Awakening Creative Behavior: Contributions from the Rudolf Steiner Method

Carla Thersa Mattioli
University of Massachusetts Boston

Follow this and additional works at: http://scholarworks.umb.edu/cct_capstone

Recommended Citation
http://scholarworks.umb.edu/cct_capstone/196
AWAKENING CREATIVE BEHAVIOR:
CONTRIBUTIONS FROM THE RUDOLF STEINER METHOD

A Thesis Presented
By
Carla Theresa Mattioli

Submitted to the Office of Graduate Studies
University of Massachusetts, Boston in partial fulfillment
of the requirements for the degree of

MASTER OF ARTS IN CRITICAL AND CREATIVE THINKING
September 1984
AWAKENING CREATIVE BEHAVIOR: CONTRIBUTIONS FROM THE RUDOLF STEINER METHOD

A Thesis Presented
by
Carla Theresa Mattioli

Approved as to style and content by:

Dr. Delores Gallo, Chairperson of Committee

Dr. Robert Swartz, Member

Dr. Steven Schwartz, Member

Dr. Robert Swartz, Director
Critical and Creative Thinking Program
In my efforts to understand the fundamental elements of Rudolf Steiner’s (Waldorf) Educational Philosophy for the purposes of writing this thesis, I realized early on that the process of attaining such understanding would necessarily require much more than reading and comprehension on an abstract, intellectual level. In order that I might experience the principles of Waldorf Education in motion, as they were designed to be experienced, I would need to immerse myself into the experience of the arts and self-study with my mind, physical body and emotions, as well as to read and study the works of those who understand Waldorf Education. My role as researcher, then, required that I become a participant-observer, in order that I might explain Waldorf Education through my own personal involvement and experience.

My research exploration included visitations at a number of Waldorf Schools in the New England area, to observe first, sixth, eighth grade and high school classes. Subjects ranged from Geometry and Music to Bookbinding, Weaving, American Studies and Woodcarving. I was also able to conduct informal interviews of Waldorf students, parents and teachers during my travels.

In addition to visiting schools, I participated in quite a number of workshops and seminars designed for Waldorf
teachers and parents, some of which included: "Developing the Twelve Senses of the Child" with Ingo Maier, an expert in Curative Education; "Awakening to the Soul Mood of Summer" which incorporated practice in the areas of eurythmy, watercolor painting, clay modeling, speech and exercises in Goethean observation of self and nature; workshops and classes on practicing the art of story-telling and exploring watercolor painting in the Waldorf School tradition with Nancy Mellon, a Lexington Waldorf School teacher; and another seminar on story-telling which involved readings and discussions and creating adaptations of selected fairy tales of the Brothers' Grimm collection.

In addition to workshop participation, I have also attended festivals at the Waldorf School, musical and eurythmy performances and lectures by visiting specialists in the field of Waldorf Education. On the physical labor level, I've helped with the interior wall-painting of a classroom while learning the techniques of "lazuring" - a special kind of layering of wall paint colors to achieve a certain aesthetic effect.

By participating in these workshops and various events, I have been very fortunate to have met a number of extraordinary individuals who have inspired me with their wisdom, knowledge about children and capacity to share their insights into the work of Rudolf Steiner.
I did feel, after involving myself on the physical, and emotional as well as intellectual levels with the exercises designed in the Waldorf tradition that this work allowed a new clarity to unfold in my understanding of the works of Rudolf Steiner. I also watched my writing become richer with additions and connections made possible through my own personal integration of the information.

This thesis is designed to honor the work of those artist-teachers who are dedicated to Waldorf Education. Amidst the type-written pages, I have tried to maintain a visual component and bring a sense of balance, rhythm and color to the wholeness of this project.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>UNDERSTANDING CREATIVE BEHAVIOR: A PRESENTATION OF THE KLEIN MODEL</td>
<td>1</td>
</tr>
<tr>
<td>II.</td>
<td>PHILOSOPHICAL FOUNDATIONS AND ASSUMPTIONS OF WALDORF EDUCATION</td>
<td>15</td>
</tr>
<tr>
<td>III.</td>
<td>WALDORF EDUCATION: AWAKENING CREATIVE BEHAVIOR IN FOUR DEVELOPMENTAL SKILL AREAS</td>
<td>53</td>
</tr>
</tbody>
</table>

## Chapter II. PHILOSOPHICAL FOUNDATIONS AND ASSUMPTIONS OF WALDORF EDUCATION

- Steiner Philosophy: History and Context
- Stages of Child Development According to Steiner – In Relation to Other Theories
- Qualities of Balance and Rhythm
- Sense of Continuity
- The Role of the Waldorf Teacher

## Chapter III. WALDORF EDUCATION: AWAKENING CREATIVE BEHAVIOR IN FOUR DEVELOPMENTAL SKILL AREAS

- Developing the Skill of Perceiving
- Developing the Skill of Intellecting
  - Steiner's View of the Intellect
  - Klein's Definition of Intellect
  - Ways of Knowing According to Steiner
  - Waking, Dreaming and Sleeping
  - The Role of Non-Conscious Spheres in Knowing and Creative Production
  - Imagery and Knowing
  - How Knowing Develops Over Time According to Steiner
- Development of the Child's Consciousness as Facilitated by the Waldorf History Curriculum (Grades 1-8)
- The Teachers' Role in the Development of Consciousness
- How Does Waldorf Education Support the Klein Model of Intellecting?
- Development of the Intellect through Art
- Developing the Skill of Feeling/Valuing
  - Reverence for the Child
  - The Experience of Color
  - Storytelling and Drama
  - Integration of Values into Waldorf Education

- Developing the Skill of Responding
  - Responding and the Will
  - Development of the Will According to Steiner
  - Development of the Social Will and Social Responsibility

vi
TABLE OF CONTENTS

Chapter
IV. APPLICATION OF WALDORF METHODOLOGY:
SAMPLE LESSON DESCRIPTIONS .................. 125

Developing a Unit Theme: Begin with
the Child
The Rhythm of Lesson Planning
The U.S. Presidency: Unit Theme Objectives
and Organization for Relevance to the
Eighth Grader
Sample Lesson Descriptions
Additional Ideas for Interdisciplinary Connections

FOOTNOTES ........................................ 143
SELECTED BIBLIOGRAPHY ....................... 151
# LIST OF TABLES

1. Klein Model: Matrix of Contents and Modes .............. 11
2. Klein Model: Matrix of Contents and Processes ...... 12
4. Stages of Child Development According to Rudolf Steiner ........................................ 30
5. Waldorf School Weekly Timetable - Grade Five ....... 32
6. Waldorf High School Weekly Timetable .................. 32
7. Sample Waldorf School Block Schedule -
   (Grades Nine through Twelve) ......................... 33
LIST OF FIGURES

1. Klein Model of Creative Behavior .......... 11
2. The Four Temperaments and the Corresponding Seasons, Elements and Colors (Rene Querido) .. 37
3. Diagram of the Twelve Senses (Eileen M. Hutchins) .................................................. 56
4. Form Drawing Sample - First and Second Grades ......................................................... 83
5. Form Drawing Sample - Fourth and Fifth Grades ......................................................... 84
6. Form Drawing Sample - Historical Designs ..... 85
CHAPTER I
UNDERSTANDING CREATIVE BEHAVIOR:
A PRESENTATION OF THE KLEIN MODEL

One may imagine creative behavior as a flowering plant whose flowers, leaves, stem, roots and soil are being examined in order to find out how it grows. The result of one’s search, of course, depends on the part or parts of the plant one chooses to examine, or the part of the flowering process one is attentive to. Some theorists see creative behavior as a function of certain thinking abilities, others see it as a way of acting to transform the environment, and still others see its roots in the individual’s ability to overcome certain emotional, perceptual or cultural blocks. The essential question is, perhaps, how may we tolerate what at first seems to be such complexity, such chaos and disorder in wanting to understand creative behavior? How may we hold in our mind’s eye, the whole of this flowering plant in order to acknowledge its patterns and understand its depths?

Ronald D. Klein’s recent model of creative behavior brings us closer to answering such a question. Klein’s model was begun as part of his Doctoral Dissertation on “Evolving Creative Behavior” and continued in his article called “An Inquiry into the Factors Related to Creativity”, and it succeeds in synthesizing elements from multiple theories.
and research conclusions about creativity. In this way, it presents a balanced, multi-faceted conception of the factors relating to creative behavior. Due to its comprehensiveness, Klein's model will be used as the major lens through which this thesis will focus on Waldorf Education's contributions to promoting creative behavior in children.

In order to appreciate the foundations and depth of the Klein model, it is first necessary to describe some of the prominent theories of creativity on which Klein's model is based.

A great deal of introspection, exploration and scientific research has gone into the attempts to isolate and define creative behavior. Some of the major ways of looking at creative behavior will be presented here, in brief, so as to maintain a clear picture of the multiple factors involved.

The classical associationist theorists, such as Mednick, have characterized creative behavior as learned behavior - the result of conditioned-response learning. In other words, learned behavior is built up by the sequential and repeated linking of certain stimuli with certain responses. How "creative" one's behavior is, then, depends on the kind and the number of associations one has acquired. What seems most important about this approach is the acknowledgement that the tendency toward creative behavior can be changed, providing the environment is set up in such a way as to reinforce the "creative behavior" type of response in an
individual. The associationist approach, however, fails to confront the issues of what makes creative behavior different from other learned behaviors and what kinds of environments are necessary to encourage creative behavior.

There are other theorists who view creative behavior from a sociological and environmental perspective and who, like Mednick, see certain environmental factors as essential to the process of learning to behave creatively. They look to the external, socio-cultural environment to extract the features of support that allow creative behavior its full expression. Engineer James Adams, in his book *Conceptual Blockbusting*, notices that "our culture trains mental playfulness, fantasy and reflectiveness out of people by placing more stress on the value of channeled mental activities." The norms and values of one's own society may support or restrict one's creative behavior potential, and an awareness of this possibility is essential to overcoming such deep-set cultural and environmental blocks.

The defining characteristic of creative behavior for yet another group of theorists is not to be found in the external socio-cultural environment so much as inherent in the creative product itself. This perspective assumes that by examining a work of art in all its detail, in order to specify its objective qualities - its "unity, complexity and intensity" as Monroe Beardsley asserts, we will come to understand and
characterize creative behavior. In other words, the definition of creative behavior in this case is whatever happens that results in a certain aesthetic effect. Although this approach reveals standards by which one may wish to evaluate creative products, the product is only the last stage, the final result of a process of creative behavior, a way of being which needs to be understood in more depth.

Others who have researched creativity have focused on the creative personality and the common personality traits which creative persons exhibit. Personality theorists Barron and MacKinnon studied persons in a number of fields who were recognized to be creatively productive and identified traits these personalities shared: intellectual competence, curiosity, cognitive flexibility, aesthetic sensability, independence of judgement, originality and a sense of destiny and creative motivation in their field of production.5

Moving more in the direction of understanding the inner processes of the creative person, Wallas, in The Art of Thought, designed a model for describing steps involved in the inner creative experience. He described the stages of Preparation in which data is assembled and digested, Incubation, in which the conscious mind relaxes and the pre-conscious is activated, Illumination, the time of connection or union between the seeker and the solution, the "Aha!" stage, and finally, Verification, a stage of conscious work to re-organize and finalize the solution.6 These stages of the creative
experience have been confirmed by other researchers (Patrick, 1930) and find much support in the original writings of creative persons describing the stages of their own inner processes. 

The role of the pre-conscious and the unconscious in the creative experience, in tune with Wallas' Incubation and Illumination stages, has been emphasized again by the depth-psychologists (Freud, Jung, Kubie) who regard non-conscious elements as the well-spring of human creative potential and see the attunement to the unconscious forces as critical to creative production. The depth-psychologists see the keys to creative behavior lying in the inner psychic realms of human experience, realms which can be opened through dream symbols and imagery, attuning to body wisdom and experiencing altered states of consciousness.

Attempts have also been made by researchers to make an in-depth analysis of the conscious intellectual components of creative behavior. Guilford (1956) made one such important contribution to the field of creativity research in seeking clarification of the relationship between mental abilities and creative behavior. He aimed at isolating essential traits of creativity and distinguished creativity from intelligence, as a cognitive function. Guilford systematically organized one hundred and twenty "factors of intellect" into a three-dimensional matrix based on contents of thinking,
operations performed on contents, and products of thinking. Guilford's research outlined some specific perceptual and cognitive traits related to creativity, these being: sensitivity to problems, fluency in thinking, flexibility in thinking, originality, elaboration and the ability to re-define or reorganize what we know or see in new ways.9

Some recent discoveries (Garrett, 1976) in regard to left and right hemispheric specialization in the human brain also have implications for understanding creative behavior. These discoveries emphasize the relationship between creative behavior and integration of both left and right hemispheric modes of information processing. According to this theory, it is important to involve both hemispheres of the brain in a learning experience, both the left brain's analytic, verbal, rational, linear mode, as well as the right brain's spatial, non-verbal, synthetic, intuitive and imagistic mode.10

All these areas of research and discovery have touched upon various component factors of creative behavior, but the educator interested in practical application of strategies to awaken creativity in children seeks a more comprehensive model, a synthesis of keys to understanding and unlocking creative potential.

The Creative Behavior Model offered by R.D. Klein provides such a synthesis, in that it takes into consideration
the factors of the creative personality, process, product and environment, and recognizes the cognitive aspect of creative behavior as one of a number of creative developmental skills. Creative behavior, according to Klein, includes ways of perceiving, feeling and acting, as well as thinking. This model seems extremely relevant to educators, if our goal is to encourage children not only to think creatively, but to perceive and feel in creative ways and to have the courage to bring their ideas into action.

Klein sees creative behavior as "the exhibition of creative traits in everyday life - behavior that tends toward openness and growth and going beyond one's boundaries toward newness and uniqueness." When one exhibits creative behavior, Klein says, "one increases one's behavioral boundaries and one's response repertoire."

In his model of creative behavior, Klein draws from the Guilford tradition in constructing a three-dimensional matrix, the first dimension being a number of developmental skills (contents) related to creativity. These skills relate and correspond to research conclusions of personality theorists like Barron and MacKinnon, and humanistic psychologists like Rogers and Maslow on the personality traits of creative individuals. The first developmental skill Klein describes is Perceiving Skill or the process of sharpening one's powers of multi-sensory observation. The second skill mentioned as important to the development of creative be-
Behavior is Intellecting or cognitive skill, which refers to many of the mental abilities which Guilford found related to creativity - divergent as well as convergent thinking, analysis and synthesis, inferring, finding patterns, generalizing, evaluating, etc. The third skill presented in Klein's model is Affecting Skill, a skill related to forming feelings from developed perceptions, empathizing and valuing. Responding Skill is the last skill presented, and this refers to the ability to take action in one's social and physical environment in ways that tend to increase one's behavioral boundaries.

Klein recognizes that each of these content skills, Perceiving, Intellecting, Affecting and Responding may be expressed through four distinct Modes: a Subconscious mode, an Imagistic or Symbolic mode, a Cognitive or Semantic mode, or an Actualizing or Behavioral mode. These four modes compose the model's second dimension, which incorporates the idea of right-hemispheric brain processing through the use of the imagistic mode, and also validates the subconscious modes of receiving ideas as supported by the depth-psychologists. Klein's model makes use of a number of well-known theoretical constructs, but is original in the sense that it reveals an important element of truth: that any one of the content skills may be practiced through any one or more of the given modes. For example, one may ex-
perience a feeling subconsciously, one may think about a feeling experience or one may act on the basis of a feeling. These skills in combination may be compared to the process of breathing in the human body - the inhalation, the pause, the exhalation. Perceiving skills can be seen as drawing information into the person, intellecting and affecting skills integrate the new information into what is already known or felt, and responding skills act upon the surrounding environment.  

Klein draws from other important research on creativity in the third and final dimension of his model. To complete the matrix he again borrows from Guilford's work in stating four distinct process "qualities" through which skill contents may be judged as creative. These process qualities can be recognized as Guilford's fluency, flexibility, originality, and elaboration mental ability traits, but in Klein's model these qualities are not only applied to the cognitive domain, but also to the domains of perception, feeling and responding. Klein's assumption here, which is supported by a good amount of literature on creative behavior, is that a person who behaves creatively not only tends to think with fluency, flexibility, originality and elaboration, but also perceives in these ways, has emotional experiences that incorporate these qualities, and often acts with such qualities to produce results in their field that possess
these qualities. The four diagrams on the following pages show Klein's three-dimensional matrix (Figure 1), the relationships between \textit{Content skills} and \textit{Modes of Experience} (Table 1), the relationships between \textit{Content skills} and \textit{Process Qualities} (Table 2) and a description of methods for developing the four \textit{Content skills} on multi-modal levels (Table 3).

Klein believes it is possible for teachers to increase the creative behavior of their students, and he says that the best way is for "teachers to become familiar with the Contents, Processes and Modes of Creative Behavior in order to develop exercises that utilize these skills".\textsuperscript{14}

Creative Behavior then, based on Klein's model, is a process of opening oneself to the whole of one's experience with the outside world and one's own inner world, and having the courage to make transformations on the basis of one's experience in both realms.

