Reading in Waldorf Schools, Part II:
Beginning in Flow and Warmth

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Early Reading

When creative human capacities such as imagination are inhibited through misguided educational methods, persons can find it challenging or impossible to realize their fullest potentialities in life. Rudolf Steiner observed that the effects of reading too early combined with "faulty methods," which he was personally spared in his early years, can interfere with a person's destiny. In his words, they "make bodies unfit" physiologically and "harden" them so that the individual spirit "cannot enter fully into the body":

> …It may not be at all beneficial for such a child to learn to read too early. For by doing so something is being blocked for life. …For it is possible to trace back a hardening of the entire human organism…to a faulty method of introducing reading to a child.[1]

In various other lectures, Steiner cites similar effects[2] attributable to one-sided and overly intellectual early reading programs, including:

- Weakening of the breathing process, congestion, and asthma[3]
- Migraine-like conditions[4]
- Overtaxing the [brain's] gray matter, incurring unusual salt deposits[5]
- Diverse forms of sclerosis, such as arteriosclerosis[6]

Steiner refers to these negative effects, however, as "subtle," which probably means that in a strict medical sense they are physically hard to measure, even today with our chemical analyses, MRIs, and other technologies. Each of the indications cited above needs to be examined in more depth to identify correlations with recent findings of other researchers.[7]

Flow

How we are able to extend ourselves into life is intimately connected with how we inhabit our physical bodies and minds as malleable instruments of the spirit and its intentions. Conditions such as premature hardening and fixity, according to Steiner, interfere with the penetration of a human ego into an organism. How a child interacts with and learns from the world can either strengthen her natural instinct to connect, and stay connected, or isolate and cut her off from life. Steiner provocatively states that a major goal of education is to teach a child to breathe properly. Not only does he refer to the physical process, but also to educating a balanced breathing and a flowing in and out of the soul and spirit in relation to the body and the world.

The life-filled nature of young children calls for, above all, imaginative and inspired artistic movement, flow and "breathing" in the educational process. Rhythmic flow promotes connection and growth and helps dissolve the hardening elements and influences to which he refers. To attain fullest expression, the human spirit or ego needs to be able to shape a growing organism that is fluid, permeable, and flexible—and one that also allows it to retain the child's innate spiritual capacity to creatively flow out into the world and be at one with it. According to Steiner's physiological insights, it is no coincidence that our bodies consist of so much water and other flowing elements. The younger a human being, the more she consists proportionally of water, the embryo being mostly water! In speaking of the education of children, Steiner makes a striking correlation between learning and our fluid and gaseous natures. Water and air allow life, warmth, consciousness, and learning capacities to enter and flow flexibly through a child's being in a human, moral way:

> Too little attention is paid by people with a materialistic outlook to the mutual interaction between the soul and spiritual nature and the

> physical body...it no longer has an understanding of the material processes, which it observes only externally, and that it no longer recognizes that a moral element enters the physical...90% of the human body consists of liquid substances which are in constant flow and which, consequently, cannot be drawn in fixed outline.... We are [also] part of the air surrounding us, which is constantly fluctuating within us. And what of the conditions of warmth? In reality we have to discriminate between our solid, liquid, aeriform, and warmth organizations....[If the] human being is a solid organism [as the physiology textbooks misleadingly depict and imply] —if this were really the whole truth, then it would be little wonder if the moral element, the life of the soul, could not penetrate this solid bone matter or this apparently rigid blood circulation. The physical and moral life would have to have separate existences. But if you include the liquid, gaseous and also the warmth organizations in your picture of the individual, then you have a fine agent, a refined entity—for example, in the varying states of warmth for allowing the existing moral constitution to also extend into the physical processes of warmth.... This unity between what is physical and what is of a moral nature. ...It is essential to have this awareness. ... It will enable us to know how to treat the child who otherwise will develop inner opposition towards what it has to learn. It should be our aim to allow our young pupils to grow gradually and naturally into their subjects, and then they will also love what they have to learn. But this will happen only if their inner forces become fully involved in these new activities.[8]

It is essential to [be aware that there is] a unity between what is physical and what is of moral nature.

Accordingly, the path to reading as a culminating cerebral activity does not begin with prematurely hardened, fixed letter outlines of fine machine print but rather with warm and flowing artistic activity that appropriately invigorates and prepares the soft organism of the child in her tender, formative state.

