Proceedings published March 2013
kellogg.nd.edu/learning

"This is Not Head-to-Head Education": Whole Child Development in a Waldorf School

Elisa Sobo

Elisa (EJ) Sobo (PhD, University of California, San Diego), professor of anthropology at San Diego State University, is a sociocultural anthropologist specializing in health. She is presently on the editorial boards of Anthropology & Medicine and Medical Anthropology, and she is the book reviews editor for Medical Anthropology Quarterly as well as cochair of the American Anthropological Association's Committee on Public Policy. In the past, Sobo has served as an elected member of the Society for Medical Anthropology's executive board as well as on the Royal Anthropological Institute's Medical Committee in the UK. Her current research examines cultural models of child development as applied in classroom teaching, particularly in the Waldorf or Steiner education system.

Abstract

In the USA today, education is brain-oriented; goals are cognitive, intellectual, and academic. We focus on the head, not the hands and heart. At Waldorf or Steiner schools, however, an integrative approach prevails. This presentation outlines Waldorf education's curricular aims and describes in detail the esoteric developmental model on which these are based. It draws on findings from an ethnographic study being carried out at a large west-coast Waldorf school using unobtrusive classroom observations, individual and group interviews, and surveys, as well as an archival review. In this and other Waldorf schools, learning happens within the child's entire body or being: beyond addressing the task of thinking ("head forces"), the child's feelings ("rhythmic" or "chest forces"), and will ("metabolic-limb forces") are educated. Moreover, learning progresses in a developmentally appropriate way. Accordingly, pre-K and kindergarten curricula focus on helping a child to feel at home in or to fully incarnate his or her body, generally through movement-based activities. Gross motor work is complimented by fine motor work as grade school approaches; handwork (knitting) promotes dexterity that later supports the mechanical mastery of writing. But the whole body still is utilized: for instance, in grade school students clap, jump, and stamp in patterns relating to the times tables they are reciting. Chest forces or feelings, too, are addressed, for example through pedagogical storytelling and wet-on-wet painting activities. Only later will purely cognitive tasks be undertaken. In sequentially addressing the whole child—hands, heart, and head—Waldorf education progresses in tandem with what its founder called "a genuine anthropology" (1996).[1] System proponents argue that Waldorf education's developmentally appropriate holism helps produce balanced, freethinking human beings who feel and behave as if connected to the world in which they live.

[1] Steiner, R. The threefold social order and educational reform, The Renewal of the Social Organism. Great Barrington, MA: Steinerbooks. 1996.

Introduction and Background

Public education in the USA is infamous—rightly or not—for its relatively poor learning outcomes. The recent focus on standardized testing, meant to correct for this, has in fact not had the effects desired. The concurrent decrease in the time students have been allowed for physical activity correlates with lower academic achievement rates (Centers for Disease Control and Prevention 2010; Donnelly and Lambourne 2011). The heightened stress and fear levels that high-stakes testing provokes in children also have undermined the test-centric plan (e.g., Rushton and Juola-Rushton 2008).

Increased recognition of the high academic (and other) costs of neglecting students' physical and emotional well-being has supported a growing call to make more room for physical activity during the school day (e.g., Robert Wood Johnson Foundation 2008). Pushing further, some suggest that we replace head-based public schooling with "whole child" education—integrative education that brings in not just the body but the emotions as well, particularly as regards feelings of engagement. This includes not only feeling connected to school, but feeling connected to the community as well (e.g., ASCD 2011).

Although "whole child" education advocates argue that activities that are not centrally cognitive should be part of a coherent curriculum rather than treated as "separate operations," (Whole Child Initiative n.d.), the general approach to augmenting the cognitive focus in US public schools (where it is tried) does rely on modular add-ons. This is seen, for instance, in recommendations to add "activity breaks" to the school schedule and related concern for doing so without "disrupting" instruction (Alliance for a Healthier Generation 2012).