Exploration of the meaning of creative behavior by other researchers, teachers, artists and psychologists has resulted in many of the same kinds of definitions. According to E.P. Torrance, "a major requirement for creative behavior is the capacity to wonder, to be puzzled, to see gaps in knowledge and to respond constructively".\textsuperscript{15} Torrance's view recalls the idea of openness to experience, linking it with the creative process, and emphasizes the importance of response...
Figure 1. Klein Model of Creative Behavior

Table 1. Matrix of Contents and Modes

<table>
<thead>
<tr>
<th>Contents</th>
<th>Subconscious</th>
<th>Imagistic</th>
<th>Cognitive</th>
<th>Actualizing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceiving</td>
<td>Intuitive, ESP</td>
<td>Automatic sense perception</td>
<td>Cognitive</td>
<td>Polysemantism</td>
</tr>
<tr>
<td>Affecting</td>
<td>Declarative</td>
<td>Empathy</td>
<td>Perception</td>
<td>Risk taking, curiosity, exploitation</td>
</tr>
<tr>
<td>Interacting</td>
<td>Figural</td>
<td>Symbolic</td>
<td>Emotion</td>
<td>Behavioral</td>
</tr>
<tr>
<td>Responding</td>
<td>Empathetic response</td>
<td>Receiving</td>
<td>Feeling</td>
<td>Initiating</td>
</tr>
</tbody>
</table>
Table 2. Matrix of Contents and Processes

<table>
<thead>
<tr>
<th>Contents</th>
<th>Therapy</th>
<th>Flexibility</th>
<th>Elaboration</th>
<th>Originality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceiving</td>
<td>To perceive using many waves</td>
<td>To perceive through different modes of abstractions, isolation, detachment, empathy, autonym,</td>
<td>To perceive things that are or seem not even close to being familiar, unknowable.</td>
<td>To perceive things that are or seem not even close to being familiar, unknowable.</td>
</tr>
<tr>
<td>Affecting</td>
<td>To have a large repertoire of expressible feelings</td>
<td>To feel emotions as they arise, being present to the world around you</td>
<td>To discern among feelings and to develop a full range of expression</td>
<td>To experience only what we are feeling, not being externally motivated, developing a full range of imagination</td>
</tr>
<tr>
<td>Intensifying</td>
<td>To think quickly and in quantity, generating a large number of ideas or possibilities</td>
<td>To think in different modes, identifying different categories and mindsets</td>
<td>To think in detail, analyzing, synthesizing, adapting, second-guessing, etc.</td>
<td>To think in new, unique, abstract, unusual terms</td>
</tr>
<tr>
<td>Responding</td>
<td>To respond to situations spontaneously, genuinely, and honestly</td>
<td>To respond in many ways, including your repertoire of responses, taking risks, trying the unknown</td>
<td>To respond thoughtfully and in detail, encouraging curiosity</td>
<td>To respond in quick ways, encouraging divergent behavior</td>
</tr>
</tbody>
</table>

Table 3. Skills related to Creativity
Long time teacher in the field of Creative Behavior, Doris Shallcross, also recognizes the importance of valuing one's inner experience. Shallcross says, "Creative behavior is respecting oneself as a source of learning and experience as much as external sources."¹⁶

In this quote from "The Creative Attitude", Abraham Maslow shares his perspective on the importance of acknowledging the non-conscious or subconscious elements of the creative experience; "part of the process of integration of the person is the recovery of the unconscious and preconscious (the poetic, metaphoric, mystic, primitive, archaic, childlike self). Our conscious intellect is too exclusively analytic, rational, numerical, atomistic, conceptual and misses a great deal of reality, especially within ourselves."¹⁷

Ribot's Essay on Creative Imagination (1906) points out the necessity for the involvement of the whole person in the creative process when he says: "The Creative Act involves the totality of the individual, the condition of his body, his emotions, his perception and his conscious as well as unconscious mental processes, including dreams. All creation implies a unifying, synthetic principle."¹⁸

These quotes put forth a powerful message - that the whole of creative behavior can't be explained by factors in isolation such as personality traits, a stage by stage analysis, the specific qualities that make a work of art
"great", the messages of the unconscious, or lists of precise mental abilities. Some way of integrating these separate factors must be found so that the educator concerned with promoting creative behavior in students can make use of this information in practical, classroom-oriented ways. Based on its comprehensiveness, its foundation in a composite of theoretical perspectives and its description of specific developmental skills related to creative behavior, the Klein model will be used as a major reference in this thesis exploration of the Waldorf School's approach to awakening creative behavior in children.

In contrast to the idea that the capacity for creative behavior is genetically determined, this thesis assumes that a climate conducive to promoting creative behavior in terms of perceiving, intellect ing, affecting and responding, can in fact be established in a number of ways. The purpose of this thesis, then, is to describe a number of powerful ideas and methods which Waldorf Education offers to awaken creative behavior in children.
In order to gain a clear understanding of Waldorf School ideas and methods that work to encourage creative behavior in children, it is essential to first examine some of the philosophical foundations and the psychology of child development on which Waldorf Education is based. Artist and poet M.C. Richards describes her first impressions of a Waldorf School:

the school had a grounding, a point of view, a form that proceeded from the essence of the developing human being in the context of nature and the universe. It described the life cycle of the human being, connecting the physical changes of the growing person to ways of being and learning, and then to curriculum and methods. 19

Steiner Philosophy: History and Context

The first Waldorf School was opened in Germany in 1919 by Rudolf Steiner, an Austrian-born scientist, artist, farmer, educator and visionary esteemed for his determination to re-unify science, art and spirituality in the Twentieth
Century. At first, his ideas were misunderstood and openly rejected by prominent artists and scientists of Germany at the time. Steiner worked for years to translate what he knew intuitively and on the basis of his own personal experience into clear, concrete language in order to formulate a written theory of knowledge which he published first as a Doctoral Thesis and later as a book called *The Philosophy of Freedom*. The work Steiner did to support himself while getting his science degrees at Vienna Technical University consisted primarily of extensive private tutoring of children with a wide variety of learning problems. It was this teaching experience that contributed to Steiner's practical knowledge in the field of education.

Eventually, Steiner was approached by teachers, doctors, farmers, scientists and artists seeking renewal in their life work. In 1919, Steiner was asked to design a school system for the children of the employees of the Waldorf-Astoria Cigarette Factory in Stuttgart, Germany. A few years later, the school was closed down by the Nazi Party which was threatened by the Waldorf School's plan to foster inner-independence and self-initiative in children. In 1945, the Waldorf School re-opened, and today these schools may be found in countries across the world, each school retaining its own administrative independence, but all
based on outlines and suggestions by Rudolf Steiner. Strangely enough, the system of Waldorf Education still remains relatively unknown to many specialists in the field of education.

One of the first features which characterizes the Waldorf Schools is that the individuals involved—teachers, parents, volunteers—seem to share a certain common view of the world, nature and the role of the human being and many of these individuals are open to sharing information about their own commitment to these values. This commitment brings with it a refreshing sense of integration and awareness about the purpose of education and the role of the teacher.

Perhaps one of the most important and elemental values underlying the Steiner model is that education is considered an "art" in the true sense of the word. Steiner wished to see the entire process of education, the very teaching itself, become artistic, which is not to say that Waldorf Schools are art schools. Rather, Steiner hoped that the artistic method would "penetrate the form and substance of every lesson." 20 According to Waldorf teacher Henry Barnes, in his Introduction to Waldorf Education:

the approach of the artist is to perceive, wonder, and question, only conceptualizing at the end. So a child, in learning, should proceed from the experience of the whole, from the unity of perception and experience through wonder, excitement, delight, repulsion to the idea inherent in the thing itself, which he grasps at his particular level of cognition. 21
So this process of proceeding from the whole to the part, from action to knowledge, from global presentation to specific focus, from experience to concept is characteristic of the "artistic method" that Steiner hoped would permeate all learning experiences. Therefore, when we speak of learning in Steiner's sense, we mean digesting concepts into which one's whole experience has been absorbed. When one really learns, one comes to meet a concept on more than one level— to observe it, to feel its texture and contours, its pain or joy, to hear it in relationship to sounds around it, to smell its depths, to taste its contrasts and to assimilate it into one's picture of the world. As Sara Lawrence Lightfoot remarks in her book, *Beyond Bias*:

> it is critical that individuals have the structures to accommodate new knowledge, rather than merely the skills to perform new tasks. Teaching means creating situations where structures can be discovered— not transmitting structures which may be assimilated at nothing other than a verbal level. 22

It is important to note that Steiner did not intend that the original model of the Waldorf School be mass-produced around the world, but rather that an approach to education be developed which could nourish schools everywhere. In addition to the valuing of the artistic method as a model for the living educational process, another important aim of the Steiner approach was to
found an educational scheme with a solid basis in a detailed understanding of child development. Rudolf Steiner was a visionary in that he spoke out of his own direct, creative, intuitive, and spiritual experience about child development and ways that the child needs to be nurtured at each stage of growth. The Waldorf School curriculum and methods revolve around Steiner's outline of child development, which in many ways parallels the work of other philosophers and developmental psychologists.

**Stages of Child Development According to Steiner In Relation to Other Theories**

To make sense of the basic foundation of Waldorf School philosophy, the first three stages of human development, according to the work of Rudolf Steiner, will be outlined.

In Steiner's view, the human being cannot be fully understood in terms of hereditary or environmental influences. Beyond these, Steiner felt, is the essential core or spirit of human individuality which cannot be defined in material terms. This core of individuality, as Steiner experienced it, enters life gradually, in seven year stages, during each of which the human being lives in a different kind of relationship with himself and the
Based on this view of development, the process of education must differ significantly from stage to stage.

It is interesting that the early Greeks' concern with the nature of human development revealed a similar division of developmental stages. Aristotle (384-322 B.C.) for example, divided the human growth period into three distinguishable stages of seven years each. Modern child psychologists like Jean Piaget, Jerome Bruner and Erik Erikson have also observed developmental changes in children along similar time intervals. Steiner believed in child-centered education that emphasized the physical as well as the psychological, the affective as well as the cognitive and motoric modes of expression, based on the idea that when the child is ready, the curriculum should change. Arnold Gesell's more recent theory of child development parallels Steiner's in the assertion that: "maturation is an internal, ripening process and that successful learning cannot take place until the maturational level appropriate for that kind of learning is reached." According to Steiner's theory, from the time of a child's birth up until the "change of teeth" which occurs about age seven, the physical body is forming its organs and the external physical and social environment is of crucial importance. The child experiences himself as
"inwardly and outwardly united with all that happens around him", as "wholly a sense organ". Here, the environment of behavior that surrounds the child is as crucial as the surrounding colors, shapes, smells, and sounds. This view holds that the child's inner being at this stage imitates its surroundings, and Steiner asserts that any attempt to appeal to the intellect of the child in these early years is to draw "forces" away from the necessary formative work going on within the body. In the words of a Waldorf teacher, "the child at this stage is physically receptive and all the impressions that it receives work right down into its organism, laying the groundwork for health and illness in later life."

Therefore in the Waldorf kindergarten, no attempt is made to teach the child to think critically or analytically, or, to use Klein's term, to engage in "conscious intellecting". It is necessary to define intellecting as it is meant here. In this sense, intellecting is a rather specific, conscious mental process which includes logical formulations of concept relationships, abstract pattern-finding and use of analytic reasoning to solve problems. In Waldorf Education the mental processes of the child are recognized and respected as being quite different from those of an adult. In Steiner's terms, it is incorrect to assume that when a young child asks a certain question like "Why does the sun
shine?" that the child seeks a rational, scientific explanation. This view upholds the idea that one makes more progress with the child by appealing to imagination and fantasy than by logical argument or reasoning. On this basis, the effort of the kindergarten teacher is expended instead, on creating an environment "worthy of the child's unquestioning imitation", in which the child can be active in meaningful ways. The children play house, build, paint and model with very simple toys and tools that leave plenty of room for imagination. The children also learn to knit and practice the recorder while their play is gradually transformed into a joyful feeling for work. The rhythm and order of the day is a very important feature of Waldorf Education. The teacher shakes each child's hand in the morning upon entering the classroom, there is seen to be a balance of activity periods and quiet periods during the course of the day. The qualities of gratitude, wonder and reverence are modelled for the children's sake.

The view about the relationship between the very young child and his world which Dr. Steiner described, has been echoed by other scientific observations. In the words of Plato's Republic (427-347 B.C.), Plato states: "the reasoning in the child is undeveloped, but since the young child is impressionable and anything he receives into his mind is likely to become indelible ... the talks which the
young hear should be models of virtuous thoughts". 27

Child psychologist Jean Piaget (1952) speaks of the stage in a child's life from birth to seven years as a "sensori-motor" and "pre-operational" stage when the child relies mostly on sense perception and intuition in understanding the world. 28 Likewise, the developmental theory of Jerome Bruner (1966) labels this same stage the "enactive" stage, where the primary mode of representing knowledge is through the body, through motor acts, so that the experience is absorbed into and understood by the body, in a sense. 29

Dr. Rudolf Steiner also connects the thoroughness with which the child is allowed to experience each stage of growth with the child's ability to integrate himself constructively into the larger society at a later stage. For example, Steiner explained that the child who does not imitate thoroughly in the first seven years would not later be able to develop an adequate capacity for freedom as an adult. One Waldorf educator, John Davy, makes a connection between this "capacity for freedom" to which Steiner refers, and the capacity to exhibit creative behavior. Davy says: "As adults, we need inner and outer freedom for effective expression of our creativity. We cannot be creative if we are excessively burdened with inner hangups and inhibitions." 30 So, in a sense, to
imitate, or play one's way into knowledge, is the first step in establishing confidence and strength as a being of creative action in the world. In his book, *Play, Dreams and Imitation in Childhood*, Jean Piaget agrees that "symbolic play can be a source of creative imagination."  

The transformational process into the second major stage of a child's development is very easy to observe, according to Steiner. This stage begins around the time of the "change of teeth" and extends until puberty, and Steiner noticed that at this stage, the physical movements of the child become more rhythmical, graceful and balanced and children become absorbed in asking questions that shows their need for a "feeling-understanding" of the world. "At this time, the child's thought is not naturally critical and analytic, but pictorial and dramatic." In this stage of the child's development, Steiner encouraged teachers to teach through mythical symbolism, storytelling and pictorial imagery, bringing into the classroom as much music, color and poetry as possible. Jerome Bruner calls this stage of representing knowledge "iconic", where children make use of images or pictures to represent information. In the Waldorf School, children learn to write at this stage, using the same process as early humans used in the historical development of writing. They move from the drawing of pictograms to the shapes and forms of our present alphabet.
Another especially important feature of the life of the child at this second stage is the need for an authority figure worthy of respect and trust. Longtime Waldorf School teacher Roy Wilkinson, in his book *Commonsense Schooling*, says: "the child wants to believe in the wisdom of an adult and instinctively demands authority." This genuine authoritative presence was defined by M.C. Richards as "an ability to create something that other people can follow without danger to themselves - our authority is our creativity - that special quality of uniqueness that we offer". Steiner saw the relationship between the child and the teacher as very precious, and tied to relationship to the development of one's own inner authority - "to know what it is to be a good friend to ourselves and to others and to be a truthful observer". The reference to being a "truthful observer" is important here, that the teacher not be false in order to have an effect upon the child, but become attuned to the ways of giving whole, balanced and honest feedback to the child from a place of love.

At this point it seems relevant to note that it appears as if Steiner's methods are designed specifically not to make a conscious influence on the child's intellect in the early years. The assumption that underlies this is that there are other powerful ways to develop the intellect of the child besides the conscious and direct approach of appealing to the child's reasoning or presenting problems to
the child in order to get him to think. In Steiner's theory, the child needs to be viewed as what he is—a feeling, willing(active) and thinking being, in which no quality should be left under-developed and no one quality mistaken for the whole capacity of the child. Steiner addressed this question directly in one of his lectures to teachers of the Waldorf School in 1920:

When one knows that our intellect is not developed by the direct approach, that is by cultivation of intellectual pursuits themselves, but one knows rather that a person who is unskilled in the movement of his fingers will also be unskillful in his intellect, having less mobile ideas and thoughts, and that he who has acquired dexterity in the movements of his fingers has also mobile thoughts and ideas and can penetrate into the essence of things, one will not undervalue what is meant by developing the 'outer' human being. Out of the whole treatment of the outer human being, the intellect shall arise as one part of the human being.

In Steiner's terms, there are many ways to "know" something. In other lectures of his, Steiner equates feeling with "receiving into one's soul" and sees these as ways of learning and knowing. Psychologist Carl Jung also said that feeling was a way of knowing; it can be seen as the experience of valuing. The point of view that is carried forth into the practice of Waldorf Education is that there are more ways of coming to understand a concept than through the intellect. The Waldorf School makes a commitment to giving children access to all their potential ways of knowing.
The third stage of child development described by Steiner begins at puberty and reaches into adulthood (ages 14-21). According to Steiner, as the child nears puberty, the power of conscious intellect develops along with the physical body. The adolescent asks more "how" and "why" questions and is more capable of understanding cause and effect relationships. Individual powers of perception and judgement, the process of questioning authority and contradicting are emerging. At this time, the inner core of the individual or the soul in Steiner's terms, has become more fully incarnated, and out of this develops the adult capacity for detachment and understanding another person's point of view, clear observation and objective thought. It is also believed that the artistic experience which develops the feeling capacity in a person should continue to be integrated into classroom activities at this stage. Work in the arts and crafts right up until the age of eighteen and beyond was emphasized by Steiner as a way of integrating a turbulent life of feeling and will with an awakening critical intellect. This idea of an awakening capacity for critical thinking at an abstract level was also observed by Piaget, who calls it the cognitive stage of "formal operations". This stage is characterized by an ability to reason not only about concrete objects, but on the basis of abstract verbal propositions.
Waldorf teacher Henry Barnes describes the transformation of the learning process in the child from stage to stage:

the intelligence, which first worked in an instinctive way, experiencing the world by identifying with it through imitation, and then metamorphosed into the dream-like, imaginative consciousness of the middle years, at puberty awakes in its own right as intellectual power.

Steiner says that the adolescent's relationship toward authority changes at this point in time as well, and a teacher's respect must be won, not unquestioningly, but through the integrity and conviction of the teacher's personality and teaching skill. The curriculum is still balanced, with the academic subjects being taught in the morning, movement arts and handwork practiced in the afternoon. Many of the subjects that were studied in the lower grades from a pictoral and story approach are presented again in the high school so they can be re-experienced more consciously, more analytically. This is known as the "Spiral Curriculum", and within it the arts are integrated into the main subject areas. For example, painting, modelling and design and string constructions are taught as part of mathematics lessons, sculpture and creative dramatics as part of the history lesson. In speaking about the age of puberty, Steiner reminds us that "the time has arrived when the human being is ripe for the formation of his own judgements about the things he has already learned. The thought must take living hold in the child's mind that he has first
to learn and then to judge". 39

It is important to realize that in the Waldorf School, the stage of development of the child is used as the foundation for teaching, and everything else is built upon that. (See Table 4 for a Summary of Steiner's Stages of Child Development) The philosophy is not that the child should be given exercises or tasks in order to spur him on to the next stage of development, not "the faster the better", but rather that the child should be allowed to immerse himself in the activities appropriate to his present stage, and through this itself, the child will be readied to move onto the next stage of development. For example, reading is not taught in the First Grade at the Waldorf School, rather writing is taught before reading, the way it developed historically. Time in the First Grade is devoted to painting and drawing of letters and numbers and exploration of the imaginative world of the child. It is also necessary to note that an external grading system is not a part of the Waldorf School until the upper grades, although parent-teacher meetings are held for purposes of discussing students' progress. It is believed that external evaluation too soon impedes, rather than promotes healthy, creative development of the child. Rather than being judged against external standards or pushed forward in tasks for the purpose of cognitive growth, Steiner would have a child
<table>
<thead>
<tr>
<th>Age</th>
<th>Nature of the Child</th>
<th>Inner Urge</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 - 6</td>
<td>wholly sense organ - very sensitive to and dependent upon environment</td>
<td>imitation</td>
</tr>
<tr>
<td></td>
<td>physical movements become more balanced, graceful</td>
<td>will activity</td>
</tr>
<tr>
<td></td>
<td>understands the world via feelings and pictorial imagery, fantasy</td>
<td>(motor coordination)</td>
</tr>
<tr>
<td>7</td>
<td>starting to become more aware of self, develop interest in outside environment</td>
<td>desire to learn</td>
</tr>
<tr>
<td></td>
<td></td>
<td>need for authority</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>figure to respect and trust</td>
</tr>
<tr>
<td>12</td>
<td>skeletal development; movements again become angular and awkward</td>
<td>developing &quot;feeling&quot; capacity</td>
</tr>
<tr>
<td></td>
<td>questions relationship of self and world; gaining ability to grasp cause and effect</td>
<td>Questions: How and Why?</td>
</tr>
<tr>
<td>14 - Adulthood</td>
<td>Physical maturity; development of world interests; individual perceptions and</td>
<td>thinking, arguing, reasoning, questioning authority, independence,</td>
</tr>
<tr>
<td></td>
<td>judgement; ability to practice detachment, to see point of view of the other;</td>
<td>need to observe and discover, need to be guided by reason and integrity.</td>
</tr>
<tr>
<td></td>
<td>development of critical intellect</td>
<td></td>
</tr>
<tr>
<td></td>
<td>increasing consciousness of self as separate from external environment</td>
<td></td>
</tr>
</tbody>
</table>
"simmer in his own juices" awhile, in order to develop strengths for a lifetime. The belief underlying this structure is first, that nature provides growth and change that needs no prodding by us, and second, that if you teach the human being the proper things, in the proper way, when the time is ripe, you are in effect, making provision for the whole of that individual's life.