Carla Hannaford similarly stresses the significance of water and flow in the functioning of learning and intelligence:

> [Water] is the magic elixir for learning, the "secret potion" if you will. Water is one of the most important and most abundant inorganic substances in the body. It makes up from 45% to 75% of our total body weight.... Water comprises more of the brain (with estimates of 90%) than of any other organ of the body, with muscles next at 75%, and then kidneys.[9]

Hannaford describes many different ways in which "water assists learning and thought." It plays, for example, a vital role in nerve net development, dendritic growth and the healthy "dissolution of salt," which corresponds with Steiner's concern about the "incurring of unusual salt deposits." Water is also critically responsible for the proper maintenance of cellular polarity that in our mental processing means "faster information processing for higher level reasoning" and "allows selective focus."[10]

> The water/electrolyte balance is so critical to the living system....
>
> High cellular polarity (membrane potential) raises the threshold of sensitivity at the cell membrane, effectively increasing the integrity of the cell membrane by lowering its sensitivity to outside stimuli. Surrounded as we are by a world of stimuli, high membrane polarity gives us a choice. It takes more of a stimulus to activate a nerve impulse, so we can choose what stimuli we wish to focus our attention on and not be distracted by irrelevant stimuli. As we will see, this enhances selective focus for increased learning, strengthens immunity and health, and protects against the effects of external electromagnetic fields.[11]

Healthy breathing of the flowing element of air and oxygen is also another indispensable factor in the learning process, according to Hannaford. She finds it significant that "the brain makes up only one fiftieth of the body's weight and yet it uses an amazing one fifth of the body's oxygen."[12] Such facts can be related to Steiner's statements that a healthy education is really learning to breathe properly and that a weakening of the breathing process and congestion interfere with learning.

Logic (Left) Hemisphere	Gestalt (Right) Hemisphere
Pieces observed first	Whole picture observed first
Parts of language	Language comprehension
Language syntax, semantics	Image, emotion, meaning
Letters, sentences	Rhythm, flow, dialect
Language oriented	Feelings/experience oriented
Technique	Flow and movement
Art (media, tool use, how to)	Art (image, emotion, flow)

Equally interesting are Hannaford's characterizations of the functions of the right or Gestalt brain hemisphere compared to left or logic hemisphere, several of which indicate the importance of flow in learning. Above is a partial list of comparative functions.[13]

Lively six and seven year olds enter first grade relating to the world in a right hemisphere mode. The Gestalt hemisphere becomes enlarged and articulated itself during the ages of roughly four to seven years. In an evolutionary sense, its mode can be viewed as the older one and echoes the consciousness of ancient peoples, which was configured for mythic image and flow in nature rather than logic and literacy. In contrast, the left, logic hemisphere does not typically develop and expand until ages seven to nine.[14] At school age, the conventions and requirements of modern civilization dictate that children learn how to make the evolutionary switch to an increased emphasis on left hemispheric modes of learning. Ideally, they do this in an organic and developmentally appropriate way so that valuable right brain capacities such as imagination are not eclipsed and lost; and so that they can utilize the abilities of both hemispheres and move between them at will via the corpus callosum. Some studies have shown that females are more versatile in using the corpus callosum to go back and forth between hemispheres than are males.

Given this developmental sequence, Hannaford concludes, "The most natural way… for children to learn when first in school at age five and six is through image, emotion and spontaneous movement."[15] This is just what Waldorf education strives for—a balanced development of thinking as picture, feeling, and willed activity—of head, heart, and hands. It seeks to educate children so that they have ready access to all sides of their being and to multiple intelligences. Children then learn to flow back and forth with versatility not just between their cerebral hemispheres but also within their whole bodies and with the world.