A more holistic approach is taken in Waldorf or Steiner schools—alternative schools where movement is not confined to break activities and where bodies and emotions, too, are part of reading, writing, and arithmetic instruction. Like many "indigenous" approaches to education, Waldorf bases its methods on a developmental pediatric framework that differs significantly from that of the mainstream. But the framework has Western roots. Because of this, and the fact that Waldorf schools in the USA are private, university-based researchers and education policymakers here have paid it little heed. This situation persists despite the system's exponential growth since being founded in 1919, when the director of the Waldorf-Astoria cigarette factory in Stuttgart, Germany invited scientist-philosopher Rudolf Steiner to organize a free school for the factory's workers' children, and despite the fact that "Waldorf inspired" methods now are

infusing the charter school movement as well (Sagarin 2011). While the public has taken heed—as has the national news media (e.g., Richtel 2011b)—academic professionals are long overdue for a close and careful look at what Waldorf does and why.

Using document-based and ethnographic methods, this paper describes Waldorf education's understanding of child development in detail and then examines how teachers put it to use. The paper identifies classroom practices that might be translated for use in other school settings where "whole child" approaches are valued. It also argues that a corporeal conception of "movement" as bodily action settles for too little; in the Waldorf world view, movement or mobility also must infuse thinking and feeling for children to reach their full developmental potential. This triadic model (thought-feeling-action) stands in contrast to the dualist (mind-body) model that infuses mainstream Western approaches to education.

Methods and Setting

This paper draws on findings from the Healthy Child Development Project, which examines the Waldorf community's health-related knowledge and practices from a medical anthropology viewpoint. Intrigued by the parallels that seemed to exist between this community's view of the body and those seen cross-culturally in the ethnographic record (e.g., Erickson 2008; Sobo and Loustaunau 2010), I began in September 2011 an archival investigation of Rudolf Steiner's lectures and writings to derive a conceptual model of his developmental pediatric framework. My review concentrated on seminal works considered required reading in teacher training (e.g., Steiner 2007 [1919]) and lesser-known works with obvious relevance. I also consulted secondary sources and volumes with commentaries and notes that illuminated particular aspects of Steiner's developmental pediatrics (e.g., Glöckler 2002; Schoorel 2004).

Concurrently, I recruited a large, accredited US Waldorf school providing pre-K through twelfth grade education to host an ethnographic study. In early 2012, after a participatory planning phase undertaken with faculty and staff at the school, two IRB-approved ethnographic components commenced: an interview and survey based Home Health Study, described elsewhere, and an observation and interview based Classroom Study, described here.

Data collection focused on teachers, and included unobtrusive classroom observations in two pre-K and two kindergarten classrooms (grouped together in the analysis, as per teacher recommendations, as "early childhood") and in the classrooms of grades one through three

(grouped together, again as per teachers, as the "lower grades"). Grade three provided a natural stopping point due to the Waldorf position that a new sub-stage of childhood begins with fourth grade. Thus, the project concerns instruction for the four-to-six age range (pre-K/K) and the seven-to-nine age range (early elementary).

The study included eighteen participants (seven lead teachers, nine support teachers, and two staff members in teaching-relevant positions). A minimum of one week was spent observing in each class or grade, accounting for a total of about 175 classroom hours. I also undertook individual and group faculty and staff interviews, using audio recording or pencil-and-paper for data capture as was appropriate. A grounded theory approach was taken, with analysis ongoing during, and informing, data collection (Glaser and Strauss 1967; Strauss and Corbin 1998; see also Sobo 2009). Emergent themes were identified in relation to on-the-ground practices and teacher reflections on pedagogical choices.

Findings were not free-standing. My extensive review of Steiner's framework and Waldorf culture framed them. The analysis was informed also by knowledge gained through my direct participation in the system: I have been a Waldorf parent since January 2009. I therefore have prior familiarity with and the preparation necessary to grasp many aspects of Waldorf education that otherwise would have taken me much longer to parse.