Qualities of Balance and Rhythm

Another very essential element of the Waldorf School philosophy is the value placed on the qualities of balance and rhythm in the life of the individual, the school curriculum, the school day and the calendar of the school year.

In Waldorf Schools there is a rhythm of the day which reflects the three-fold nature of the human being, hands, head and heart, as well as the needs of a particular age group. There is also a rhythm of the school year, through the sequence of subjects and the seasonal festivals, with a repitition of themes and practices. Thirdly, there is a rhythm to the whole curriculum as it unfolds and spirals over itself. 40

An explanation of the usual daily schedule of a Waldorf School may help to clarify what is meant by the qualities of balance and rhythm. (See Tables 5, 6 and 7 on Waldorf School Weekly Time-Tables) A two-hour Main Lesson usually begins the day, allowing children the time to become absorbed in a
### Table 5. Waldorf School Weekly Timetable - Grade 5

<table>
<thead>
<tr>
<th>Time</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>Th</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00-9:45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:45-10:15</td>
<td>MAIN LESSON</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:15-10:55</td>
<td>R E C E S S</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:55-11:20</td>
<td>German</td>
<td>French</td>
<td>Math</td>
<td>Singing</td>
<td>Folk Dancing</td>
</tr>
<tr>
<td>11:20-11:55</td>
<td>English</td>
<td>Math</td>
<td>French</td>
<td>Form Drawing</td>
<td>Woodworking</td>
</tr>
<tr>
<td>11:55-12:15</td>
<td>Music</td>
<td>Eurythmy</td>
<td>Reading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:15-12:45</td>
<td>L U N C H</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:45-1:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:00-1:40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:40-2:20</td>
<td>Gym</td>
<td>PAINTING</td>
<td>Gym</td>
<td>English</td>
<td>German</td>
</tr>
<tr>
<td></td>
<td>Handwork</td>
<td></td>
<td>Handwork</td>
<td>Gymnastics</td>
<td>Handwork</td>
</tr>
</tbody>
</table>

Table 6. Waldorf High School Weekly Timetable

<table>
<thead>
<tr>
<th>Time</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>Th</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:45-7:55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:55-8:15</td>
<td>Wake-Up, Breakfast, Clean-up</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:15-9:15</td>
<td>Roll-call, Morning Meeting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:15-10:45</td>
<td>* BLOCK CLASS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:30-12:15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:15-1:15</td>
<td>L U N C H</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:15-2:05</td>
<td>Academic Classes, Arts, Crafts, Phys. Ed.</td>
<td>Clean-Up and Assembly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:05-2:55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:55-3:45</td>
<td>Work Crew, Sports, Gardening, Extra Studio, Free Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:45-4:00</td>
<td>S U P P E R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:00-4:45</td>
<td>S T U D Y H A L L</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:00-5:30</td>
<td>In - Dorms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* (see Block Schedule on next page)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 7. Sample Block Schedule - Grades 9-12

<table>
<thead>
<tr>
<th>Grade</th>
<th>Fall Term</th>
<th>Winter Term</th>
<th>Spring Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Modern Database, Geometry</td>
<td>Descriptive Myths, Chemistry</td>
<td>Art History, Physics, Comedy and Tragedy, Algebra, Physiology, Modern History</td>
</tr>
<tr>
<td>10</td>
<td>Oceanography, History</td>
<td>Drama, Physics, History of Language, Algebra, Embryology, Chemistry, Bible, Geometry (Surveying)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Medieval History through Art, Physics</td>
<td>Dante - Chaucer, Projective Geometry, Astronomy, Shakespeare, Chemistry, Music History, Parchival, Botany</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Emerson, Zoology, Physics (Lighten)</td>
<td>Architecture, Russian Literature, Organic Chemistry, World History, Faust, Modern Art, Senior Play</td>
<td></td>
</tr>
</tbody>
</table>

Every 3-4 weeks students move to their next "Block" of study. They meet this "Block" class each day from 8:00 A.M. to 9:35 A.M.
single subject area, which is presented in "blocks" or concentrated periods of about four weeks. Main Lesson subjects include language arts and literature, arithmetic, history and geography, natural history and the natural sciences. One needs to be clear about the fact that although a student may be working in main lesson science, the subject of science is dealt with in a highly interdisciplinary fashion by the Waldorf teacher. Main lesson science includes practice in math, painting, history, music or movement exercises, for example. Dr. Rudolf Steiner himself advised against a uniformly "intellectual" day with recreation periods for relief. According to Steiner, recreational aspects should be integrated into the Main Lesson block of time and respected as crucial to the success of the learning climate. The Main Lesson enables each teacher to use a variety of methods and to develop multiple implications and applications of the main subject material, at the very time of day when feeling, understanding and enthusiasm are at their maximum.

Foreign language lessons, additional practice in English and arithmetic, music and eurythmy (a system of movements to poetic rhythm designed by Steiner) provide the activity in the middle lessons of the day, while subjects that fully engage the child's body (gymnastics, sculpture, instrumental music) are scheduled for later in the afternoon. The order of the day begins with
conscious intellectual focus (age-appropriate methods), followed by activities of a more routine nature that require practice but less active intellecting, and ending with physical activities.

Ideally, the teachers of both the Main Lesson subjects and all other special subjects try to incorporate elements of feeling, thinking and willing into each of their lessons, attempting to maintain a balance between these three aspects of the child. Developing the "will" is related to practicing again and again some concentrative activity which one finds difficult. Thoroughness, responsibility and self-discipline are said to follow from training the will. The assumption here, based on Steiner's advice to teachers, is that children have an inner need for order and rhythmical activity as part of their day, and that a balanced exercising of the heart, head and hands of the child creates a healthy sequence that provides for more active concentration and gives each day a rhythmic shape.

In his book, The Experience of Knowledge, John Fentress Gardner explains the importance of this balance:

Ordinarily the knowledge with which education confronts a child consists of facts that are to be observed and ideas that are to be thought. Such observations and thoughts are certainly using a part of the human capacity for experience, but not the larger part. They leave out both the feeling and the active sides of a child's nature.
In addition to the effort to balance the curriculum activities and the schedule of the school day, the principle of balance extends even into the relationship between teacher and student, and the work assigned students according to their individual needs. In the Waldorf School it is the teacher's responsibility to see that each child discovers a balance in his own skill development and his own inner nature. At the right time, a child who is particularly imaginative and very successful in the arts, will be encouraged to put more time toward developing the logical, linear part of his nature, assuming this needs work. The child who, on the other hand, feels very at home in the intellectual sphere, will be encouraged to take risks with knitting, watercolor painting and dramatics, in order to bring out the element of feeling.

Steiner's work discusses the role of individual differences and learning styles and emphasizes the crucial aspect of the teacher's awareness of the "temperaments" of the children. Steiner linked his description, in part, with the traditional Greek and Medieval classification of Temperaments, and maintained that the temperament of a human being has a physiological basis. "The temperament is more than a matter of the psyche, it penetrates into the physical constitution as well. It is to be recognized in build and gait and complexion, it affects health and disease." The diagram (Figure 2) that follows shows the
Figure 2. The Four Temperaments and the Corresponding Seasons, Elements and Colors
Four Temperament Qualities as outlined by Steiner, and their corresponding seasons, elements and colors. This system corresponds to the Chinese Five-Element Theory which forms the foundation for diagnosis and treatment of illness in traditional Oriental Medicine, and also shows similarities to the basic element (fire, air, water, earth) theory as presented in Astrological Natal Birth Chart Construction. Steiner's idea, as it applies to education, is that human beings are generally of mixed, rather than pure temperament, yet at times there may be a preponderance of one element or another. The object is not to change a child's temperament, but to work with it, to strengthen its positive aspects and harmonize its extremes. The ideal goal here is that the mature adult will be free of the control of his temperament and be able to use the qualities of all the temperaments when the situation calls for it.

Steiner suggested as a classroom technique, that students of similar temperaments be seated together, so that they will, in effect, become mirrors of one another's personality. By being surrounded by "themselves" in a sense, the children are helped to seek opposite qualities in themselves and so balance the extremes. For example, it is often the case when children work in groups with a given task, that those with the more active or dominant
temperament (choleric, for example) will take up the organizing. Children with more "phlegmatic" tendencies will sit back and wait to be assigned a task or allow others to take control. Steiner's idea is that by seating children of a similar temperament together, a compromise will have to be made within each child and among all the children. A "leader" type child will have to develop patience, cooperation and the ability to follow as well as lead. Among the more passive children, some will be called upon to find the leadership and organizational qualities within themselves.

As Steiner said, even in teaching a certain subject, some aspects of the subject will appeal to certain temperaments more than others, and that the Waldorf teacher should strive to strike a balance of these.

In Waldorf Education, not only is it important to maintain balance in the school's external structure of activities, but also to work toward encouraging the children to find a balance in their inner selves.

The temporal organization of the Waldorf School's curriculum, daily schedule and calendric year also reinforces the principles of balance and rhythm. The sense of time in the Waldorf School feels very different from that experienced in a public school setting. There is a sense of time passing more slowly, of each moment being noticed more, even in classes where children are
bursting with energy. Teachers take the time each day to arrange some kind of group concentration or "centering" exercise to begin the day. Before the children even arrive, the teachers share a verse or song amongst themselves. Each teacher then goes off to greet his class, and they too share music or recite a verse together, with a message that affirms the positiveness of spending a day together in work and in play. Often, music is the medium or signal used for shifting moods from one activity to another in the course of the school day. The unhurried nature of things, the special efforts that take extra time, the hours that teachers spend coordinating lessons, seem to affect the quality of time in general at the Waldorf School.

In the scope of calendric time, the classes of the Waldorf School celebrate the changing of the seasons together with festivals and plays. These celebrations give each part of the year a special significance to which the children look forward again and again.

The Block System of studying a certain main lesson subject in four-week time intervals is another example of the Waldorf School's approach to time. The Block System allows for concentration and exploration of a subject in depth (two-hours each morning for four weeks) and the purposeful four week lapses between different main lesson subjects are arranged to allow forgetting
to occur until the old material is brought up again in new combinations. Many Waldorf Educators speak about the "value of forgetting" contrary to many public school educators who seem to be frustrated by students' inability to recall information. Steiner explained that when a person forgets a certain piece of information, the information may fade out of consciousness, but not out of existence. It becomes unconscious, but not therefore, inactive. According to Steiner, the really plastic, formative, character building role of our conceptions actually just begins when these conceptions sink from the light of the ordinary mind down into the shadowy depths. Behind or below consciousness, these conceptions live out their formative impulse within our emotional and physiological being.

Steiner's idea parallels the more recent work being done in the field of "accelerated learning" where it is understood that human beings have strong learning capabilities and "vast reserve capacities which may be activated through means of tapping realms of unconscious mental activity." Depth-psychologists and other researchers, as mentioned in Chapter I, see establishing contact with the unconscious as necessary for creative production. George Seidel, author of The Crisis of Creativity, writes:

It is by way of forgetting that a good deal of the material held in the unconscious mind comes to be
there... forgetting is even more important to creativity than remembering - even a person's ability to forget in his field of interest is as important as his ability to remember. 47

In this way, the Waldorf School's approach to time allows for and even accepts "forgetting" as a necessary and even desirable part of the learning process.

**Sense of Continuity**

In addition to valuing the qualities of rhythm and balance, a sense of continuity is seen as an integral part of the healthy development of the child. The value placed on continuity in the Waldorf tradition seems to highlight the transformational process of the child. One significant example of the school's commitment to continuity is the idea of the "continuing teacher". The Main Lesson teacher, as far as possible, remains with the same group of children, year after year, until the Eighth Grade, although a variety of special subject teachers also work with the children during the course of a day. According to Steiner, it is only after a year of working with a group of children that a teacher really begins to feel how to work with them as individuals, therefore, this feeling and knowledge should be developed, not discarded. It is said that this long term relationship between student and teacher contributes to the stability and security of the children in the early grades,
and meets the children's need for deep human contact. Although a number of arguments have been raised against the idea of the continuing teacher, such as the variety of experiences that having more than one teacher could supply, advocates of Steiner's approach believe that this system results not only in a more economical approach to teaching, but also a more motivated teaching staff who face new curriculum content each year.

Continuity is also reinforced by what the Waldorf School calls its "Spiral Curriculum". This is a curriculum in which students study subject content in repetition, but in very different ways at each stage of their development. Students are encouraged to keep an appreciation for feeling and imagination at all stages, but gradually the work becomes more abstract, and as the child nears puberty, the work is aimed at involving more of the child's conscious intellecting skills.

For example, geometry for the young child is first experienced through movement:

the first-grader runs the forms of a triangle, circle, square, pentagram in space. Keeping equal distance from the center at every point on the circumference of a circle requires willpower, attention and control, and it is the experience through the body that says 'circle' to the six-year old. 48

In the sixth and seventh grades, geometry is experienced on a new level, based on the children's need for imagery and color, and the development of the qualities of feeling
and will at this stage.

Exact and beautiful constructions are developed and drawn with colored pencils. What was experienced at form through the child's body is now experienced in the aesthetic sphere. There is great joy in the discovery and perfection of each new form.

After the child reaches puberty, in Steiner's outline of child development, the intelligence is beginning to awaken and there is more capability for abstract thinking and critical analysis.

Here, geometry is reborn in the encounter with the self-sustaining truth of geometric laws experienced as pure thought forms. What was experienced through the body as a perceptual whole, and re-experienced with artistic appreciation, resounds in the logical experience of the high school years.

In a similar way, the history/social studies curriculum accompanies the child as his consciousness gradually unfolds. Starting from the imaginative, imitative experience of the six and seven year olds, the children listen to and act out stories of the Old Testament and other carefully selected dramatic, pictoral myths, fables and legends from a variety of world cultures. The stories are often overflowing with characters who exhibit the virtuous, admirable qualities which the teachers wish the children to absorb and imitate.

Next is a transition from a mythological perception to an evolving sense of realism in the elementary middle years. The focus on the pictoral, the imagistic, the colorful and artistic is brought into a study of ancient cultures.
and how people lived and worked, culminating in Ancient Greece. Students also learn Geography in the middle grades, and their artistic work grows naturally out of map-making and the study of earth and its physical cultures.

As adolescence approaches, the students' studies move with them from Roman Civilization to Modern times. Here they uncover the major themes and trends like the Age of Great Discoveries and the Industrial Revolution. The curriculum attempts to track the inner and outer development of the students, as in the Eighth Grade when the time of revolution and the wars of independence are upon them. Biographies of great individuals are read and told in order to highlight major historical shifts, and plays are composed by students on the themes of discovery, change and struggle.

In the high school, the entire course of world history, from ancient to modern times, is studied once again in the spiral curriculum fashion. The second time through, however, more of the analytical, intellectual threads of history are woven into the pictoral, imagistic tapestry that has already been woven.

Through the spiral curriculum, the child experiences and re-experiences the subject content in hand, head and heart. The goal here is that the child fully absorb and digest the concept, finally making it his own. The continuity of having the same teacher for the first eight
years, and re-experiencing material on deeper and more complex levels helps these transformations to occur smoothly.

As one more source of continuity, each child keeps a class workbook, a thick artists drawing pad, which over the course of the year, he fills with drawings and notes. These workbooks are records in vivid color and imagery of students' inner experiences of their topics of study and their relationships to one another and to the teacher.

Continuity of subject material is also reinforced through the interdisciplinary nature of the Waldorf approach. As Steiner said in Practical Advice to Teachers: "Moving from one thing to another in a way that connects one thing with another is more beneficial than anything else for the development of spirit and soul and even of body." For example, the French teacher, Eurythmy teacher and Clay modelling teacher will work together to prepare lessons, and strive to connect their special subjects with whatever is being taught in the Main Lesson. In this way, the children may enjoy the inter-relatedness of the different subjects, make more connections and begin to see the separate subjects as parts of a larger whole. This approach would seem to ground the children's understanding of a concept in a wide variety of experiences.
Role of the Teacher

A final feature of Waldorf Educational philosophy which sets it apart from other philosophies of education is the emphasis placed on the Waldorf teacher's individual freedom in the classroom, sense of responsibility to students and to the school community, and his/her deep commitment to inner creative and spiritual growth.

Since Rudolf Steiner saw freedom as a basic condition for a creative, spiritual life, the faculty of the original Waldorf School were the administrators of the school, and in many Waldorf Schools today, this is still the case. The goal was that each teacher would have an enormous amount of freedom in the artistic realm - to approach the unfolding of the curriculum, the development of the school community and the children under his/her care in a highly individual way. Along with this freedom, of course, follows an equally enormous amount of responsibility. The Waldorf teachers need to meet together very often to support one another and make the necessary administrative decisions such as the hiring of new teachers, the development of school-wide policies and the upkeep of the school building. The teachers, individually and collectively are responsible to the children, their parents and to the organization and productivity of the school community as a whole.

Viewing teaching as a path of spiritual development
and a process of personal growth adds an entirely new dimension to the profession. The Waldorf teacher-training programs allow candidates to explore their own limitations and broaden their own "behavioral boundaries" through discussions of Steiner's philosophy, observation of nature, practice in music, painting, sculpture and movement exercises and attention to the group process. Teachers work on their own openness and process of transformation in hand, head and heart which they hope to model for the children. They try to continue in their practice of the arts while they teach, as a form of renewal and reintegration. " In order to affect their mobility of thinking and their individual creativity of will, the teachers practice the various arts of painting, music, eurythmy, poetry and whatever else they are inclined to practice. To affect their feeling life, they try to observe rhythms in their own in their own waking and sleeping, to work imaginatively in their class preparation, using stories, colors, sounds, movement and play." 52

The teacher in the Waldorf School has committed himself to a comprehensive process of education, integrated with a world view, not just to a short term period of instruction. In this form, teaching becomes a way of life, a means to life, and usually the teachers who enter a Waldorf Training Program and go on to work in Waldorf Schools are prepared for this. One teacher at the Lexington Waldorf School explained
that she had taught at many schools before "she finally found a place where she could breathe".

When Steiner selected the teachers to form the first Waldorf School in Germany, he was more interested in what kinds of qualities these people had as human beings, what constituted their view of the world, and what kinds of practical life experience they would bring to teaching, than in how much information they had stored up about their subject area. According to Dr. Steiner in Practical Advice to Teachers, there are four important qualities which the Waldorf teacher needs to consciously and continuously work toward developing in himself. First, Steiner says, the teacher must be a person of initiative in everything he does, great and small. An important part of this is trying to be aware of his own behavior, especially with the children, and to be watchful of his own balance of qualities, particularly the effects of any one-sidedness in his personality. Second, the teacher needs to be interested in the "being of the whole world and of humanity", a model of curiosity and concern, whether the issue is great or small. The third quality Steiner mentions is truthfulness—he urges that a teacher work on being true in the depths of his being, not making compromises with what is untrue. The last quality is that of newness or "aliveness". A teacher must never get stale or grow sour, and this can be done by "retaining the childlike element", or to use in an inner,
childlike way our thinking, feeling and willing. "We are a poet, and artist", Steiner says, "if we can always re-live in ourselves the activity of the child with our maturer humanity".  