On this topic of flow and learning, the work of Mihaly Csikszentmihalyi at the University of Chicago is also interesting. He characterizes very high states of learning, engagement, and performance as "flow." In this condition, human beings become joyfully absorbed in a given pursuit in an extraordinary way.[16] These studies caught the attention of educational psychologists like Daniel Goleman, who developed the idea of emotional intelligence, and Howard Gardner, originator of the theory of multiple intelligences. Goleman believes:

> being able to enter flow is emotional intelligence at its best; flow represents perhaps the ultimate in harnessing the emotions in the service of performance and learning. In flow emotions are not just contained and channeled, but positive, energized, and aligned with the task at hand.[17]

And, later:

> [T]he flow model suggests that achieving mastery of any skill or body of knowledge should ideally happen naturally, as the child is drawn to areas that spontaneously engage her—that, in essence, she loves. That initial passion can be the seed for high levels of attainment.[18]

Gardner, according to Goleman, "sees flow, and the positive states that typify it, as part of the healthiest way to teach children, motivating them from the inside rather than by threat or promise of reward."[19] Such psychological descriptions of the flow state contain many striking par-

allels to how Steiner believes children should experience the learning process with love, devotion, and joy. They become engaged in their whole being and feel a subject right into their toes. Such a heightened state of learning is more than mere self-absorption in an activity but includes the capacity to flow into the whole environment and live into other beings and other objects in a warm, loving, and deeply interested way. It involves being at one with them in consciousness, and learning from and understanding them compassionately from the inside—a capacity Steiner calls intuition.

Warmth

Like water, warmth is another vital flowing element that is at the core of our human nature and of the Waldorf schools' method of education. In a healthy writing and reading process, children need to warm to the letters and words they are learning in order to digest them properly and integrate them into their beings. For this reason, Waldorf school teachers warmly animate the alphabet letters so that they become familiar and lovable friends. (I will give examples of how this is done in part III of this paper.) The children come to love drawing and writing their letter companions. Love is the ultimate human warmth, love that welcomes the incarnating individual into the body and into the learning process in the most efficient and penetrating way. The role played by love, warming, and passionate interest—being fired up, as adolescents say—however, goes far beyond making the learning process pleasant and palatable. Warmth and love are, I believe, the driving forces of human cognition and of its central core, called imagination, the inner image-making capacity of the mind's eye. This is because human beings are naturally designed so that every perception and experience has its image in us and every image is imbued with an emotion or feeling.

In several thought-provoking lectures on the physiology of writing and reading, Dr. Karl Koenig explains and illustrates how the alphabet has its origins in the deeply felt image-making faculty of the human being. As he points out, "Every kind of understanding comes about through images."[20] Image making or imagination is the core function of our human mode of cognition. And, according to Steiner, "the work of the imagination shapes and builds the forms of the brain."[21] These insights correlate with current research.

> Warm love is the main element intended by nature and spirit to make this fused emotional-cognitional learning system function and flow effectively at the performance levels of genius for which it was designed.

Neuroscientist Antonio Dimasio, for example, holds that we translate almost all of our experiences into mental images or mental patterns that are the primary units of our minds. Furthermore, mental images are not just visual, but also encompass "auditory [images], olfactory, gustatory, [and] somatosensory." The somatosensory is a "modality [that] includes …touch, muscular, temperature, pain, visceral, and vestibular [images]."[22] Equally significant, each of our mental images has an emotional component. Neurologically, we cannot just perceive or know something in a neural fashion. We are always moved within—we experience "e-motion"— feel the thing on some level, even if it is not conscious.

> …[F]ew if any perceptions of any object or event, actually present or recalled from memory, are ever neutral in emotional terms. Through either innate design or by learning, we react to, perhaps all, objects with emotions.…[23]

> Virtually every image, actually perceived or recalled, is accompanied by some reaction from the apparatus of emotion.[24]

Certainly on a conscious level we all have evidence of how strong, vivid emotions or feelings cognitively call up and are linked with strong vivid memory images. Emotion and feeling are without doubt major organizers in our cognitive life. Dimasio describes how the flow of our feeling and emotional life is inextricably bound up with the flow processes of our perceiving, knowing, and learning. The multiplicity of images we gather from experiences is integrated and coordinated in a wondrous mental flow process we call thinking:

> The process we come to know as mind when mental images become ours as a result of consciousness is a continuous flow of images many of which turn out to be interrelated.... Thought is an acceptable word to denote such a flow of images.[25]

The currents of this image flow of our thinking, centered in the watery brain, intimately weave together with the image flow of emotion and feeling, centered in our liquid blood and moist breath. Both become connected in the process of learning:

> [A]ssociative learning has linked emotions with thoughts in a rich two-way network. Certain thoughts evoke certain emotions and vice versa. Cognitive and emotional levels of processing are continuously linked.[26]