Some have misconstrued my parent status as negating the value of the work. That is illogical. The project follows rationally from my longstanding focus on pediatric health cultures, and it was undertaken with scholarly intent. In conducting research in and on a system in which I have participated, I stand in relation to my topic just as do all public education system researchers whose children go or went to, or who themselves have been educated in, a public school setting. If researcher involvement per se was sufficient to disqualify a project, we would have no public health research at all and certainly no research on eating, sleeping, reproduction, or death.

A real limitation, however, is that the research involved no children. Children's experiences of the techniques to be described thus remain unknown. As well, teacher training was not studied ethnographically. Moreover, data were collected from only one school. Despite programmatic and aesthetic similarities between Waldorf schools around the world, meaningful differences in how the basic developmental pediatric framework is construed and applied may exist. Plans are underway to include other schools as well as teacher training, and to add a child

participant component—but the present paper focuses on findings from the core school and its employees only.

These shortcomings notwithstanding, the paper helps to fill the very wide gap in our scholarly knowledge about the Waldorf system—a gap that is disconcerting in light of the system's increasing popularity of late. As well, the paper provides ideas for how the push to include more movement in schools could be enhanced in other school settings and demonstrates the ethnocentrism inherent in viewing movement as something only physical bodies do.

Findings

Study School

The school that serves as the study site for this ongoing research opened in 1981 with 18 students. Now housed in converted church buildings in the residential section of a run-down urban neighborhood, it serves 280. The ethnic mix of students in 2010 was 4 percent Asian, 3 percent Black or African American, 9 percent Hispanic or Latino, 60 percent White, and 24 percent Two or More Races. Notably, the latter compares to 2.1 percent county wide.

The school does not collect data on household income. However, 166 applications for tuition assistance were received in 2009-10. Average tuition paid that year after financial aid was $6,802. This is much less than the tuition of $16,000 to $28,000 reported for other area private schools (data in author files). A better comparison is to the estimated cost-per-pupil at a typical public school in the area (data in author files), which seems on par, particularly when underreporting is taken into account (Schaeffer 2010).

School fees are comparatively low in part because classrooms house no technology. Each room has mostly wooden furniture. Early childhood rooms have old-fashioned toys, made of natural materials. Grade classrooms have large chalkboards, the borders or frames of which are not linear but rather have been cut in wavy, organic patterns from natural wood. Walls are painted for each class level following the pattern seen in the rainbow, so nursery and kindergarten as well as first grade walls are rosy or pink, second grade's orange or peachy, third grade's yellow or golden, and so on. The colors are built up by washing several thin coats of glaze over a white undercoat. This method, lazure, gives the surface a kind of multidimensional glow. By applying darker or thicker coats at the bottom and lighter ones at the top, the rooms take on an airy, uplifted feeling. All this is typical of Waldorf settings.

Developmental Pediatrics of Waldorf Education

A genuine anthropology

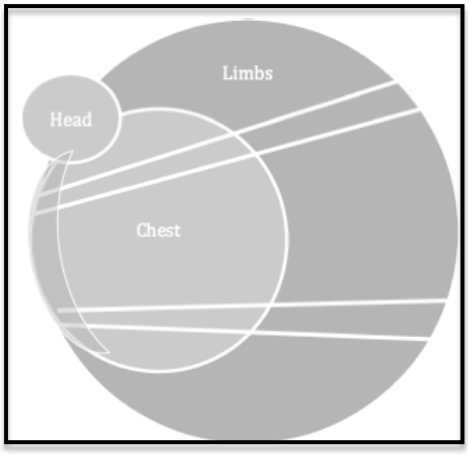
Steiner, a known personae in early 20th century Europe's intellectual as well as spiritualist circles, designed his first school as part of a larger, anti-materialist platform for social reform. As Steiner saw it, state sponsored schools merely served to "mold human beings into the form the state requires for doing what the state deems necessary." He once called state school graduates "serviceable labor machines" and often argued that "a genuine anthropology must form the basis of education and instruction" (Steiner 1996). This "genuine anthropology" entailed a developmental model in which mastery of the body and cultivation of one's feelings or "soul life" support the healthy emergence of free and lively thinking.