The extent to which the teacher is free to create and make many decisions independently in the Waldorf School, reflects the amount of trust the Waldorf approach has in the integrity, creativity and inner sense of responsibility that such freedom fosters in the individual teacher. The Waldorf philosophy is that this trust and support set the teachers free to reach their highest potential. Since the inner-self of the teacher becomes the monitor, there is no particular need for external monitoring of teacher performance by the school. Of course, teachers are required to establish working relationships with children and parents, and if problems arise, the faculty acts as a support system. Waldorf teachers choose to teach in Waldorf Schools because they share a general sense of what is valuable, and build their work around a conviction that "each student is the bearer of an evolving human spirit with a past and future leading beyond birth and death". This is not to say that these values are discussed as part of the curriculum, but on the other hand, they are not hidden away, as is necessarily the case in public schools where teachers struggle to remain "value-free". Ideally, the parents who choose to send their children to a Waldorf
School are also familiar with the work of Rudolf Steiner and the basic value principles of the school. The parents' and teachers' commitment to a higher spiritual truth beyond their separate personalities allows for more willing support and compromise in the faculty decision-making process.

In the attempt to uncover the basic foundations of Waldorf educational philosophy, we have thus far examined Steiner's affirmation of education as an "art", the various stages of child development and their implications for education, the ways in which rhythm and balance weave themselves into the teaching process and curriculum, and the importance of continuity in content and skill areas, from lesson to lesson, year to year. We also explored the role of the Waldorf teacher: a strong commitment to teaching as a means of self-observation and spiritual development with the freedom and responsibility to create a learning environment that supports the growth of the whole human being and the school community.

This description is only a beginning, however, because such an analysis of major component ideals of Waldorf Education still does not provide an integrative sense of the whole, or capture the ways in which the intricacies of these components are woven together into a living, organic form of activity called the Waldorf School.

In Waldorf philosophy, the goal of education is to
develop "an inner stamina and flexibility that will allow children to approach and respond to life." Interestingly enough, many of the suggestions and goals of Rudolf Steiner and the strategies of Waldorf educators seem to coincide with more recent investigations and suggestions in the field of creativity. Teachers interested in encouraging creative behavior in their students, or in re-discovering their own inner child as a source of "alive-ness" in themselves, may look to the Waldorf Approach for suggestions, support and inspiration.
Chapter III

Waldorf Education: Awakening Creative Behavior in Four Developmental Skill Areas

Having surveyed the philosophical foundations and assumptions of Waldorf Education, we are now led to the question of how the Waldorf Approach works more specifically, to awaken creative behavior in the child. The word “awaken” is chosen deliberately here to make clear that in Waldorf Education the teacher works to be a participator in the process, a "sharer of reality" rather than a master controller of the creative process that occurs through them. There is a basic assumption that the creative powers lie waiting to be explored and developed in all of us.

Using Klein's outline of the Four Major Developmental Skills related to Creative Behavior (Perceiving, Intellec­ting, Affecting and Responding) as a reference, this chapter will explore the various ways in which the Waldorf Approach works consciously, systematically and holistically to develop creative behavior in children.

Developing the Skill of Perceiving

We may begin with the skill Klein mentions as Perceiving, or being aware of oneself and one's surroundings through the use of the senses. As E.P. Torrance states in his
The promotion of keen sensory awareness should be the goal of environments directed at promoting creativity. It has been discovered through research that creative persons demonstrate an unusual sensitivity to sounds, colors, textures, lines, tastes and smells and they possess an ability to image, using the senses in combination.

It is this kind of perceptual sensitivity and vividness that Klein encourages teachers to work to develop in their students. Klein emphasizes the importance of the development of intuition, tapping the "collective unconscious" as Carl Jung would say, the archtypal, psychic memories available to all of us. He mentions the significance also of developing fine sensory awareness and psycho-motor coordination, as parts of our perceptual ability. Klein describes qualities of perception that we should strive for: fluent perception, or perceiving much on many levels; flexible perception, or being able to discriminate between kinds of sensations; elaborate perception, or perceiving in much detail; and original perception, or paying close attention so as to perceive in ways that others may not readily be aware of. The skill of perceiving is believed to be so crucial a component of creative behavior because our ways of perceiving are in actuality the foundation of our subsequent thoughts, feelings and actions. Herbert E. Read, author of the classic...
text, *Education Through Art*, believes that the education of our perceptual senses is the education upon which "consciousness and ultimately the intelligence and judgement of the human individual are based."²⁵⁹

An indication of the depth of Waldorf philosophy in this realm of human perception is revealed by the detailed descriptions of the twelve senses of the human being by Rudolf Steiner. In his book, *The Study of Man*, Steiner devotes a chapter to the importance of understanding the role of the twelve senses in human development. These twelve senses include the well-known five senses of sight, hearing, smelling, touching and tasting, plus seven others which Steiner defines as less conspicuous, but equally as significant. (See Figure 3, Diagram of the Twelve Senses)

The less conspicuous senses include briefly, the sense of warmth, which Steiner distinguishes from the sense of touch, the sense of ego (self) by which a person differentiates himself from others, the sense of thought, by which a person perceives the thoughts of others besides himself, the sense of speech, the sense of balance, or the perception of one's relation to other objects in space, the sense of movement, whereby we can tell if we are at rest or in motion, and finally, the sense of life, or the perception of the overall condition of one's body, in other words "to know that's me." In the words of Steiner:

Since we have twelve senses, we have a fair number of
Figure 3. Diagram of the Twelve Senses

(Eileen M. Hutchins)
possibilities of uniting what is separate. What the ego-sense experiences we can connect with the other eleven senses, and that is true of each sense. Through the twelve senses, things are separated into their component parts ... from this you will understand how infinitely important it is that man should be so educated that one sense should be developed with the same care as another, for then the connections between senses, between perceptions will be sought quite consciously and systematically. 60

Waldorf teachers are trained to become aware of these twelve senses of the developing human being and to provide activities which involve the development of these senses at the right time for the growing child. The will or body senses are emphasized when working with children from four to seven years of age, because they process most of their experiences through the physical body. The feeling senses are appropriate to work with for students from seven to fourteen years, and the thinking senses for the adolescent and older. This is not to say however that practice in all the sense areas is not appropriate for all ages, it depends of course on the particular child, and this outline should be understood to be a general guideline for developing curriculum plans. One example of how this guideline might be carried out would be having very young children work with finger-paints on wet paper using very pale color, in order to develop their awareness of their own sense of touch. Or a teacher might show the children how to swirl colored streamers around their bodies while they jump over and move under the rhythmical sweeps and loops, perhaps in dramatic performance.
This kind of activity is designed to bring the children's attention to their own sense of movement and balance, as well as to recognize the power of these senses to create a certain mood.

Even more systematic and detailed work in the area of developing the perceiving senses has been done in Waldorf Schools for persons with physical, mental or emotional handicaps. This area of education was called "curative education" by Rudolf Steiner, and it is these schools that have brought forth some of the most skilled teachers in the field of perceptual development.

In the Waldorf School, many subjects of the curriculum as well as the ways these subjects are taught, reveal an underlying appreciation for the development of a child's perceiving skills. In the early grades, much time is devoted to the telling of stories by the class teacher and the re-telling of these stories by the children. This process, according to the recommendations of Steiner, works toward the development of real speech, rhythmical breathing and the laying of a foundation for correct writing. The stories told are not just any stories, but stories very carefully chosen or imaginatively woven by the class teacher which contain vivid color descriptions and rich sensory detail. The story messages are simple yet very profound and are absorbed by the children on many levels. The characters are archetypes and the plot may be carefully selected to complement the children's
area of study, temperaments or particular conflicts as recognized by the class teacher. The power of "inner pictures" is appreciated in the Waldorf School, and the pictures to which young children are exposed in the classroom, when taken into themselves, are believed to be important to the healthy emotional, mental and physical development of the child.

It has been recognized by many ancient cultures and confirmed by more recent scientific experimentation that images inside the mind are capable of producing psychological as well as physiological reactions. "Neuro-physiologists have been able to trace the pathways of images from the brain into the cells of the body, and from this they have found that mental images have many of the same physical components of open-eyed perceptions." In other words if you have a strong image in your mind that something is happening, your body may respond physically as though the event were happening in actuality. For example, the same neurological pathways are excited by imagined running as by actual running. What this information reveals is that the images we carry in our minds about "the way things are" at any given moment, can certainly influence our physical body and our emotional state. Waldorf educators believe that the kind of images a young child is fed through storytelling, for example, can influence that child's physical, mental and emotional development.
The role of the perceived image or mental picture recurs in the Waldorf School across the curriculum. When practicing clay-modelling, for instance, students may be asked to picture the features of a natural quartz crystal in their minds, and to imagine what it might feel like to become a crystal. This exercise in imagery would be done prior to actually putting their hands on the clay to form what they perceive to be the basic element of "crystal-ness". This method is also advocated by Michael Andrews, a proponent of Synasthetic Art Education who believes that "we should provide children with the opportunity to see more, feel more, hear more, to taste and smell more intensely ... this process may furnish a distinctive form of understanding which promotes responsiveness and identity so that children may evolve into creative, human individuals."

In the Waldorf School Eurythmy class (eurythmy is an art which has been described as "visible speech" and involves body movements to the rhythm of spoken word) what is expressed in words is translated into a movement of the whole body. As Waldorf teacher Roy Wilkinson explains:

the child in the early classes learns to run in geometrical or graphical forms, straight and curved lines, loops and spirals. There are special movements and exercises to foster a social sense. A special method of marking alliterations develops the will element. There are movement exercises for developing thinking or calming an excitable child. Certain exercises help a child to concentrate, while others lead an introspective child to appreciate the world around him. 63
Often in Eurythmy, the students learn psychomotor coordination as they are asked to follow the movement sequence in their mind first, and then to carry it out physically. They learn also to coordinate their movements to the pace of others in the group. Much practice in this kind of movement exercise helps one to be aware of the space that surrounds one's body and to become sensitive to one's breathing rhythm and movement through space.

Another means by which Waldorf Education works to develop the child's perceptual skills is through the use of color. The way that color is used in the storytelling drama, as well as in crayoning, painting, handwork and in the child's very environmental surroundings is a unique and fascinating characteristic of the Waldorf Schools. According to the writings of Rudolf Steiner, who wrote a number of lectures based on Goethe's Theory of Colour, every color that the human eye can perceive is an "entity of vibrancy", a particular quality of energy that has very significant effects on the human being, especially the power to awaken lively sense impressions. Often, Waldorf teachers will connect certain story characters, objects or images with certain colors, and make use of vivid color-metaphors which add to the child's imaging ability. In accordance with many ancient traditions, the Waldorf School also teaches from the point of view that colors have a significant healing influence on people, especially in terms of emotional health.
"In learning the aesthetic laws of painting, color, harmony balance and rhythm, the individual learns balance in himself", said Steiner. "When he creates out of color, he discovers his own creativity along with his own power of imagination. Thus color exercise is an excellent remedy for the emotions." Waldorf teachers work to become sensitive to the color needs and temperaments of their students so that they may suggest certain beneficial exercises during painting sessions. Teachers also work on their own personal relationship to the colors of the spectrum, in preparation for teaching each day.

In the Waldorf method, work in the arts is more process than product-oriented, for the act of "doing art" is considered to be beneficial for the development of the human being in all dimensions: physically, mentally, emotionally and spiritually. It is not only the skills of fine-motor development and eye-hand coordination in crayoning or painting that are the aim, but also the experience of the brushing on and the blending of colors, and the creating of forms out of color combinations. In the words of Dr R. Amber, author of a recent book on Color Therapy,

Enabling the student to use watercolors freely on the paper without thought of form or object and to experience the mood and movement of color is very healing. The reader is reminded how psychologists, especially the Jungians, diagnose the emotional illness of a patient by his paintings. The colors he uses and the forms he finds are indications of his emotional health.
In the Waldorf School, the children are encouraged to paint pictures out of the color element itself - not necessarily bearing any resemblance to reality. The use of color in this way provides "a powerful incentive to the child's imagination, as stories will be born out of the colors and forms. An appreciation is fostered for the colors which harmonize and also for color perspective."66

The development of the child's musical senses is still another way in which the Waldorf School works to reinforce perceiving skills. Music often permeates a Waldorf School and it is aimed at strengthening the will of the child. "Making music demands that a person's entire being be present at the moment of execution. To sing well or to perform well demands an active will. No other activity so integrates the powers of thinking, feeling and willing as making music, for the manual and vocal skill it demands is a result of concentrated thinking and intensified feeling, both translated into action."67 The musical activities of the Waldorf School include singing, recorder-playing, choral singing and instrumental music. Musical training begins in the kindergarten, when much singing is done with the children, so that they learn by the faculty of imitation. They progress to the recorder as soon as they can handle it, and again learn by watching and imitating the teacher. They copy the way the fingers move up and down and eventually learn to play simple melodies by ear. Music is taught to develop the will as well
as to awaken the senses. It reinforces the element of rhythm found throughout Waldorf School schedule and curriculum. As Dalcroze said in *Rhythm, Music and Education*, "the characteristics of rhythm are continuity and repetition. Life, in effect, is in itself a rhythm that is a continuous succession of multiple units, forming an indivisible whole". 68

One Waldorf teacher taught his class the mathematical multiplication tables by means of a story in which a prince had to climb the steps of a high tower in order to reach the treasure at the top. Here number work was combined with music and rhythmic movement like running, clapping or jumping. Most educators are familiar with the general principle of learning that states that a student learns more and retains more when multiple connections are made with what one already knows in the process of encoding the new information. The Waldorf method seems to have incorporated this general principle into its teaching approach, as evidenced by the interdisciplinary connections so often designed and incorporated into daily lessons.

In her book, *The Public School and the Education of the Whole Person*, M.C. Richards, a poet and potter, mentions the significance of developing the senses:

> To feel that our lives are meaningful is to feel that our inwardness is connected with a spiritual world across the threshold of the senses. The senses are the portal. They are the hinge. 69

One can discover some unusual and enlightening approaches to
the development of a child's perceptual abilities by exploring some of the basic principles of Waldorf Education. What seems most impressive here is Rudolf Steiner's message that development of the senses separately or unevenly is not the goal, but rather to develop and somehow reunite the senses in the whole human being and to value the inner experience, the ideas, the images, the tunes of one's inner perception as much as the information incoming from the outside world.

**Developing the Skill of Intellecting**

Teaching children to think clearly has been a primary focus in public education for many years. Scientific thinking or intellecting has penetrated into the field of education but we certainly need to consider the implications of training primarily the skills of intellecting, and leaving the qualities of perception, feeling and responding under-developed in the child. The point to be made by Waldorf philosophy is not that training the intellect should be overlooked, but that it needs to be placed in proper, balanced perspective with other skills necessary for creative adaptation and survival in modern society.

The philosophy of the Waldorf School has some very important contributions to make to the understanding of the role of the intellect in the development of the child. In his book, *A Modern Art of Education*, Rudolf Steiner wrote:
People do not think in terms of unifying human beings now-a-days. Today we have two separate branches—intellectual education and bodily training. The one does not promote the other. We squint, as it were, when we observe a human being, for there seems to be two in front of us! We must again learn to see straight, to see the whole being of man as a unity—a totality.

This section of Chapter III will describe Steiner's salient ideas about the development of conscious thinking or intellect ing in the child, and it will also identify ways that Waldorf School teachers and curriculum work to support that process of development. In addition, R.D. Klein's definition of productive intellect ing will be presented, as well as a discussion of how Waldorf Methods relate compatibly with the Klein model.

It has been only in recent centuries that human consciousness has been attributed to the brain and nervous system of the body. Perhaps Descartes in the 17th Century was the first to proclaim this theory that was to set the stage for the modern, scientific outlook on the origin of consciousness. A view of the human body as a mechanism with functional parts has contributed to the current view that parts of the body work in isolation from one another and that the human being is an entity of split capacities. This promotes the view that we solve mathematical problems with one part of our self, feel emotions with another part, and paint a picture with a third. The most recent theory of this kind is that of hemispheric specialization in the human brain.
Rudolf Steiner supported an organic rather than mechanistic view of the human being, and his work is founded on the basic assumption that "the whole human body, and not the brain alone, is a vehicle of consciousness." When one accepts this premise, one's whole definition of what it means to "know" anything takes on new significance. In this sense, Steiner regarded the brain and nervous system as the vehicle, but not as the origin of human consciousness. Accepting the idea that one's whole body is involved in the process of coming to know something, makes it possible to imagine that various capacities of the body, such as speech, movement or balance, for example, can be developed in the effort to strengthen and expand a person's thinking abilities. The suggestion here, which will be explored in more depth later in this section, is that "intellecting" in the way that most adults experience it - as "experiencing individuality within the walls of the physical body, looking out on a world thorough the doors and windows of the senses," and reflecting/ formulating about ideas or messages received, is not the same as the child's experience, the child who is not as self-conscious, who has "consciousness extending beyond the sphere of his little body into his immediate surroundings, learning immediately, not necessarily through and intermediary conscious process." Steiner's philosophy sees the conscious thinking processes of the adult as the result of a slowly evolving developmental
unfolding that for the health of the human being, should not be forcefully accelerated. As we shall see, Steiner's support of the idea of metamorphosis and gradual unfolding of the conscious intellect is the foundation upon which the Waldorf School Curriculum is based.

Klein's Definition of Intellect

Ronald D. Klein defines intellecting skills as those skills which help one to integrate new information into the body of information one already possesses - to make sense of incoming data. These skills of intellecting are closely inter-woven with perceiving skills, yet move a number of steps beyond receiving information. Intellecting includes the storing and processing of information, engaging in pattern-finding in the realm of ideas, and the formulation of abstract concepts.

Klein sees that the content areas of the cognitive domain include the figural (those cognitive processes involved in perception), symbolic (mastery of a sign system), semantic (finding meaning in words and symbols), and finally, behavioral (developing a social intelligence, a social perception, empathy). On a certain level, Klein suggests that cognitive development involves all knowing and thinking, for he says:

"With the increase of information comes the increase of potential matrices. The more facts or ideas running through
your mind, the more possible that some combination of ideas will occur." 74

In his article, Inquiry into the Factors Relating to Creativity, Klein lists some features of intellec
ting which have been associated with creative behavior. Such features include the ability to accept imagistic information not yet concrete, the ability to manipulate signs, symbols and metaphors, and the development of non-verbal communication skills which reveal an integration of emotions, thoughts and action. Also included are qualities of productive intellec
ting borrowed from Guilford's work: the ability to think fluently, producing large numbers of ideas, and to think flexibly, using different orientation to the information, different modes and categories, finding patterns and commonalities. Klein also mentions the importance of the qualities of elaboration and originality in reference to productive thinking.