In my experience, warm love is the main element intended by nature and spirit to make this fused emotional-cognitional learning system function and flow effectively at the performance levels of genius for which it was designed. An education of fear or cold, dry, information inputs, geared to test results, does not make biological, psychological, or spiritual sense, is uninformed, and ignores current neuroscience. It freezes and hardens the flow system and reduces and deadens human potential dramatically, even human electrical potential. It is no coincidence that our mental life is reflected in the beautiful wave and flow patterns of synaptic firings within us. Even on a cellular level we become literally fired up and energized in our thinking, feeling, and doing. This physical firing is not just a nice metaphor for a warm fired up interest on a mental and emotional level but is a part of how we are created as integrated beings of energy and imagination. Hannaford well summarizes in general terms the implications of such neuropsychological findings for education when she concludes:

> Our mind/body system learns through experiencing life in context, in relationship to everything else, and it is our emotions, our feelings that mediate that context. In order to learn, think or create, learners must have an emotional commitment. Otherwise education becomes just an intellectual exercise.... Students who are highly motivated to learn, already possessing an emotional commitment, will learn because they love to learn.[27]

Anchoring the learning of writing and reading firmly in the activity of imagination at the core of human cognition and in the warm energy of deep human feeling powerfully fosters this commitment to learning—one that is educationally woven into the very fibers of a child's being for life.

(In a concluding article, "Reading in a Waldorf School, Part III," I will illustrate and discuss specific examples of various approaches to introducing writing and reading.)

Endnotes

1. Steiner, R. (1988) *The Child's Changing Consciousness and Waldorf Education*, CW 306. 88.

2. Readers are encouraged to study these physiological indications in contexts of the full lectures, which often include example of how to introduce reading in a healthy manner. While he was not trained as a physiologist, Steiner did have an extensive scientific education and kept himself up to date with research in many fields, including the neuroscience of his times. Many of his pedagogical recommendations anticipate the neuropsychological discoveries of the last fifteen years and their enormous implications for teaching children. Steiner strove to anchor Waldorf school methods firmly in physiology and charged the Waldorf school doctor with a vital role in working with the faculty.

3. Steiner, R. (1997) *Essentials of Education*, CW 308. 33.

4. Steiner, R. (1996) *Education for Adolescence*, CW 302. 63.

5. Ibid., 62-63.

6. Steiner, R. *The Child's Changing Consciousness and Waldorf Education*, 86

7. We can conduct some informal research on ourselves individually and observe such ill effects when we experience how our eyes, heads, and bodies feel when we have read and studied too much and too long, say for an examination. We feel too full of something, emotionally pent up, nervous, frazzled, and even burned out. We need to get up, move about, and seek fresh air outside. Motor activities like walking and exercising bring balance and refreshment. Raking leaves can be surprisingly restorative with its rhythmic and satisfying grooming of the earth, the smell of leaves, the sensory feast of everything in surrounding nature. One hour of vigorous activity in the front yard can wipe away the hangover of four hours of work on the computer.

8. Steiner, R. (1988) *The Child's Changing Consciousness and Waldorf Education*, CW 306. 87-88.

9. Hannaford, C. (1995) *Smart Moves: Why Learning is Not All in Your Head*, 138.

10. Ibid., 139.

11. Ibid., 140.

12. Ibid., 146.

13. Ibid., 79.

14. Ibid., 83.

15. Ibid.

16. Csikszentmihalyi, M. (1990) *Flow: The Psychology of Optimal Experience.*

17. Goleman, D. (1995) *Emotional Intelligence,* 90.

18. Ibid., 94-95.

19. Ibid.

20. Koenig, K. (1957) *Camphill Conferences and Seminars on Reading and Writing*, vol.1, 16. Koenig was founder of the Camphill/Steiner communities for the mentally challenged.

21. Steiner, R. (1996) *The Education of the Child*, CW 34. 20.

22. Dimasio, A. (1999) *The Feeling of What Happens*, 318. Interestingly, Dimasio does "not use the word image to refer to… the neural aspect of the process [for which he] use[s] terms such as neural pattern or map." 317.

23. Ibid., 94.

24. Ibid., 58.

25. Ibid., 318.

26. Ibid., 71.

27. Hannaford, C. (1995) *Smart Moves: Why Learning is Not All in Your Head.* 56.

28. Editor's note: "CW" refers to Steiner's Collected Works. This designation often appears also as GA, an abbreviation of the German *Gesammt Ausgabe.*

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