Our three-fold nature

In Waldorf educators' view the human body is comprised of three systems (sometimes termed "organizations"): the *head* system, the *chest* or cardio-pulmonary system (also called the rhythmic system due to the rhythmic activity of the heart and lungs), and the *limb* system. The limb system extends somewhat into the abdomen, as it includes non-rhythmic, metabolic organs such as the liver and intestines, and it sometimes is called the metabolic-limb system after this fact.

Figure 1 shows the systems as spheres. This is because, beyond being connected to one another, they also have cosmic connections. The skull sphere corresponds to the vault of heaven as a whole but also to the sun in particular, while the chest corresponds to the moon. Viewed from the side, a person's chest looks like the crescent moon; the invisible portion of this middle sphere is the soul, which permeates the chest or rhythmic organization most of all. The limbs penetrate into the chest sphere; they act as conduits through which soul and spiritual forces from the outer, universal sphere can enter the human being. That a spiritual realm exists is fundamental to Waldorf education.

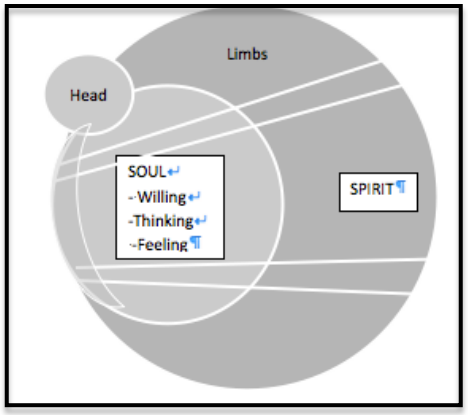
Figure 1. Human Body Spheres (adapted with permission from Steiner 2007, p.142)



According to Waldorf educators, when children first enter the material realm from the spiritual one, all three systems—head, chest, and limb—are immature. A major task of Waldorf educators is to ensure that the three systems, and all that they pertain to, are provided the environmental support necessary for their healthy development. Waldorf educators work in this and many other ways as if health practitioners.

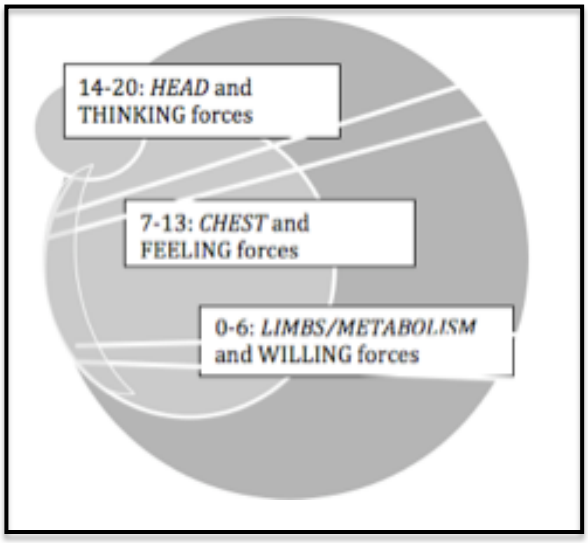
The three organizations express the three modes of engagement that, as per Waldorf education, we use in life: *thinking, feeling,* and *willing*. These are all, Steiner teaches, "soul activities." Although soul forces per se are most firmly at home in the chest, as Figure 2 shows, they permeate our whole being, with *willing* or doing most active in the limbs and metabolism, *feeling* or experiencing most active in the mediating chest, and *thinking* most active in the somewhat distanced head.