The theme that characterizes Klein's descriptive features of productive intellec
ting is perhaps that intellec
ting is most creative when it can remain fluid and mobile, open to transformation. Creative intellec
ting reveals a willingness to accommodate the new and unusual, while maintaining a fullness, depth and clarity. 75 Later in this chapter, some important connections will be drawn between Klein's description of qualities pertaining to productive intellec
ting and the Waldorf School Methodology.
Ways of Knowing According to Steiner

Depth-psychologist Carl Jung said "Feeling is a way of knowing, it is the experience of valuing". When Jung was living with the Pueblo Indians, they informed him that Americans were mad. The Pueblos gave their reason for this by saying that the "Americans believe they think with their brains, but we know they think with their hearts."

Rudolf Steiner also connects knowing with "receiving into one's soul" and "feeling". Webster's Dictionary defines thinking as the "entrance of ideas into one's mind". Intellect is said to be "the power of rational thought as distinguished from the power to feel and to will". To know, on the other hand, is defined as "to have experience of, to understand, to recognize the nature of".

It seems crucial to clarify the point that thinking and intellecting, as they have been commonly defined, are words that support a more mechanistic view of consciousness. Knowing, however, seems to connote that the whole self, one's wider experience is involved in the process of taking in new information and making sense of it. Picturing the body as a mechanism with consciousness emanating from and confined to the brain alone, sharply narrows one's field of available knowledge. In contrast, to imagine the whole body as capable of knowing opens us to many more possibilities about how and what one may come to understand through experience.
Steiner once said that "thinking is cosmic knitting". Thinking, according to Steiner, was beyond the material/physical body plane, but used the physical body as a medium through which it could express itself. In this way, "thinking may be thought of as a continuous thread that develops into whole thoughts, whole patterns. Through the limbs one can awaken the head."76

**Waking, Dreaming and Sleeping**

Modern psychology has drawn attention to the fact that what humans consciously experience is only a fraction of the powers of knowing which influence them during daily life. Steiner believed this to be true as well, but did not use words like sub-conscious or unconscious, which describe only negations of the conscious state.

Steiner recognized three "states of existence or experience", "waking", "dreaming" and "sleeping" which live in us contemporaneously. "As we go about our daily lives, part of us only is awake, another part is dreaming, and a third part is asleep. In these three we have a polarity between the almost complete darkness of sleeping consciousness, and the bright light of waking experience, with the dream life as an intermediate term."77

Steiner also associates the three-fold nature of humans in their capacity to think, feel and will, with these three
spheres of consciousness, waking, dreaming and sleeping. Thinking is associated with waking - the full light of consciousness. Willing corresponds to the unconscious, sleeping, in that we may be conscious of our intentions or of what we've achieved, but the process of consciously willing eludes us. And the feeling faculty has been described as "the unconscious seeking the light of the conscious and the conscious seeking the universality of the unconscious." In this sense, feeling lies between the conscious and the unconscious as a dream lies between waking and sleeping.

Accepting the idea that we exist amidst these three spheres of influence, only one of which we are consciously aware (others of which influence us without our being consciously aware) requires the re-examination of what educators mean when they speak of "thinking" of an idea or "knowing" that something is true.

Steiner's ideas about waking, dreaming and sleeping are intimately related to what Waldorf Educators call the "Art of Forgetting." Forgetting is accepted in children as not a practice to be avoided, but rather as a natural process where ideas go to sleep and are later re-awakened. This is a reason why, in the Waldorf School, Main Lesson subjects (history, mathematics, English, etc.) are studies in time blocks of three to four weeks each and then returned to later in the year. It is also the reason behind the Spiral Curriculum idea where students return to study the same subjects in
more depth as they move through successive stages of development. It is believed that knowledge is "forgotten into the depths of the child's being and will gradually emerge as capacity - perhaps in the way the child speaks or experiences."79

The Role of the Non-Conscious Spheres in Knowing and Creative Production

In the chronicle of invention, there are many accounts of creative production in which "conscious intelleting" takes a back seat in order to allow new solutions or insights to progress to visibility. For example, Gauss, referring to an arithmetical theorem which he had unsuccessfully tried to prove for years, wrote: "like a sudden flash of lightening the riddle happened to be solved. I myself cannot say what was the conducting thread which connected what I previously knew with what made my success possible."80 A well-known physicist in Britain once told Wolfgang Kohler: "We often talk about the three B's - the Bus, the Bed and the Bath. That is where the great discoveries are made in our science."81

There are many such examples in the fields of both art and science which support this idea as Wallas described it in The Art of Thought, that the creative thought process happens in successive stages: first, the stage of preparation in
which a problem is consciously worked over, then a period of incubation without conscious concentration on the problem, and later the illumination or the "idea" which is finally justified and evaluated consciously. What is important to note here is that the actual "leap into discovery" as we might call it, is often not a product of conscious intellect. It appears to be the case, in fact, that the conscious intellect has to first let go or forget the problem in order that it might be solved. These examples are compatible with the view of Steiner, that our states of waking, dreaming and sleeping are all involved in the production of our ideas.

Imagery and Knowing

In his book *Visual Thinking*, Rudolf Arnheim explains that truly productive thinking takes place in the realm of imagery. The section of this chapter on Perceiving Skills explored in depth the Waldorf School's belief in the importance of a child's image experiences and described how mental images may influence a human being on emotional and physical levels. Waldorf teachers are encouraged to educate "out of the very essence of imagination", working with archetypal images, pictures and parables, especially with children between the ages of seven and puberty. The object is not to explain the significance of these images to the child verbally, or even expect that the child will react in a certain way to
certain images. Instead, the belief is that images have an inherent power that will speak to the child on the sleeping and dreaming levels, and later in life, the more fully-developed individual will be able to integrate these meanings in a conscious way. If a child becomes skillful in this power of inner visualization, Waldorf educators see this as paving the way for mobility in conscious intellecting, pattern-finding and metaphoric thinking. Manipulation of images and mental pictures, finding forms in pools of watercolors, hearing and telling stories full of intensity and elaborate detail are all considered to be the nutrients for the full development of conscious intellecting at a later stage. To leave the world of imagination too soon is to cause the child to "withdraw from the world pre-maturely - to become detached in order to observe it accurately and then generalize about it consciously, resulting in knowledge that lacks the quality of wisdom." So, if the child is encouraged to engage in conscious intellecting before the capacity for imaging has had full time to develop, the child's thinking loses its flexibility, and in some cases the child loses the capacity to integrate thinking with feeling and willing. Retaining the imaginative qualities in one's thinking process is recognized as keeping thinking mobile and alive. Ralph Waldo Emerson said "the nature of things is flowing" and "the quality of imagination is to flow and not to freeze."
How Knowing Develops Over Time
According to Steiner

In addition to understanding the role of the unconscious and the role of imagery as they relate to knowing, another integral component to understanding the Waldorf School's view about knowing is the idea that the ability to engage in conscious intellect as adults do, is a capacity that develops over time.

Recognized within this aspect of Steiner's theory is the polarity between physical development of the child and the development of the child's consciousness. One Waldorf educator, A.C. Harwood, said that "physical growth proceeds from the head downwards, while the awakening to consciousness develops from the limbs upwards."^84

In the very young child, thought is not detached from bodily limb activity. One might say that the child thinks in terms of bodily activity. The child is never doing one thing and thinking another, for the whole body-self is involved, is concentrating. Steiner explained that about age seven, at the change of teeth, a child's thought begins to take on a new form, beyond bodily activity. Thought in these middle years, until puberty, lives as "feeling-consciousness" which is pictorial and uncritical in character, almost like dream consciousness. It is only at puberty when the awakening consciousness reaches the head, that the head becomes "the
bearer of thinking and all the characteristics of intellectual, critical thought begin."^85

Waldorf Education works from the perspective that ontogeny (the development of individual consciousness, physically, mentally and emotionally) is an actual mini-recapitulation of phylogeny (the evolutionary development of life forms in general). For example, a human fetus in the early stages resembles an amorphous sea creature, and later on in the womb develops a tail-like extension which eventually drops off. The human fetus can be seen to physically move through successive stages of life forms in the womb. Waldorf Philosophy goes beyond the "ontogeny recapitulates phylogeny" idea recognized by natural scientists, to say that after a child is born, he gradually moves through a mini-repetition of the historical evolution of human consciousness. From this perspective, the general themes that characterized human consciousness throughout the centuries can be recognized in the stages of development of consciousness in the individual child. "The stages in human history are at the same time stages in our own cosmic biographies. Human history lives in the unconscious of each person and the evolution of consciousness is re-capitulated in our own growth from infancy to adulthood."^86 This belief influences the Waldorf curriculum that is deemed appropriate to the growing child at various stages.
Carl Jung spoke of the collective unconscious, a mythological reality that lives in all human beings. Steiner goes a step beyond Jung's thesis to say: "In reality, the child reapitulates all the forces, all the phases of the development of the human race." The themes of successive human civilizations and their relationship with nature and spirituality can be recognized within the Waldorf School Curriculum. The ways in which the development of an individual child's consciousness corresponds to the development of human civilizations over time becomes most apparent upon close examination of the Waldorf School History Curriculum. One needs to be aware that all other subject and skill content may be designed to revolve around these themes.

In Waldorf Schools, the teaching of history is preceded by literature and language experiences that are considered to be related to the study of history. It is believed that in order to develop an understanding of the history of civilization, one must "have acquaintance with works, both written and oral, that humans have felt, revered and lived." The assumption underlying the Waldorf History Curriculum as a whole is that in order to build a positive future, individuals must be the possessors of a rich and imaginative historical
perspective. There is also the assumption that children should study the stage of human civilization that most closely correspond with their own stage of consciousness.

In the past, mythologies were inextricably interwoven with the whole fabric of human existence. The individual was submerged in the tribal or family group, and the stories, the myths, the rhythms of daily activities, the changing of patterns with the change of seasons were what held together the lives of the people. In the Waldorf School's first and second grades, fairy tales from different cultures, fantasy stories, animal fables and legends about saints and heroic characters serve as the narrative backdrop for helping children to become attuned to details and to awaken to nature and the physical environment surrounding them. Fairy tales are used because they are wonderful models for the imaginative description of nature and because they are believed to be symbols of ancient archetypal and primeval wisdom. The teacher makes no attempt to moralize about the stories to the children or explain them logically — rather the symbolic images are believed to be absorbed by the child's sleeping and dreaming self, providing the seeds for more conscious nourishment in later years. Rhythmsical movement, singing, painting, baking and clay-modelling are introduced to the children, who play in practice and imitation. The children might act out simple stories with movements taken from word sounds, and much repetition is encouraged as an exercise to develop the child's
In the second and third grades (7-8 years old) the fables and legends given to the children contain more "human" rather than fantasy elements. This transition leads the children to the feeling for more human qualities in nature, and human beings' relationship with nature. The perspective underlying this is that these fables and legends were "born of a stage of consciousness in which mankind felt (as children feel) that soul qualities were expressed in other kingdoms of nature as well as in man." A legend of this description, for example, would be one in which some special person lives in such sympathy with nature that he/she has power over all of the elements and the animals.

The Stories of the Old Testament, Noah and the Ark, David and Goliath, are also content for part of the Third Grade curriculum. These dramatic stories might be topics for play acting, movement to music, painting or crayoning. As the children get older, they become more involved in the re-telling of these stories. After there has been time overnight for the story to settle in, it will be re-told and questions of the "What if?" and "Why?" variety will be asked of the children. Thus after the holistic apprehension, the students engage in what traditional educators call Critical (why? how?) and Creative (what if?) exploration of the material.
By 4th and 5th Grade (9-10 years old) the pictorial/feeling consciousness of the children is still the basis for their learning, and they encounter broader, more historical pictures of mythology like the Norse Sagas, the traditional stories of Ancient Egypt, Persia, Babylonia, India and the birth of Ancient Greece. History as such is experienced mainly through the biographies of notable personalities of each time period. "As children recognize the common threads and the quality differences between cultures, they become more tolerant of different views of life and attitudes about birth and death."  

The fifth-grade child is seen as having a consciousness akin with Greek consciousness, complete with a sense of fluidity, harmony and balance. They are beginning the transition from mythological, pictorial consciousness to a consciousness marked by critical thought and objectivity.

As Waldorf teacher Marjorie Spock noticed:

Between the 10th and 11th years, the imaginative thinking characteristics of early childhood undergoes a metamorphosis from which it re-emerges as the ability to form abstract concepts. The time comes when the matrix of imagination within which the intellectual capacity has been ripening releases thought in its full power. 90

It is these years, between the change of teeth and puberty, that are viewed by Waldorf educators as a time for the child to be collector and absorber of his environment, to really learn to use his senses to their full capacity. Steiner
wrote in *Education of the Child*:

Humans are not in a position to judge until they have collected, in their inner life, material for judgement and comparison. If a person forms his own conclusions before doing so, his conclusions will lack foundation. For this reason, up to the age of puberty, a child may be told what different people have thought about this and that, but one must avoid his associating himself with one view or another, through too early an exercise of judgement. The main consideration is that the child should simply meet the experiences of his life, receiving them into his soul, feeling them, not letting unripe judgement come in at once and take possession. 91

When speaking about the development of the child's intellecting skills in Waldorf Education through the use of pictures, it is essential to mention the idea and practice of Form Drawing, which is a term used to describe dynamic line exercises in symmetry that are presented in Waldorf Schools. The purposes of Form Drawing include training the dexterity of children's hands for the writing of letters and numbers, as well as developing the children's sense of composition and flexibility in thinking through having to find relationships between parts of a drawing and between the drawing and the page as a whole. Form Drawing also engages the child's senses - the sense of movement, of balance, of touch. Some samples of Form Drawing at different grade levels are illustrated on the next few pages (see Figures 4, 5 and 6 Form Drawing Samples). The practice of Form Drawing springs from the idea that the development of the intellect is in reality a whole-body, multi-sensory integrated process, not a
4th and 5th Grades

Figure 5. Form Drawing Sample
1st and 2nd Grades

1. 
2. 
3. 

having an argument
prancing
fighting
sliding
running

Figure 4. Form Drawing Sample
Historical Designs

Figure 6. Form Drawing Sample
child's growing consciousness: perception of three-dimensional qualities and a more conscious awareness of themselves as observers and connection makers. Waldorf teacher Eileen M. Hutchins speaks about the development of conscious intellectual:

Our senses bring to us beautiful images, reflections of activities which take place around or within us; but so long as we are only observers we cannot grasp the reality of these images. In order to read their meaning, we must develop the activity of thinking. As soon as our thinking becomes active, we make connections between our many sense impressions; we discover in them certain rhythms and sequences. 93

The ideas of rhythm and repetition are found again in Waldorf Education's description of the activity of the intellect, for making connections and recognizing pattern are the basic foundation elements of the more complex thinking tasks like generalizing, comparing, and inferring.

Eighth Graders are still at the end of the period of pictorial, imaginative perception and enjoy biographical narrative and dramatic events. In the Waldorf History Curriculum at the eighth grade level the teacher builds up a series of pictures leading from the Seventeenth Century to modern times, with the help of a sequence of biographies depicting major changes in the last four centuries. The theme of Revolution, political, industrial and scientific, mirrors the revolution of the average eighth grader - the questioning of authority, the struggle for power, the demand for truth, the dawn of the ability to apply critical and objective
thinking to the world around him, the learning to see a situation from the point of view of the other.

If the Waldorf Curriculum demands one thing, it demands time for students to allow new ideas to be absorbed, to allow new feelings to be experienced. As we have seen, the character of the curriculum is designed to change with the child's changing capacities as he emerges into different stages of developed consciousness and forms of intellectual expression. In addition, the class teacher reserves the freedom to make necessary changes and additions for the sake of specific classes and specific students.

The Teacher's Role in the Development of Consciousness

It is necessary to recognize the centrality of the teacher's role in the Waldorf School, of a richly developing imaginative intellect moving toward fulfillment. Waldorf teachers are primarily self-selected, and most have undergone specific training in philosophy, child-development and the arts and sciences at colleges specializing in Waldorf teacher-training. Realizing the quality of deep, personal commitment of time, energy and imagination that is required of a Waldorf teacher, and sharing Steiner's idea of "teacher as artist", many of these persons tend to be very highly creative individuals in their own right.
In the whole course of the Waldorf School Curriculum, the teachers own imaginative intellect, sensitivity to feelings and activity of will are called for in designing and implementing lesson plans for each three to four week block of study. The Waldorf School environment is a ripe one for the exercise of pattern-finding and connection-making because of the inter-disciplinary scheme, the emphasis on rhythm and repetition, and the Spiral Curriculum. Subjects of study are not divided into the "humanities" and the "sciences" since both are seen to be unified by the natural world and its organic sense of order and beauty. Both art and science become humanities in the Waldorf School, since all subjects are presented in relationship to the human being and to each other, rather than in isolation. Students may observe their own teacher teaching subjects such as Geometry one hour, Shakespeare the next, Stone-carving in the afternoon. Thus the subjects are brought together in a kind of forced relationship which provides opportunities for many new and surprising connections to be made in the minds of both teachers and students. One recognizes in this example a strategy that is widely recommended under differing labels in the literature on the development of creativity: finding forced relationships, forced fit, making the strange familiar, to name three.

In selecting specific materials for what appears to be a very broad based curriculum, and in discussing their roles,
Waldorf teachers refer to the art of economy, a skill of eliminating "so that what is essential can speak more clearly." One sees here the rule of parsimony discussed across schools of creativity, of the value of concretization for imaginative ideation. The questions a history teacher needs to ask are: What moment of history? What personality can be chosen to personify a certain period of history? In response to this, Rudolf Steiner suggests:

When you teach history you will need to collect and bring into play all your own temperamental tendencies and imbue the lesson with strong personal interest. We must be there with our heart. We must paint the historical situation in such a way that the child cannot help having in imagination a kind of picture of Julius Caesar, for example. The child sees him walk, follows him about. Steiner made it very clear in his writings that the role of the teacher, the inner emotional and psychic state of the teacher, and all of the outward behaviors of the teacher are crucial factors that influence the healthy development of the child. In his book, Essentials of Education, he explains that the relationship between child and adult will eventually affect the breathing habits, digestions, limb mobility and heart rate of the child. The idea that one's state of mind has the power to influence the condition of the body, and also that the condition of one's body can influence one's state of mind, was described in the section of this chapter on developing Perceiving Skills. It is suggested, then, that the
teacher's calm, centered inner state has a centering effect on the children. Steiner connected the development of speech in the child with the development of thinking:

Thinking arises in turn out of speech and since the young child is one great sense organ and imitates those around him, clarity and precision must permeate our own thinking and be reflected in our way of speaking to the child. Inner as well as outer punishment can be inflicted on a child. We must help to build up the child as a sculptor who works on his medium with mobile, delicate hand. 96

So then, it is more than the Waldorf Curriculum and exercises that help to develop and nurture the child's growing consciousness. It is also the relationship between the child and the Waldorf teacher who has committed himself to such a task.

How Does Waldorf Education Support Klein's Model of Creative Intelecting?

