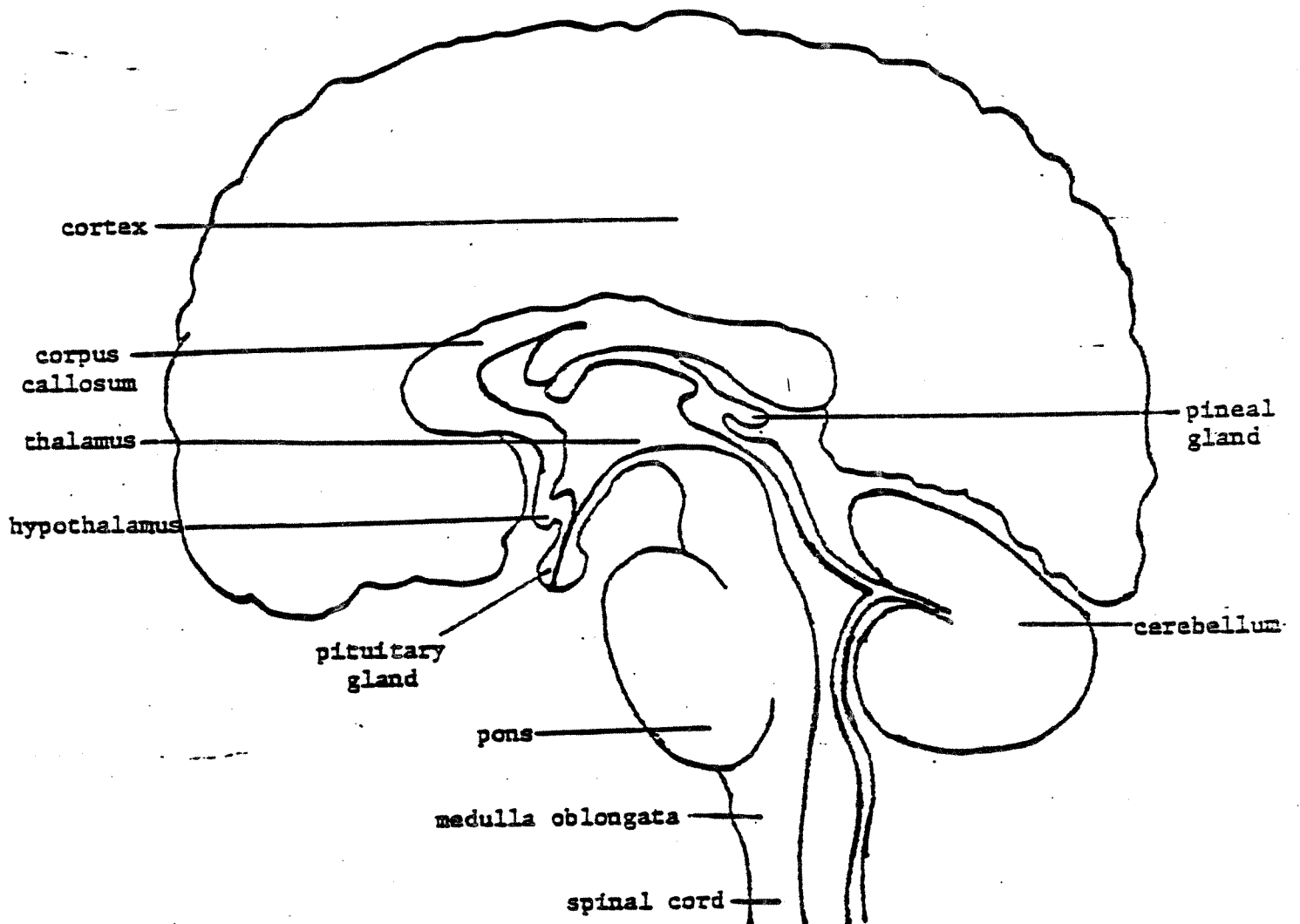


Figure 1
Cross-section of the brain