Figure 2. Human Body Spheres, Soul Activities, and Spiritual Context (adapted with permission from Steiner 2007, p.142)



In Waldorf education's view, human beings exist not just spatially but also temporally; at different phases in the life course, different systems and so different soul activities dominate. This is reflected in Figure 3. From birth until age six, a time when so much physical growth occurs, the metabolic-limb system dominates as does the activity of willing or doing (following through). From seven through thirteen, we are chest-ruled creatures, with feeling at the forefront of how we engage with the world. And at puberty, our head and other hardened parts, such as the intellect, become mature enough to be put to work. So children progress from being beings of will (0-6 years) to feeling beings (7-13 years), and only afterward (from 14 onward) to being able to begin to really think.

Figure 3. Human Body Spheres and their Developmental Trajectory (adapted with permission from Steiner 2007, p.142)



This triadic model challenges what Steiner saw as the "erroneous conception of the twofold division of the human being" (Steiner 2007, pp.41-42). He viewed Cartesian dualism, in particular, as "one of the great mistakes… of the last few centuries," being particularly concerned by Descartes' identification, in the phrase *cogito ergo sum*, of thinking with being (p.27). Thinking, for Steiner, and his followers today, is actually "*non sum*" (p.27), in that truly freethinking intuits universal truths from the spiritual realm (the biggest sphere in Figures 1-3) rather than to reflect egocentric insights.

Motile Connections

Steiner was not against dualism per se. The problem, as he saw it, was dualism that "pays attention only to the *separation*" (Steiner 2008 [1894]), p.15; emphasis in original). In reality, Steiner taught, life is "a unity" and "a living whole" (xxix). To really explain things is to put them back into the context that we, due to the mechanics of human perception, have to separate them from to grasp them (p.74).

Real explanation or understanding also does not still things: it does not rest on crystallized abstractions or static definitions. Thinking must retain a vital, motile quality lest it become stiff, as if dead, and so bereft of meaning.

Our four-fold nature

Bearing in mind, then, the bottom lines of connectedness and flow, Steiner's fourfold model, which layers onto the three-fold one described previously, bears review. In this perspective, the material or *physical body* is quickened or enlivened by an *etheric body* or life force. We also have an *astral body* or individual soul in which we experience each given life; and a fourth body made up of more universal spiritual forces that endure over our many lifetimes. These bodies help to create and penetrate, in particular ways, our three-fold organization. Human beings thus emerge from and exist within constantly moving currents of cosmic forces.

From the Waldorf education point of view, in the first stage of child development, when *willing* is dominant, the etheric body is also in the forefront. Its work is evidenced in the child's physical growth as well as in the rashes and fevers so common in childhood; during these times, particularly, aided by etheric forces, the physical body is casting out old matter so that it can be wholly remade. The release of the milk teeth evidences a final thrusting out of old, inherited physical material, so that at about seven years the child's body is completely his or her own. The change of teeth also signals the etheric body's own emergence or birth from within the physical body, where heretofore it had been so very busy promoting physical growth. Now, school—and related work preparing the next body, the astral body for its emergence—can begin. And so it goes.

In Waldorf educators' view, as per Steiner's, child development is an *awakening* process. What must be quickened differs by age, as seen in Table 1. Before seven years, what must be awoken is the will, via the limbs, beginning with the *hands*; from seven to thirteen, the feelings

or *heart* should get a teacher's attention; from puberty onward, thinking or the *head* comes to the fore. In keeping with this trajectory, the child's first interest is in the world's *morality* or *goodness*, then its *beauty*, and later on, its *truth*. Modes of engagement begin with physical imitation of what is good, then center mainly on aesthetically fueled imagination, and later on will include judgment.