Now that we have explored the parameters of Waldorf Education in regard to the development of the child's intellect, we may pause to consider some connections between the qualities of creative intellecting as outlined by Klein, and the goals and methods of Waldorf Education.

A teacher at the New York City Waldorf School wrote about the kind of thinking the Waldorf School works to develop and he termed it "appreciative thinking". Appreciative thinking combines elements of critical thinking (convergent, linear,
analytical process) with elements of creative thinking (a more divergent, synthetic, discovery-making, relationship-finding process). As this teacher defined the qualities of appreciative thinking, it is thinking that:

- seeks to be receptive or open without lacking discrimination;
- seeks to be plastic without being flabby;
- seeks to be mobile and imaginative without being restless or aimless;
- seeks to be constructive and truthful;
- seeks sensitivity for the acknowledgement of others;
- is aware of the wholeness of things in which we move and seek some ultimate harmony, without being blind to the role of conflict in life.

Appreciative thinking, as this Waldorf teacher termed it, has much in common with the kind of creative intellecting that Klein's model described. In many ways, the Waldorf School seeks to develop the same kinds of qualities in thinking.

The Waldorf School's emphasis on dramatic storytelling as a means for conveying content, and the power of symbols, detailed, imaginative descriptions and visual imagery, as well as the awareness of the dreaming and sleeping consciousness of the child, certainly support Klein's idea of teaching children to accept imagistic information not yet concrete, in order to maintain access to the subconscious. In the Waldorf School, children are able to feed off of the elaborate detail of their teacher's stories, and at young ages learn to imitate and later to create original, elaborate descriptions. They also experience this attention to detail thorough handwork like knitting, or through music, in
The experience of valuing the intensity of color is awakened through watercolor painting techniques continued throughout all grades. Very important also, is the value placed in the Waldorf School on the "inner experience" of the child, so that he learns to pay attention to, and value all messages coming from inside his body, heart and mind, and learns eventually to create and maintain an internal locus of evaluation. The teacher's role as model of creative intellecting as Receiver, Responder and Valuer of the child's ideas and feelings, cannot be underestimated here. A teacher whose own curiosity, acceptance of new ideas, and willingness to tolerate unusual questions can be crucial to establishing a warm, safe, psychological base for the risk-taking Klein highlights as central to open responding.

The inter-disciplinary nature of the Waldorf Curriculum and the idea of having a single class teacher continuing from Grades One through Eight with the same group, who teaches the Main Lesson subjects, lends itself well to making metaphors and recognizing patterns across time, both qualities which Klein mentions as crucial to creative intellecting. For example, in studying the concept of mathematical progressions in the upper grades, a teacher may draw from all subject areas to find such examples of the process:

a) numbers and logarithms,
b) in the chromatic scale on a piano,
c) in astronomy - laws for planetary distances,
d) in banking - compounding interest, e) in biology - the multiplication of cells, f) in the organic structure of shells - a chambered nautilus. To link such different areas of study together cannot help but to increase the "potential matrices in the mind", as Klein would say.

The practice of Eurythmy, which has been defined as "audible sounds transformed into visible movements - into visible speech and visible song", gives children of the Waldorf School a feeling for extending themselves out into the environment, learning the space around themselves in relationship to others, and learning to concentrate, listening with their whole selves. Such activities help to foster what Klein calls social intelligence or social perception.

Henry Barnes, a Waldorf teacher for over thirty years, likened the organizer of human experience to a Charioteer, guiding three powerful beasts, one of Will, one of Feeling and one of the Intellect. In his words, "Real intelligence is a function of the whole human being - will, feeling and thought." 99

If creative intellecting, as Klein describes it, is intellecting that remains fluid and mobile and maintains a sensitivity to others, depth, clarity and a sense of discrimination, it appears that Waldorf Philosophy and Methodology is working to awaken these same qualities.
Development of the Intellect through Art

One finds that opinions voiced by many specialists in the field of Art Education are compatible with the ideas of Waldorf Education, especially the view that art may be used to develop a child's ability to perceive and to think.

This assertion is most clearly described and defended in Rudolf Arnheim's work, *Visual Thinking*: "artistic activity is a form of reasoning in which perceiving and thinking are inextricably intertwined. An artist learns to think with his senses." Arnheim defends the process of education through art by saying:

> The arts have been neglected because they are based on perception, and perception is disdained because it is not assumed to involve thought. Actually, the arts are the most powerful means of strengthening the perceptual component without which productive thinking is impossible.

Arnheim's criticism is well-founded: our thinking capacity is limited by how we learn to observe and absorb all the stimuli of our environment. If our perceptual capacity is limited, how can our thinking go beyond that limitation?

The power that the arts embody to help people perceive and think more fluently, flexibly, elaborately and originally has been recognized by Waldorf Education.

> The thinking that emerges as a ripened power from the matrix of a healthy imagination is a warm and mobile thinking.

This is why Waldorf teachers present lessons out of their
own creative imagination as artists, as "magicians who conjure up reality in a thousand forms". This is also why much of the Waldorf School Curriculum integrates movement, music, drama, painting, and handwork into the themes of academic subjects like English, science, mathematics and history. This point of view assumes that since consciousness pervades our entire selves, not our brains alone, each of our ideas may be as much a product of other capacities of the body as of conscious thinking. Therefore we need to train all of the senses and capacities of the body-self to be sensitive to the environment, both internal and external. Steiner said, "It is no mere figure of speech to say that man can understand with his feeling, his sentiment, his disposition as well as with his intellect." In terms of education, then, the goal is to train the entire body-self, heart mind to experience fully.

The significance of the imaginative impulse of the arts, and the benefits of integrating the arts with other subjects needs to be recognized, if our goal is to develop the kind of thinking in children that opens the door to wide experiences of consciousness and self-consciousness, imagination and fluidity of insight that keeps them awake to the world.
Developing the Skill of Feeling/Valuing

Dr. E. Paul Torrance, in his book, *The Search for Satori and Creativity*, devotes one chapter to a discussion of the connection between emotional development and the capacity to engage in creative endeavor: "the perseverance and deep involvement that are required to experience genuine breakthroughs in thinking or invention require commitment of a high degree and a deep emotional attachment that transcends reason and logic."

Klein's Model of Creative Behavior also recognizes that feeling and valuing are primary and necessary factors of creative production in combination with perceiving, intellect ing and response factors. In "Evolving Creative Behavior", Klein states: "Whereas perception is linked very closely to physiological skills and apparatus, and whereas knowledge is closely tied to cognitive skills, the concept behind an increase in sensitivity is closely tied to development in the affective part of a person's make-up - those reactions arising from feeling or emotion."

Klein describes the creative individual as one who exhibits a large repertoire of expressible feelings, who is particularly sensitive to the inner and outer environment, and has the confidence to own feelings as they arise. The ability to discern among feelings, to develop an elaborate range of imaginative feelings, and to exhibit an empathetic understand-
ing of others are also qualities of affecting which Klein relates to creative behavior. In addition to these, another crucial component of creative, affective development is the mustering of courage and inner strength in order to tolerate a certain level of "cognitive strain", risk, chaos or unknown information in the process of creative production.

The design of Waldorf Education is to cultivate a balance between the intellect, feeling and will forces of the child. The goal of this section of Chapter III is to explore the ways in which Waldorf Education works to awaken and deepen the creative "feeling life" of the child through the establishment of long-term trusting relationships between student and teacher, through the exercises of watercolor painting which incorporates the therapeutic experience of color, and by means of the symbolic and imaginative vehicles of story-telling and drama.

Reverence for the Child

J.C. Gowan expresses a principle that is akin to the Waldorf School approach with regard to the development of the child's emotional nature. In Development of the Creative Individual, he says: "Help the child to value. A child needs to be valued and to have his ideas valued before he can value others or their ideas. Valuing is a stage in affective learning, previous stages of which are receiving the child and re-
A feature often recognized by those who observe at Waldorf Schools is the degree of reverence that teachers hold for the feelings and experiences of the children, and for the children as individuals. The evidence for such an aura of reverence is to be found in the teacher's gentle quality of voice and physical and facial expressions that reveal openness, appreciation, genuine concern and the capacity for surprise and amazement. There is a sense that "the world is full of wonder and marvels and human beings are bestowed with stupendous capacities for universal knowledge." The teacher as a role model of being an experiencer, an expressor, and an empathizer of feelings is crucial in the children's process of learning to accept and share their own feelings.

In addition, the fact that a teacher remains with the same class as it progresses through the grades helps a teacher to cultivate an intimate understanding of the needs and temperament of the child, and fosters within the child a sense of emotional confidence and security about how he/she will be appreciated and accepted. The long-term relationships between students and teacher and among students in a class provides a harbor of trust and safety which may facilitate dealing with feelings of misunderstanding, conflict or tension that may arise from time to time. Formal evaluation of a student's work (tests and grades) does not usually begin in a Waldorf School until the upper grades (8th - 12th). Students are
encouraged to improve on their own work, and as one Waldorf teacher said, "Emulation, not competition is encouraged. The point is: What can you do in terms of yourself? And, as you help yourself, what can you do to help another?"\textsuperscript{108}

According to Carl Rogers' article, "Toward a Theory of Creativity", psychological safety is a major condition that has been seen to foster constructive creativity. The qualities Rogers defines as contributing to psychological safety are: 1) unconditional acceptance, 2) the absence of external formal evaluation, and 3) empathetic understanding.\textsuperscript{109} It appears then, that Waldorf Education has an interest in promoting an environment of psychological safety for its students.

The Experience of Color

Modern psychology has once again validated emotions as legitimate concerns for development; numerous therapeutic theories connect psychological health with nurturance of the affective domain of the personality. Art therapy, for example, which draws on the rich imagery and symbols of the unconscious, helps certain individuals to uncover emotional roadblocks to health, often in situations where intellectual or verbal analysis would prove ineffective.

The Waldorf School approach to watercolor painting and the seriousness with which a child's first experience with color is taken are examples of two ways in which Waldorf Ed-
ucation tends to the affective development of the child.

Dr. Reuben Amber's recent book on Color Therapy suggests that "no one quite has Rudolf Steiner's insight into the functioning of color as a healing entity." Based on an application of Goethe's Theory of Color, Steiner's work reveals an underlying connection between an individual's color experience and his psychological and emotional health. In the words of an artist who has studied Steiner's work in depth, this is how color interacts with human nature:

All true color experience rests upon the harmonious or one-sided distribution of a triad, the three primal colors: yellow, red and blue. Subconsciously, everyone has a persistent longing for them all. This fact can only be understood if the three-fold structure of the human soul is recognized. It lives in a continuous struggle to create a harmonious balance between its three fundamental capacities - thinking (yellow), feeling (blue) and willing (red). At one time it may be that thinking has the upper hand, and this tends to a certain psychological coldness; at another, the will becomes unbridled and kindles dark, unwholesome fires... Man seeks for an equalized development of this triad (of the primal colors and their qualities) upon which his whole psychology is based, and he experiences inner conflict in endeavoring to achieve it. In (painting) practice, the student can experience what feelings are aroused by certain color combinations and arouse such feelings in the viewers of his own paintings.

In this way, Waldorf Education presents painting and color exercises as curative and later as effective habits, especially for the emotional development of the child. "In learning the aesthetic laws of painting, color, harmony, balance and rhythm, the individual learns balance in himself", said Steiner. When a person creates out of color, he be-
comes aware of inner feelings, discovers a sense of inner
creative inspiration and imagination. " The innate forces
begin to unfold and this self-discovery constitutes part of
his cure. Thus, color exercise is an excellent remedy for
the emotions."

In the Waldorf School the idea of watercolor painting
is to use watercolors freely on wet paper, without thought
of form or object, watching what develops when the colors
meet. The experience involves building the courage to take
risks with the gentle strokes of the brush, becoming sensitive
to inspirations and conscious of the rhythm of one's breath
while finding harmony between the flowing out and the holding
back of the colors. It is important, while engaged in
this activity, to give attention to the direction and impact
of each stroke, almost in a receptive, meditative state of
concentration. This is the sort of painting experience the
Waldorf teacher works to embody, so that very young children
might begin to develop this sense within themselves, by watch­ing
and imitating and sensing the teacher's experience on
an inner, feeling level.

The colors a child may choose, how he uses those colors,
and the forms he discovers in the pools of color on the page
are all indications of the qualities of his temperament and
his state of mental and emotional health. The Waldorf teacher
becomes aware of these qualities and may later provide en­
couragement and suggestions for ways that this child may
work with color in order to come closer to a balance of qualities. The child with a predominately choleric temperament, for example, very outgoing with a sense of fiery determination, may hold the brush tensely and paint fiercely and forcefully, allowing the color red to overpower his painting. This child may on another occasion be encouraged to "tickle the paper with the brush" or to work gently with the colors yellow and blue, experiencing the different feelings of those colors on the paper. Through such exercises, the child makes use of visualization and imagery to "become the brush", encouraging a flexible, egoless state of receptivity.

In the younger children, an inner feeling for color harmony, for the movement of colors, for color space and color perspective is being developed. As the children get older, an understanding of the painter's point of view is introduced, and painting exercises show a movement toward an experience of color outside in nature, where objects appear out of the relationship between light and shadow. By concentrating on color rather than form at the beginning, one result is that students will learn to see that objects in nature are not so much bounded by lines as bounded where their colors meet. Later, the forms will arise out of color in the students' work, rather than colors out of forms. In Waldorf Schools, watercolor painting and color exercises are not presented as an independent subject, but are integrated into the Main Lessons.
Steiner said: "a teacher should be careful to develop writing out of painting and drawing until the child is able to write down what it inwardly experiences as words or sentences."

Story-telling and Drama

Emotional involvement and expressiveness are certainly required for engagement in the creative arts - especially in the areas of musical composition and performance, interpretive dance, dramatics, creative writing and many of the visual arts. Torrance, a pioneer in the field of Creative Problem Solving and Creativity, has developed techniques in Socio-drama and creative dramatics. Torrance has found that such methods are "good vehicles for providing practice in emotional awareness, involvement and expression."

Two of the most frequently used teaching tools in Waldorf Education happen to be story-telling and creative dramatics. Often the story is the keystone, whether it be a story invented by the class teacher, a fairy tale or an historical or biographical narrative. The story lends itself to the teaching of all the subjects, music, writing, reading, mathematics, painting, modelling, science, history and dramatics, and simultaneously to the affective development of the child in terms of emotional awareness, involvement, empathy and expression.
In training programs for Waldorf teachers, the art of story-telling, not story-reading is emphasized. What is considered essential for the success of the story-telling event is not only the content of the story and the intonation of the storyteller, but the storyteller’s own quality of feeling for and belief in the power of the story—that is the key. Waldorf teachers also learn that the rhythm of a story is related to the human breath and heartbeat, inhaling, exhaling, inhaling, exhaling. A well-told story is said to have physical as well as emotional effects, it harmonizes the breath, affecting the breathing process of the storyteller and of all who listen and watch. Stories are believed to embody a symbolic power to change people’s states of awareness, to inspire listeners with courage to pursue truth and treasures, to search for what has been lost, and to experience new ways of being.

Waldorf philosophy understands the necessity of both positive and negative force elements in the stories told, and although it is felt that stories need to be age-appropriate, no attempt is made by the teacher to censor what appear to be frightening or evil elements in fairy tales, and no moralizing is done—the symbols are left to speak for themselves.

It is a mistake to omit the terrible things which occasionally occur in all stories, including fairy stories. Fear is also a part of life, and children will find a way of inventing fears, however much adults try to shield them... All great stories, like life itself, are compact of diverse moods and emotions.
As literature on creative behavior suggests, a person's ability to be open to conflicting aspects of his emotional experience without blocking certain feelings in a defensive manner, is known as "extensionality", and this ability has been recognized as an important condition of constructive creativity.

When they don't invent original stories for children, Waldorf teachers select stories which have a rhythmical repetition of events that follow one another in a pictorial and often un-logical way. In the original versions of fairy tales by the Brothers Grimm, for example, the human qualities of courage, honesty, warmth of heart, innocence, are opposed by trickery, envy, cruelty and folly. All of these qualities are embodied by symbolic characters: kings, soldiers, princes and princesses, witches, giants and dragons. When the story is told in an impactful manner, it is believed that the children experience on a feeling level, the kernels of archetypal wisdom imbedded deeply in the story.

The fairy tale is addressed to the Psyche. To develop our humanness we have to kill and transform many lower attributes of the self, we have to free ourselves from the ties of heredity, to become ourselves. Thus, throughout our lives we suffer many deaths and many re-births, and consequently expand our consciousness. The fairy tale reveals to the young soul the process of liberation, not to be understood by the intellect not yet mature, but assimilated deep within the inner life, the spiritual unconscious. 116

Having students retell the story to the class, elaborating on scenes from the story with crayons or watercolor paints,
or taking roles and performing certain scenes from the story in unusual ways only help students to more fully experience their feelings about the story, through personal identification and inter-personal interaction with the character symbols.

The seasons of the years and the cyclical rhythms they represent are a continuous source of wealth from which to create stories, dramatic performances and celebrations at the Waldorf School. The Michaelmas Festival, for example, is a festival of the harvest, a time for telling of the great myth of St. Michael and the Dragon, when classes do paintings and performances around the harvest theme.

Feeling is thus developed in the children through the telling and re-telling of stories, fables and legends, "through pictures of great men and women taken from history, a deep study of the beauty and secrets of nature, and the cultivation of the sense of beauty and the awakening of artistic feeling." 117

One fifth grade teacher in the Sacramento Waldorf School described a Main Lesson block he prepared called "Botany as Music and Poetry", where the students made connections between the musical scale and the progression of plant forms; each student wrote a tune which he played on his recorder, called "The Seed's Awakening". From this teacher's description, one can imagine how, for these children, a story becomes movement, becomes music, becomes feeling, becomes
poetry:

As an introduction to our study of the plant kingdom, I led the children from a dramatic story of the seed's awakening to their own creative expressions of this birth of life forces. Each child discovered a tonal harmony which we then moved our bodies to, using our cupped hands as the seed. Then, as the melody was played, our hands followed the opening of the seed, roots first search, uplifting of the seed-enclosed leaves, breaking into light and warmth, spreading of the seed leaves, upward striving of the stem, and then- the first true leaves! All this formed by a few notes! A poem-like expression followed. 118

Integration of Values into Waldorf Education

Stories or verses may also be selected or created for use as symbolic tools for positive suggestion to the students. The work of Bulgarian educator Georgi Lazonov, called Suggestopedia, is based on the principle that unconscious mental activity can be brought into activation through the power of suggestion, whether suggestion be in the form of verbal or environmental cues. Lazonov's classroom procedures are designed to "orchestrate the flow of stimuli received by the student in such a way that both consciously and subliminally perceived cues are coordinated with each other to exert maximum suggestive impact on the unconscious, and to free the mind's learning reserves." 119

In a similar way, Waldorf Education recognizes that children are perceiving and feeling on many levels besides the conscious level, and that these levels too, can be crucial to
consider in the teaching process. Rudolf Steiner appreciated the power of suggestion and its possibilities for education. In his book, Practical Advice to Teachers, he said:

It is important in teaching to always have something up your sleeve, which may contribute, unseen, to the child's education. For instance, with young children, one may use the word 'bath' to help in teaching lettering (alluding to cleanliness). It is good to have something like this in the background, without actually mentioning it or concealing it in admonishments. Choose examples that compel children which may contribute to a moral and aesthetic attitude. 120

One can easily find this technique being used in the Waldorf Schools by examining the verses used in teaching the children writing, reading, recitation or singing. The verses are carefully selected for their inspirational value content, their rhythmical content and their aesthetic content. The children may, for example, use such a verse as part of a eurythmy lesson, in order to develop a feeling for the sounds and the meaning, not only with their physical bodies, but with their emotions:

Let us bravely now build with fine bricks,
Both a high and handsome new house,
That it first may be firm and well-founded,
We will dig a good depth for foundations,
On the clay we will cast molds of concrete,
Then we'll make and we'll mix a good mortar,
And bricks, layer upon layer, we will lay,
Till the top is as tall as the trees.
As it grows we leave gaps for some glass,
That the sunlight in splendor may stream in,
It has views o'er the vale and the valley,
With its polish and paint it looks proud,
And we know we have nothing neglected. 121

To some educators, this idea of integrating values with content may seem rather obvious, but very often in schools,
content material is chosen to fit with the curriculum, or the appropriate reading level of the students, but not a lot of attention is paid to the "suggestive impact" of this content in terms of promoting certain values. Because the teacher may be unaware or unconscious of the suggestions made by certain content material does not mean that students do not pick up on those underlying suggestions. One issue that undoubtedly arises when exploring the issue of values in education, assuming that the teacher and the curriculum, as well as the organizational structure of the school are embodiments of certain values, is: What values, and whose values should be suggested to the children? In Waldorf Education, such a question has really been addressed by the formation of the school itself around a central, holistic philosophy of human development. In the realm of public education, as a parent, one may not be sure about what kinds of values are being suggested to the students, indeed, even teachers themselves may not be aware of the kinds of values they are imparting to their students. Parents of children in Waldorf Schools, for the most part, choose the Waldorf School because of its commitment to a certain body of values, and teachers trained in Waldorf Education work to be more and more aware of the values they hope to impart to their students, and work to create lessons that support those values.

Since the values of the Waldorf School are, by design, intrinsically integrated into the curriculum, methods and
philosophical approach of the teacher, it may appear that the children have no real choice in terms of the values to which they are being subjected, or that they are not being encouraged to engage in critical thinking about value issues. Waldorf philosophy questions the assertion that young children are equipped with the tools to make abstract critical judgements about their experience, or that they necessarily should be involved in making such judgements at an early age. According to the Waldorf approach to child development, young children will eventually develop a more balanced integration of intellect, feelings and will if they are first allowed to subjectively explore the experience of absorbing and interacting with new information without being asked to critically assess it through verbal intellectualization and objective distancing of themselves from the information. In the upper grades (7-12) when the students are developmentally more prepared to engage in objective critical thinking, the Waldorf curriculum is presented in a way such that students can engage more in critical analysis and evaluation of ideas and explore value-related issues on more of an abstract, verbal level.

Psychologist Rollo May recognized that: "Creative processes bring the intellect, volitional and emotional functions all into play together; creative behavior is a process of actualization, a process involving a realistic encounter with a problem, intense absorption and involvement
and heightened consciousness or awareness and the ability to inter-relate.\textsuperscript{122}

The Waldorf School supports the development of creative processes in the child as it works to integrate emotional development with the development of the will and the intellect. By means of long-term student-teacher relationships which serve to foster an environment of psychological safety, a system of evaluation of student work which allows for encouragement in the child's first attempts at creative projects and products, therapeutic work with color and interpersonal, symbolic and emotionally challenging exercises in painting, story-telling and drama, the groundwork is laid for helping children to actualize full potential for creative behavior.

\textit{Developing the Skill of Responding}

When asked "What is Creativity?", psychoanalyst Eric Fromm replied: "It is the ability to see, to be aware, and to respond."\textsuperscript{123} The final stage in Klein's sequence of developmental skills related to creative behavior is termed "Responding". Probably the most crucial skill connected with behaving creatively, responding is a progressive
step that needs to be understood as an incorporation and culmination of the preceding processes of perceiving, feeling and thinking. As Klein states: "only by acting on the emotions generated by the cognitive, based on the perceptions, can one increase one's behavioral boundaries." 124

Klein defines a person who responds creatively as one who is working on increasing his "response-repertoire" when situations call him into action. Behaving creatively, as Klein qualifies it, means 1) maximizing the options one has available (the response alternatives), 2) maintaining the freedom to respond unconventionally, 3) deferring judgement in order to consider possible alternatives, 4) developing a flexible value system, 5) remaining action-oriented, not hesitant, 6) being sensitive and aware of one's self and environment, 7) taking responsibility for actions, 8) having an optimistic orientation, 9) taking risks, and 10) remaining open to new elements of experience. Klein's qualities of creative behavior correspond to results of numerous studies about the characteristic traits of creative individuals, and also overlap with Abraham Maslow's (1954) common characteristics of the self-actualized individual.

As has been illuminated in this chapter's sections on Perceiving, Thinking and Valuing Skills, Waldorf Education has taken the initiative to support the development and integration of these three kinds of skills in children, leading
them ideally to a place where they have the tools necessary to respond creatively. The questions that now arise are: In what ways does Waldorf Education encourage children to move beyond perceiving, thinking and feeling in order to engage themselves with aspects of their physical and social environment in creative ways? How does Waldorf Education promote a sense of creative responsibility and action in students? The answers to these questions is the subject of this last chapter section.

Responding and the Will

Dr. Otto Rank is one psychoanalyst who has pioneered much study into an aspect of human nature which has been referred to as "the unknown and neglected factor in modern psychology, psychotherapy and education" - the will. Rank has explained that "the human being experiences his individuality in terms of his will, and this means that his personal existence is identical with his capacity to express his will in the world." 125

In Waldorf Educational philosophy and terminology, the development of a child's "will forces" is linked to that child's ability to respond, to take action, to exhibit initiative in the external environment. Dr. Roberto Assagioli, whose work in the field of Psychosynthesis has revealed much about the qualities of human will, describes how we might
recognize the will:

The simplest and most frequent way we discover our will is through determined action and struggle. When we make a physical or mental effort, when we are actively wrestling with some obstacle or coping with opposing forces, we feel a specific power rising up within us - this energy gives us the experience of willing.126

In the same way that thinking involves input from the motoric, affective and cognitive aspects of the human being, willing is not a skill that can be dissected from the whole nature of the self. The whole human being, hands, head and heart, as Steiner described it, is necessarily involved in the process of willing. One must picture something in one's mind, and feel something in order to take action.

The Development of the Will

During the first seven years of a child's life, the foundation is laid for the development of a strong and healthy will. According to Rudolf Steiner's description, the will forces in the human being have a dual nature - physical and psychical. The physical will lives in the limbs, the blood and the metabolic system (stomach, intestines, liver) of the body, and is for the most part, sleeping or unconscious force. In other words, we do not know how we raise an arm, digest our food, or speak words with our mouth, yet these things happen all the time. The will forces, however, move beyond the physical organism in their capacity for influence, and
it becomes the case that will forces themselves may be em­powered through the emotions, or through thoughts.

It is not our physical strength alone which determines our deeds. It is we who can be controller of our strength. Our ability to perform and carry through what we have determined depends upon the guiding motive. In some cases, great love or fear impels human beings to deeds of which they are incapable according to the normal standard of their strength. 127

In addition to acknowledging the power of the emotions to affect the will, Steiner asserted that one's connection to the "spiritual unconscious" or the way in which one feels a connection to the universe as a whole, instead of separate from it, has an enormous impact on the development of a healthy will.

Never will a man's will develop healthily if he is unable in childhood to receive spiritual impulses deep into his soul. How a man feels his place and part in the universal whole - this will find expression in the unity of his life of will. 128

Steiner explained that in every individual there is an instinct­ive sense of connection between oneself and the universe, an intuitive sense of meaning and identity. In accordance with this same idea, depth-psychologist Carl Jung discovered that neurosis is not based upon frustration of the sexual instinct, but upon frustration of the spiritual instinct. It has been recognized that healing takes place when an individual makes contact with the "universal whole" or "collective unconscious" as Jung termed it. As many practitioners of the expressive therapies are learning, art, music, creative movement and dramatics, storytelling and dream images are our links with
this unconscious realm, and provide the key for healing and transformation on a deep level.

In Waldorf Education, artistic activity is practiced not only to develop the child's powers of observation and motor skills, but also to develop and strengthen the creative feeling and will forces of the child. Art is an experience that makes use of unconscious images and symbols, an experience of doing, making and carrying out in active terms what has been deeply perceived, thought or felt. Another essential element here is giving children the message that this artistic activity in which their expression comes alive, in which their creative wills are engaged, is an activity inextricably related to life, to literature, to science, to history, to mathematics! The Waldorf approach, because of its emphasis on integration of the arts into all subject areas, the view of teacher as artist, and the value and respect paid to the arts certainly validates for the child the connection between artistic endeavor and creative response to life in general.

In conjunction with practicing artistic activities, the development of a child's will in Steiner's terms requires involving a child in activities of a rhythmical or cyclically repetitive nature. It is recognized that the child may not consciously understand the impact of these exercises, but the young child does seem to almost seek out repetition and rhythm in his activities, rather unconsciously. Such repetition
is not seen as a matter of giving the child verbal rules about what to do, but instead actually involving the child, repeatedly in doing the exercises. The actual practice of doing is what has an effect on the will.

These exercises might be likened to muscular exercises in gymnastics for the purpose of developing muscles and enhancing the neuro-muscular coordination of the whole body. Other philosophers and psychologists who speak about the will also offer advice about engaging in such repetitive exercises. The assumption here is that it is best to exercise the will as an independent function, by performing deliberate, specific acts which have no other purpose than the training of the will. William James presented this idea in his book, Talks to Teachers where he says:

Do every day or two something for no other reason than its difficulty, so that, when the hour of dire need draws nigh, it may find you not unnerved and untrained to stand the test. The man who has daily inured himself to habits of concentrated attention and energetic volition will stand like a tower when everything rocks around him.

In the same way, teachers at the Waldorf School work with students on handwriting, form drawing, recitation of verse, rhythmical body movements and activities using beat and melody for the purpose of developing the will. The emphasis is on concentration, precision and effort to improve the quality of one's own work. In advising Waldorf teachers, A.C. Harwood writes: "Both the single day and the whole year should be full of rhythmical repetition. Repetition is an exercise of
the will and strengthens those very qualities on which initiative will later depend." So the value of repetition is not only seen in terms of isolated classroom exercises, but in terms of yearly festivals and seasonal celebrations, and in terms of the Spiral Curriculum design as a whole.

Educator Emile Jaques-Dalcroze, in *Rhythm, Music and Education*, also instructed teachers on the subject of rhythm: "Man instinctively feels rhythmic vibrations in all his conscious muscles; that is why it behooves a teacher to train through and in rhythm the whole muscular system, so that every muscle may contribute its share in awakening, clarifying, moulding and perfecting rhythmic consciousness." The value of this practice of rhythmical repetition can be even more deeply appreciated if one views it as a way of teaching the child to find, feel and know patterns. Repetition is pattern-making, which is a pre-requisite to pattern-finding, both of which are foundational elements of abstract thought, generalization and creative ideation. The child begins, however, to first discover patterns on the most concrete level—through the physical body. Eventually, through a process of experiencing external rhythm, the individual may become attuned to the more subtle, internal rhythms of the creative process.

The whole idea of rhythm awareness elucidates another important principle of Waldorf Education—the principle of teaching children from a perspective of "movement to rest", 


"will to intellect" or engaging students first on a whole body, multi-sensory, experiential level before introducing the more abstract concepts. This principle recalls the idea that one's whole being, body, mind and heart is involved in the understanding of concepts, and that one should make use of all one's powers of sense and observation before drawing conclusions intellectually.

The Development of the Social Will

The development of the will of the child also involves the development of a sense of community and social responsibility: knowing how, when and where to take action.

In Waldorf Education, many subject areas have objectives which relate to the development of these skills. For example, in the Eurythmy class, the exercises have been described as "visible speech" and "making visible of the activity of listening." In Eurythmy, certain designated body movements correspond with certain word sounds, and so as a poetic verse is spoken aloud, the participants move together as a rhythmical whole. In order to maintain a balance of movement, breathing and coordination as a group, the individual participants work to develop a sense of watchfulness of the other, a give and take of space, and a sense of spatial sensitivity. In this way, the eurythmy exercises help to develop the individual's sense of the community as valuable, and expand the
role of the individual as contributor to the whole.

Another way that Waldorf Education fosters a sense of community and social responsibility is through involving students in work that is related to the development of the school community or work skills that relate to particular subjects of study. Students in the sixth grade class, for instance, might have work assignments that keep the classroom space organized. As a group, they clean desks, sweep the floor, clean the blackboard and erasers, care for the class plants and flowers, and arrange the room for the next day's activities. Once per year, each class lives at a farm school for a week, where they learn to do the work necessary to care for the farm animals and crops, and tend to the daily chores. Students also may work alongside the community of teachers and parents to support seasonal celebrations or performances that the school sponsors for the community, such as the May Fair or Michaelmas Festival.

The theme of Waldorf School Handwork classes is to emphasize the beauty as well as the usefulness of products the students create. Students learn to knit a case for their musical instrument, sew and embroider their own pair of eurythmy slippers, make work aprons for use in clay-modelling, or gardening, and sew hand-glove puppets for performances in Main Lesson. The work students perform in school is designed so that students recognize its usefulness and see the outcome of their efforts as worthwhile.
To say "I will" and to take action in one's social or physical environment is certainly risk-taking behavior, an affirmation of one's self and one's impact on the world. E.P. Torrance, among many who have studied creative learning environments, suggests that if external evaluation or judgement is made too soon, or too often on the efforts of an individual, further risk-taking action may be stifled. In the Waldorf School, children's work is not formally graded until the upper grades, although teachers do send written reports about the child's progress to parents, make suggestions for improvement and encourage each child to do his best. Students are not tracked according to ability, but are grouped by age, and since the skills required during the course of a whole day at the Waldorf School vary significantly, children are encouraged to help one another. Deferring judgement about creative responses until children have had time to build a sense of confidence may contribute to their feeling of freedom in responding creatively.

One last aspect of Waldorf Education that relates to the development of social responsibility is the recognition of the importance of role models. In order to believe that it is possible to be courageous, to take responsibility for one's actions and to maintain inner strength and confidence, children need significant others to act as role models. Besides the commitment of Waldorf teachers to these ideals, an important curriculum tool is the use of biography - stories of
the lives of creative individuals who overcame obstacles and met such ideals in all fields of endeavor. In the words of long time Waldorf teacher Rene Querido: "through the biographies of great men and women, children have a sense of the transforming element that people can bring to the world. With these examples, students begin to respond to the needs of the world and expand their perspectives beyond their own personal and immediate needs". The fact that the Waldorf Curriculum draws historically from many cultures and traditions, (see description of the History Curriculum) and engages the children in understanding how people of other ages and value systems actually experienced social reality, provides children with opportunities to develop flexible value systems based on more than one way of looking at human life and its relationship with nature.

As these examples show, through the vehicle of Waldorf Education, students are called to increase their "response repertoire". Although children of all different temperaments will respond in ways particular to their individual qualities, there is a conscious effort made by Waldorf teachers to strengthen and challenge the will forces, balancing them with the child's qualities of thinking and feeling. The development of the will is not encouraged at the expense of the child's abilities to perceive, to think or to feel. As Gowan suggests in Development of the Creative Individual, "the process of receiving, responding and valuing is a significant
part of learning to feel social responsibilities about things, events and persons." 133

As the four sections of this chapter reveal, the goals and methods of Waldorf Education support the developmental skills of Perceiving, Intellecting, Valuing/Feeling and Responding, as Klein's Model of Creative Behavior outlines them. Although Waldorf Education is based on a distinct set of values and assumptions about human development that transcend the outline of Klein's model, educators who find themselves concerned with encouraging creative behavior in students and developing students' abilities to perceive, think, value and respond in creative ways, have much to gain from a close examination of the methodology of Waldorf Education and the work of Rudolf Steiner.
Educators who find themselves concerned with establishing curricular goals and methods and designing learning environments that encourage creative behavior in students may be interested in selectively integrating some of the insights or ideas of Waldorf Education into their own art of teaching. For the purpose of illustrating some ways in which Waldorf Educational methods or ideas may be applied in a more traditional school setting, this chapter will outline and describe a number of sample lesson plans as part of an Eighth Grade Social Studies Unit on United States Government. Although the unit topic is Social Studies content-oriented, suggestions of an inter-disciplinary nature will also be included, so that ideally, a team of teachers in a variety of subject areas could work together around a certain concept theme.

Developing a Unit Theme: Begin with the Child

In Waldorf Education when making preparations for a unit or lesson plan, a teacher begins by recalling the needs of the child at that particular age and stage of development.
Young adolescents, for example, eighth graders (ages 13-14), are beginning to become aware of their individuality in a number of new ways. Physical maturity is developing alongside a new mental awareness. A sense of personal power is unfolding, and they begin to discover who they are through opposition—questioning authority and testing limits. The ability to engage in intellectual abstraction is emerging, yet there is an apparent need for concreteness, structure, organization and rhythm of activities at the same time. The eighth-grader wants to feel a part of the educational process, wants to have options, make decisions, maintain a sense of independence. At the same time, there is a strong pull toward being accepted, merging into the peer group, not wanting to be perceived as too different. The idea of nationalism as a social phenomenon, or the feeling of belonging to a group united by common ties and identified with a particular territory almost seems to apply here, for the power of the group is an important issue for so many adolescents. Dealing with the issue of nationalism on a larger scale, as part of a Social Studies unit, for example, one might find many pertinent examples from students own experience about positive and negative effects of nationalistic sentiment.

In Waldorf Schools around the world, teachers vary the curriculum according to the school's and the children's own cultural context, but in many American Waldorf Schools, the eighth-graders study the Development of Western Civilization,
including the French Revolution, the Industrial Revolution and the American Revolution. The theme of revolution and the forces that surround it: conflicts of interest, differences of values, divisions of power and authority, struggles for leadership, are forces relevant to the eighth-grade experience. The motivating idea behind a unit, then, is based on the social, physical and psychological issues the child is confronting. The question a Waldorf teacher asks herself in planning is: How will this unit help the child to adjust, to move through this particular phase of development in a healthy way?

The Rhythm of Lesson Planning

In describing how to organize the teaching of a series of lessons so that they involve the whole child, intellect, feelings and will, Rudolf Steiner designed a rhythmical sample of the way in which a series of history lessons might be organized.

The first day is one for the fundamental exposition and imaginative, descriptive elaboration of the subject at hand. This lesson is primarily teacher-centered, designed to engage the senses, intellect and curiosity of the child. For instance, the teacher may use the dramatic story-telling approach, complete with props and background music, almost as an artistic performance for the children. While the children watch and listen, their feelings are engaged through the
use of imagery and the teacher's ability to create a certain mood, through the use of movement, voice and presence. The following day in class, after the children have had a chance to "sleep on" the material, the content of the previous day's class is re-awakened in a revision and discussion of what happened. This process of recall and revision gives students practice in learning to observe, retain, sequence and organize information, as well as skill in speech, oral presentation and finding words to describe their feelings. On the third day, creative work of some sort, written or artistic, should bring the lesson into a relationship with the action or will of the child.