Table 1. Model of Child Development Used in Waldorf Education

Stage of childhood	*Primary three-fold body system*	*Primary soul force*	*Primary mode of engagement*	*Primary fourfold body*
0-6 years	Limb-metabolic	Willing ("hands")	Imitation	Etheric body
7-13 years	Chest-rhythmic	Feeling ("heart")	Imagination	Astral body
14-20 years	Head	Thinking ("head")	Judgement	Universal spiritual body

Waldorf education does not see these modes, interests, and soul forces as mutually exclusive. Nevertheless, at certain times, some are thought to be in the forefront or ripe for educating. Waldorf teachers are attuned to this.

Classroom Application of Developmental Framework

In the sections that follow, I outline age-appropriate education for the first two life stages, focusing on the years bridging the two (4-6 and 7-9) so that similarities and differences are most clearly seen. A focus on movement in each stage is clear, although what must be moved, and why and how, does differ.

It bears noting here that the cultural understandings underlying Waldorf education's methods are not secret: teachers explain things happily to parents. However, children never receive meta-instruction or meta-messages regarding their lessons. Teachers never say in class "We are doing this *because*." The explication below and the framework above would never be discussed within a child's hearing range. In fact doing so would be damaging to them: it would interfere with the kind of healthfully staged developmental awakening that Waldorf educators strive to offer.

Early Childhood: Ages Four through Six

Educating the will through physical (limb) movement

In the Waldorf view, children in pre-K and kindergarten are still "incarnating," which for many teachers in this study meant "coming down" from "heaven" or "the spiritual realm"—although some preferred to explain this as a physiological process. Either way, as one teacher said, "Most of what we do is to help them come down." All agreed that healthful physical incarnation, achieved largely through active use of the body, is key to academic and other forms of life success.

The work of incarnating is addressed directly in early childhood education's focus on the limbs and thereby the will. No attempt is made of formal instruction at this stage, for this would cause premature hardening of the intellect, leading to inflexible thinking in adulthood. Rather, children are encouraged to play creatively, with their whole bodies.

In the classrooms I observed, furnishings were moved all about, piled up, and turned over as boats, dragons, houses and other structures were created. Often, large silk or cotton sheets were draped on as roofs; blue and green cloths were laid to the side as if meadow grass or water. The children also had access to numerous toys handmade of natural materials (e.g., rounded wooden houses, felt gnomes, baskets of smooth log pieces, pinecone). These were considered more wholesome than manufactured goods; in addition, they were said to provide more room for a child's fantasies than prefabricated, media-driven playthings with pre-existing storylines.

Children played out-of-doors and had contact with nature whenever possible. Classes I observed went out to play even in inclement weather (weather-appropriate clothing is required at the school). Props used in play outside were mainly tools (e.g., watering cans, shovels, buckets) and natural objects (e.g., stones, found bugs, bits of wood).

Notably, the play yard had no balls. As one teacher explained it, kicking at too tender an age could "shock" the foot in a way that keeps the will from penetrating it. The climbing frame was dome-shaped and not too big, but as a rule children never were lifted onto it; nor would they be lifted onto the bars in the "graders'" play-yard when they got there: "When you can get yourself up there, that's when you should be up there," one teacher said. Not helping, she said, helps children build their will: "'I'm going to keep at it until I can get up there!'"

In terms of instruction, teachers leverage what they see as young children's remnant sense of connectedness to everything around them (a legacy of having just come from the

spiritual world) and their related tendency toward imitation (an expression of this communion). Teachers strive to set good examples and engage their charges actively to do as they do: sweeping the path and gardening when out of doors; chopping carrots for soup, sewing, and kneading bread when inside.

The will needs to penetrate the body to the fingertips and toes, and productive work that engages the hands and legs, keeping them moving—digging, sanding, kneading dough, sweeping—is seen as best for this. Keeping the limbs in movement likewise helps to spiritualize the body in a broader sense, drawing in spiritual substance from the universal sphere as shown in Figure 1. This helps the child "incarnate" in a healthful way.

More concretely, Waldorf educators believe that engaging a child in such labor imprints good habits into the child's physical body while allowing children to fully develop proprioceptive, balance-related, and gross and fine motor skills—upon which later learning will depend. Sweeping, for example, allows children to gain mastery in crossing their vertical midline, key to kind of right-left integration that skillful writing demands.

The day's flow

Early childhood teachers emphasize movement but they do so in a rhythmic manner that allows children quiet, inward-facing moments or "inbreaths" (e.g., during meals or at story time) to offset their more active "outbreaths." Use of these terms stems from a literal understanding that breathing connects our inner world with the outer world. This it does through an exchange of gasses, of course, but it also provides a mechanism by which spiritual substance can enter our bloodstream (via the lungs) to permeate us and by which we can keep ourselves earthbound (see (Steiner 2007).

The scheduled and rhythmic alternation during the school day of behavioral inbreaths and outbreaths ensures, in teachers' common sense terms, that children are given time to make use of energy that otherwise might be dangerously pent up, and that their diurnally patterned hunger, tiredness, and so forth are factored in. But, more than that, it is considered seriously health-inducing for children. It contributes to the hygienic harmonization process ongoing between their developing physical-etheric and astral-spiritual sides. It also provides a structural element that keeps the children from wondering too much about what the day holds.

When children do not know what might be next, they feel "tension" and "nervousness," which lead to ill health. Moreover, their young systems can be "shocked" when activities are abruptly altered, causing unhealthful inner "contractions" in their organs. Keeping the day moving through a set and patterned schedule helps avert this.

Environmental cues for flow

Shock also is averted, and a sense of flow reinforced, through décor. Eating and craft tables have rounded corners when possible. Some shelves and even some play furniture have sides that curve and curl. Even the corners of drawing paper are rounded, the square corners quietly cut into curved ones by teachers as children go about other activities. Many of each room's potential angles also are softened with fabric—with light curtains and silk cloths that are draped over some shelf-tops, picture frames, and doorframes.

For example, in one part of a kindergarten classroom, where the cubby nook adjoined the kitchen, the teacher had draped a silk cloth so that it spanned the space, its gentle rainbow-ordered stripes illuminated to a soft glow by the light in the children's cubby area. The silk served as a flowing lintel, and it was surrounded on the sides and top by grey-blue and very light blue silks pushed into cloud formations, so that the rainbow seemed very much to be running across the sky when viewed from the main room.

The goal of rounding corners and providing such softness is to allow the eye to glide across the environment, preserving its movement. Even teacher dress supported this: early childhood teachers and their assistants all wore long, full aprons over flowing clothing, with long dresses preferred to pants. Any pants worn were required to be very wide-legged, like culottes.

The environmental emphasis on non-linear, organic forms was explained explicitly as helping to keep children "in movement." Movement is crucial to absorbing spiritual forces such that organs are properly formed. Billowy cloth and curvy decor thus helps students maintain a healthful state of physical expansion and growth. The need to avoid contraction-inducing shocks also is one reason that early childhood teachers do not yell at their charges.

The Lower Grades: Ages Seven through Nine

First grade readiness: An embodied achievement

At about seven, the child's physical body is thought to be so well formed that the etheric body is free to work as the child's memory; at this time, rudimentary academics can begin. Waldorf educators say that children do have some memory forces prior to entering their seventh year, but memories themselves have to be triggered, for instance by a particular sight. After the etheric body has been freed, children can use its memory forces for forming *retrievable* pictures or ideas themselves. This is why they can play using their visual imaginations now rather than having to collect objects to use as props, which they generally do prior to this stage. Now, imagination proper takes the place of imitation.

First-grade ready children—children entering the second developmental phase—also have learned to integrate both sides of their body at least to some degree so that, for instance, skipping becomes possible. Or, for example, a right-handed child can pick up scissors on the left side of the table with his or her right hand rather than first using the left and then passing the scissors over to the right. These kinds of things indicate that the child now has become "organized"—at least enough so that schooling can begin. This kind of integration is seen as important, for instance, for writing sentences on a page on one's desk; one's hand and arm must move back and forth across one's midline to be able to accomplish this without too much initial frustration (see, for instance, Almon 2004; Foster 2004).