In this way, a history lesson can go through a deepening, beginning with an imaginative whole, entering a second phase in which feelings and individual response predominate, and finally coming to expression in purposeful action. The time between lessons is a crucial element in this process of deepening. Thus, Steiner's suggested rhythm sequence involves orientation to the subject, immersion and response to the subject and finally acting in creative, will-oriented ways in order to apply the content material.

The U.S. Presidency: Unit Theme
Objectives and Organization for Relevance to the Eighth Grader

In developing a unit for eighth-grade students in the Acton-Boxborough Regional Public Schools, I have worked within the framework of the standard Social Studies Curriculum, but
I have modified it in an attempt to apply many of the Steiner recommendations. My goal was to create curriculum that takes a holistic approach to the fostering of intellectual growth and one that is developmentally appropriate to the eighth-grade student. Specifically, I have incorporated the use of imagery as a way of tapping the creative unconscious, constructed various inter-disciplinary connections, and approached the development of affective qualities through the use of water-color painting, drama and story-telling. There has been provision made for the challenging of the children's will forces through engaging the body in difficult content-related tasks, as well as an intention to establish continuity from lesson to lesson. At the same time, I have retained major thinking and study skill objectives as well as the general time guidelines of the standard Social Studies curriculum.

The unit topic under exploration is called: The U.S. Presidency, the first of a three-part series called U.S. Government-Presidency, Congress and the Supreme Court. The U.S. Presidency unit fits into a year-long curriculum course entitled "People in Society" which includes units in Sociology, Comparative Cultures, United States Government and Economy. The unit has been traditionally designed to introduce students to the workings of the Executive Branch of United States Government and the roles of U.S. President as leader and decision maker. Content of study includes roles, powers and qualifications of the President, basic information about the workings
of the Federal Bureaucracy and the evaluation of Presidential leadership performance. Beyond content material, the unit provides opportunities for students to practice a variety of thinking and study skills: developing point of view with supporting evidence, inferring values, generalizing, decision-making, notebook organization and practice of reading and note-taking skills.

Since, in a public school system, the curriculum outline is usually set up ahead of time, I will work in reverse, so to speak, to focus on elements of this unit topic that have particular relevance to the eighth-grader, as Waldorf Education suggests. It will be around these elements, then, that I weave the curriculum contents and make a choice of appropriate materials. The origins of the human need for leadership and organized government, that were sparked by human conflict and chaos might be one topic that would appeal. Another might be to examine different ways of using power and authority or to practice the process of weighing alternatives in decision-making. All of these focal points have a certain relevance to the eighth-graders' struggle in the physical, social and emotional sphere, and have the power to capture their full attention, being related to their immediate experience.

In keeping with Waldorf philosophy, it is crucial to maintain a balance between thinking, feeling and willing activity when outlining learning objectives. It is necessary then, in cases where objectives are primarily "cognitive", 
to alter some parts of them and weave elements into lessons which engage students' feeling as well as their physical bodies and intellecting capacities. Modification of both goals and objectives clearly produce consequences for instructional activities. In R.D. Klein's terms, the curriculum content of this unit provides an opportunity to encourage risk-taking, to work with imagistic information in the form of symbols and metaphors, and to develop non-verbal communication skills, an opportunity to develop creativity. To involve students in perceiving, affecting and responding as well as intellecting, activities other than discussion are required: we might make use of sense-awareness or observation tasks, dramatic role play, speech and dramatic presentation, artistic projects or social-interaction activities like group games or task-oriented assignments. These kinds of activities will allow students to come into direct contact with actual problems they identify and assess relevant evidence. Students will be challenged to recognize patterns, make connections and generate their own solutions; all crucial to creative ideation.
Sample Lesson Descriptions

Lesson One
Exploring the Origins of Leadership and Government

Lesson Objectives:

1. Students will identify executive, legislative and judicial tasks of any government.
2. Students will develop cognitive and personal flexibility through role-taking activity.
3. By means of painting and writing, students will propose a plan or solution to solve a particular problem in government.
4. Students will compare and contrast human and baboon social organization and types of government (after viewing the film by Jane Goodall, Baboons of Gombe).
5. Students will imagine and feel personal consequences of government on lives of tribe members in the story The Strength of the Strong.
6. Students will develop a definition for leader and government.
7. Students will feel and describe human motivations for forming a government.
8. Students will be able to tell the story The Strength of the Strong in their own words.

Materials Needed:
Story - The Strength of the Strong, by Jack London
Watercolor paints/pastels and paper
Props and costumes for role play
Procedure:

1. Students are asked the question: How and why do you think government first began? Students hypothesize answers to the question, based on their own experience.

2. Students take turns reading the story *The Strength of the Strong* aloud. This story was chosen for its imagery and use of symbolism and its particular appeal to the eighth-graders' sense of psychological conflict and struggle for power. It is a story that takes place in a pre-historic wilderness, and describes how the need for government first originated out of a sense of violent, chaotic lawlessness within a single tribe of people, and how that scheme of organization allowed that tribe to become more successful in defense against their enemies. The story also alludes to the role of government in helping to build a system of common language among the tribespeople, as well as its role in the advent of agriculture and the transition from a hunting and gathering economy to a more settled, farming community.

3. On the following day in class, students re-tell the story for the benefit of the class as a whole. The last scene of the story is left incomplete on purpose, so that students may then create paintings or pastel drawings of that last council meeting of the tribe, and as they are re-creating that scene, to imagine and describe in writing the details of the final decision made at that meeting, speculating about why that decision was made, and the impact of the decision on the lives of the tribespeople.

4. Using a few different endings for the story based on students ideas, students take roles of the tribe members at the final council meeting and act out various endings, stopping for discussion on the group process.
Questions for Thought

The Strength of the Strong

1. How is the Fisheater Tribe (before they learned the Secret of Strength) like the baboon society we studied earlier in the year?

2. How is the Fisheater Tribe different from a baboon troop?

3. Give two reasons why the Fisheaters decided to form a government.

4. Describe two personal consequences of the decision on the lives of tribe members.

5. List three basic human needs met by the institution of Government.

6. What influence did the development of language in the tribe have on Government? How did government influence human language?

7. How did the establishment of Government influence the economy of the tribe? How did the economy influence government?

8. What was the "SECRET of STRENGTH"?

9. What is a government? What is a leader?

10. Design an unusual symbol to represent the Executive, Legislative and Judicial tasks of government.
4. Homework - Students answer the "Questions for Thought" worksheet, relating origins of government in human society to study of baboon society (leadership, norms, social roles) completed earlier in year. This provides continuity between unit topics and invites making connections between topic areas.

Lesson Two
Presidential Decision-Making

Lesson Objectives:
1. Students will make connections between unlike characters—fictional and historical figures.
2. Students will be involved in researching and applying information about the life and major decision of an American President of their choice to a Panel Discussion activity on Decision-Making.
3. Students will develop personal and cognitive flexibility through role-taking drama.
4. Students will make meaning of symbols in the story The Flying Machine, by Ray Bradbury and make use of symbols to construct dream images.
5. Students will make use of historical information and creative imagination to predict and act out the role of their President in Panel Discussion.
6. Students will develop and analyze a process of Decision-Making.

Materials Needed:
Resources and reference materials on the lives of Presidents of the United States and great presidential decisions.

Story - The Flying Machine by Ray Bradbury.
Procedure:

1. After doing research on an American President of their choice and a major decision made by that President, students will hold a panel discussion where each plays the role of his/her President, simulating his appearance, mannerisms, ways of speaking and political points of view. Acting in the presidential role, each student describes a major decision he had to make while in office and the process by which the decision was made. Students may ask questions or make comments on each president's description.

2. Following the panel discussion, students dramatize in class the story *The Flying Machine*, by Ray Bradbury. This is a parable about a Chinese emperor who faces a crucial decision of how to deal with the inventor of a "Flying Machine" which would allow human beings to fly over the Great Wall of China. The emperor decides, for the safety and well-being of his kingdom, to put the inventor of this amazing machine to death, and destroy the invention. After students act out the play, they are to infer what their President would have done had he been the emperor in the story, supporting their claims with examples and information from their research.

3. Follow-up assignment: Have students describe through writing, drawing or painting, the details of a dream their President might have had the night before making his momentous decision. Make use of relaxation techniques, guided imagery and specially selected relaxation music to create an environment where students may simulate this dream experience. Students may later wish to share or discuss symbolism in their dream creations.
Lesson Three
Identifying and Encouraging Qualities of Leadership

Lesson Objectives:

1. Using information gathered in research and class panel discussion, students will categorize behaviors of presidents in an attempt to identify a number of "Qualities of Leadership" (i.e. inspiration, magnetism, courage, etc.)

2. Students will use body language, music or watercolor painting to create a sequence of movements, combination of tones, or relationship of colors that will capture the feelings associated with various leadership qualities. For example, if one leadership quality discovered is "determination", what movements, sounds, colors evoke such a quality, so that the performer or observer will feel that quality?

3. Students will propose and carry out a plan, game or activity that encourages certain leadership qualities or calls participants to practice using those qualities.

Materials Needed:

Musical instruments, watercolor paints and paper, a collection of odds and ends which will spark ideas for game-making.

Procedure:

1. Students generate "qualities of leadership" common to past presidents (making generalizations).

2. Using movement exercises, students design body poses that reflect certain qualities of leadership, while other students guess which qualities are being portrayed.

3. Some students may listen to various selections of instrumental music, and through the process of discriminating the mood and intensity of the selections, associate a
piece of music with a particular leadership quality. Students who play certain instruments may create selections with a certain leadership quality "mood" to it, while other students listen and guess the quality that is being portrayed.

4. Through watercolor painting or storytelling, some students might develop paintings or stories or some combination of the two, around the theme of certain leadership qualities.

5. Once students have a grasp of the kinds of human qualities that make a person a capable leader, a homework assignment might be to devise a game or activity that would require a player to develop one or more of these leadership qualities. After the games have been designed, students can play each other's games and make inferences about the leadership qualities required to play each.

Lesson Four
Designing Solutions to Presidential Problems

Lesson Objectives:

1. Students will use the technique of brainstorming to generate a list of problems facing the current President of the United States.

2. Students will apply a problem-solving or decision-making strategy in order to design a solution to a specific problem facing the U.S. President.

3. Students will apply information about the Constitutionally defined powers of the President and the traditionally defined roles of the President to their problem-solving or decision-making process.

4. Students will cooperate as a group in order to define evaluation criteria for problem solutions, and to evaluate the solutions.
Materials Needed:

- Textbook - *Presidency, Congress and the Supreme Court*
- U.S. Constitution, resources on methods of problem solving

Procedure:

1. Students brainstorm list of major problems confronting the U.S. President as Chief Executive: i.e. unemployment rate, budget deficit, threat of nuclear war, inflation, re-election, inefficiency of Federal Bureaucracy.

2. Using information about the powers of the U.S. President as defined in the U.S. Constitution, and the traditional roles of the U.S. President as described in the textbook, students will be asked to select a specific problem from the brainstormed list and acting as U.S. President, to design a solution to the problem.

3. Class as a group decides on five characteristics or criteria on which problem solutions will be judged, (i.e. economy, humane-ness, etc.) and class later assigns evaluation points to solutions.

4. In class discussion of solutions students will be asked to consider the kinds of feelings the problems promote in individuals of American society, as well as the kinds of feelings their solutions might promote. As a culminating kind of activity, students could work on writing poems in which they incorporate symbols or find metaphors for the difficulties of the problem-solving process, or the limitations or possibilities available for a person in a position of authority, like the U.S. President.
Lesson Five
The Federal Bureaucracy and the Application of Pascal's Principle

Lesson Objectives:

1. Students will hypothesize, design an experiment and draw conclusions from results about what happens when pressure is applied to liquids in enclosed spaces.
2. Students will compare the laws of pressure in the physical sciences with the workings of social institutions such as the U.S. Executive Branch.
3. Students will hypothesize about how Pascal's Principle (the principle that when pressure is applied to a liquid contained in a closed vessel, the pressure is transmitted equally in all directions) might apply in terms of relationships between people.
4. Students will begin to feel the effects of Pascal's Principle by acting out the reaction in a group movement exercise.
5. Students will describe personal consequences of such a principle, and suggest constructive ways of using such information if one were a decision-maker for the U.S. Executive Branch.

Materials Needed:

Equipment to carry out scientific experiment
Textbook, *Presidency, Congress and the Supreme Court*

Procedure:

1. Ask students the question: What happens when pressure is applied to liquids confined in a closed vessel? Have students test their hypotheses and see if they conclude...
the same as Pascal. Ask students if they can name places where this principle is put to use (hydraulic press, hydraulic lift, barber's chair).

2. Ask students how this principle compares to what happens in social institutions when pressure is applied "from the top". Students will read pages in text on Federal Bureaucracy and hypothesize how Pascal's Principle might apply in this situation.

3. Students act out Pascal's Principle in a large group, imagining that they are the liquid under pressure, and move their bodies accordingly. Students explore how it feels to be under pressure, what kind of reactions they had, how they might have reacted differently.

4. Students are asked to describe the personal consequences of Pascal's Principle as applied to a situation like the U.S. Executive Branch. How might people react differently from liquids? In what ways would the reaction be similar? Based on the information they have gained, students are asked to advise a top-level manager or decision-maker in the U.S. Executive Branch in writing, how to best make use of this knowledge in designing the organization of the system, role requirements and relationships between people of higher and lower rank.
Additional Ideas for Inter-Disciplinary Connections between U.S. Presidency Unit and Other Subject Areas

1. **Physical Education:**
   a. Students might play tug-of-war while balancing on stumps or boxes, making an effort to keep their footing. Discuss relationship to Presidency.
   b. Students might build a pyramid with their bodies and later compare their physical pyramid with the organization of the Federal Bureaucracy. How did people feel in different positions?

2. **Physical Science:**
   a. Study of Forces and Motion
      How are forces involved in changing motion?
      How may a single force produce other forces?
      What is the meaning of Power? Efficiency?
      Friction? Inertia?
      What is the nature of Magnetism?
      The idea here is to compare these concepts at work in the physical and social world. Students might use their physical bodies as part of these experiments.

3. **Mathematics:**
   Approach the ideas of balance and power through the study of exponents and the process of balancing mathematical equations.

4. **Language Arts:**
   a. Use of metaphors, phrases and idioms
   b. Persuasive writing; developing point of view with supporting evidence, Comparison-contrast essay.


12 Ibid. p. 257-265.

13 J. P. Guilford, "Traits of Creativity", Creativity and its Cultivation, p. 142-161.


18 T.A. Ribot, Essay on Creative Imagination, (Chicago: Open Court, 1906)

19 M.C. Richards, Toward Wholeness: Rudolf Steiner Education in America (Wesleyan University Press, 1980) p. 11.

20 Henry Barnes, "An Introduction to Waldorf Education", Teachers College Record, 81;3 (Spring, 1980) p. 335.

21 Ibid p. 335.

22 Jean V. Carew and Sara Lawrence Lightfoot, Beyond Bias (Cambridge: Harvard University Press, 1979) p. 38.

23 Henry Barnes, "An Introduction to Waldorf Education", Teachers College Record p.326.


25 Rudolf Steiner, Kingdom of Childhood, (Lectures August 12-20,1924), (London: Rudolf Steiner Press, 1974) p. 29.

26 Henry Barnes, Teachers College Record p. 326.


28 Ralph E. Muuss, Theories of Adolescence, p. 15.

30 Henry Barnes, Teachers College Record, p. 355.
34 M.C. Richards, Toward Wholeness, p. 54.
36 Rudolf Steiner, Lectures to Teachers (1921) (London: Anthroposophical Publishing Company, 1948)
37 Ralph E. Muuss, Theories of Adolescence, p. 192.
38 Henry Barnes, Teachers College Record, p. 329.
40 M.C. Richards, Toward Wholeness, p. 25.

48 E. Piening and N. Lyons, Educating as an Art, p. 8.

49 Ibid p. 8.

50 Ibid p. 8.


52 M.C. Richards, Toward Wholeness, p. 120.

53 Rudolf Steiner, Practical Advice to Teachers, p. 123.


57 Caroline McAllister, "Teaching Creativity Through the Fire Sences", Journal of Creative Behavior, 14;2 (1979)


59 Herbert E. Read, Education Through Art, (New York: Pantheon Books, 1945)


65 Ibid.


67 E. Piening and N. Lyons, *Educating as an Art*, p. 22.


72 Ibid p. 15.

73 Ibid p. 15.


75 R.D. Klein, "An Inquiry into Factors Related to Creativity".

76 M.C. Richards, *Toward Wholeness*, p. 96.


78 Ibid p. 22.


84 A.C. Harwood, *Recovery of Man in Childhood*, p. 30

85 Ibid p. 36.

86 M.C. Richards, *Toward Wholeness*, p. 97.


89 Rene M. Querido, *Creativity in Education*, p. 56.


92 Betty Kane, "The Challenge of Grades 7,8 and 9 with Special Reference to the History of Art". *Education as an Art* 37 (1978-79) p. 12.


97 E. Piening and N. Lyons, ed. *Educating as an Art* p. 144.

98 Ibid p. 104.

100 Rudolf Arnheim, Visual Thinking (Berkeley, CA, University of California Press Ltd, 1969) p. introduction

101 Ibid p. 3.


103 Rudolf Steiner, Education of the Child, p. 36.


107 A.C. Harwood, Recovery of Man in Childhood, p. 76.

108 Rene M. Querido, Creativity in Education, p. 34.


110 R. Amber, Color Therapy, p. 20.


112 R. Amber, Color Therapy p. 171.

113 M.C. Richards, Toward Wholeness, p. 205.

114 E.P. Torrance, Satori and Creativity, p. 96.

115 A.C. Harwood, Recovery of Man in Childhood, p. 75.

116 William Bryant, Rudolf Steiner School Teacher, Falls Church, VA.

117 M.C. Richards, Toward Wholeness, p. 57.

118 Ibid p. 57.

119 Prichard and Taylor, Accelerating Learning, p. 19.
120. Rudolf Steiner, *Practical Advice to Teachers*, p. 71.


131. E.J. Dalcroze, *Rhythm, Music and Education*.


133. J.C. Gowan, *Development of the Creative Individual*, p. 79.

SELECTED BIBLIOGRAPHY

Works by Rudolf Steiner


Steiner, R., Practical Advice to Teachers, (lectures 1919) London, Rudolf Steiner Press, 1937.


References Related to Waldorf Education


Books

Amber, Dr. R. Color Therapy, New York, Aurora Press, 1983.


Dhority, Lynn, Acquisition Through Creative Teaching, LaVerne, California, Center for Continuing Development, 1984.


Getzels and Jackson, Creativity and Intelligence, New York, John Wiley and Sons, Inc., 1962.


Journal Articles and Other References


McAllister, Caroline, "Teaching Creativity Through the Five Senses" *Journal of Creative Behavior* 14;2(Second Quarter, 1979).