The focus on bodily skills extends into how physical education is handled once children are in the lower grades. Said one teacher, "I'd like the children to master their bodies before they use anything else as an extension of their bodies." This teacher was less concerned with the idea of a "shock" than on the fact that use of equipment (balls, bats, etc.) can impede the development of one's ability to know where one is in space, to balance, and so on.[2]

Mobilizing children's "feeling life"

Once in the lower grades, teaching by allegory joins teaching by example. Teachers strive to provide children with lots of imagery now to drive learning; they use words poetically to create engaging "pictures" that, once children take them into their imaginations, mobilize further

[2] Moreover, the teacher explained, team sports generally have set rules and adult-driven goals, and so children who grow used to playing them are less able to set their own goals or direct their own play.

inquiry or contemplation by fueling a sense of engagement with or connectedness to subject matter. Teachers also aim to leverage the released etheric memory forces. So, for example**,** students are introduced to writing in first grade through painting and drawing activities whereby letters are associated with pictures, which make them more memorable. The aesthetic nature of this approach also is essential, speaking as it does to the child's blossoming interest in beauty.

In keeping with the aim of cultivating healthful "feeling life" in the child at this stage, pedagogic storytelling, in which subject matter is fitted to developmental needs as Waldorf defines them, continues. In second grade, for instance, animal fables predominate, allowing children to objectify and thereby come to grips with animal-like parts of themselves. Stories of saints and heroes who have overcome their own weaknesses to serve others give children role models to aspire to. Note that teachers tell stories from memory, verbally, requiring children to visualize them actively, imaginatively. Teachers do not skimp on details that modern sanitized versions elide.

The curriculum was described by several as "homeopathic," in that topics are matched to the emotional concerns said to be relevant for children at given ages. For instance, in third grade, when children begin to feel very separate from their parents and worry about surviving on Earth as individuals, they study various basic occupations such as farming and fabric-making and they try their hands at cooking and building dwellings.

Summing up this focus on feelings, one staff member said,

> *As a society… we're making education simply about the head. You know: 'They have a brain, and it's our job to maximize the brain's capacity.' But the child is so much more than that, and if you only focus on the head, and you don't involve the heart forces, well that's why you have a whole generation of CEOs who rip off their companies and who steal the pensions of the 250,000 people who work there. They have no heart forces. There's no conscience. It was never developed. We left it undeveloped. And [it's] the same with the will. [Here at Waldorf we educate] head, heart, and hands: we bring the will into action and we corral the will through good work with the hands. So, you could be super smart, you could have all the heart in the world, and [without will forces] you can't get off the couch and go do something good with that… Without all three things, it's an imbalanced human being, isn't it?*

Painting as an example of feeling-oriented teaching

Teachers use many techniques to educate chest forces; "wet-on-wet" painting is one specific example. Painting on a wet page is different from painting on dry paper because of the way that the moisture already on the page facilitates mobility in the paints. This movement is concretely visible as work progresses. Wet-on-wet painting also sets feelings in motion, or spurs motility in the human soul.

From the teacher perspective, painting both brings a spiritual element into the classroom and moves children deeply, fitting perfectly to pedagogical aims for the lower grades. In painting lessons, teachers give children's feelings something to work on. In this, educating feeling or chest forces is somewhat like educating willing or limb forces: the capacity for feeling—and for feeling connected to others and the world—can be enhanced through practice.

A painting class in the grades typically begins with students listening attentively to the teacher explaining who will do which painting related chore (pass out brushes, pass out paints, pass out water, etc.). The teacher gazes at the class to see who is ready—who is sitting up straight, not making a sound, and in some classes who has his or her arms crossed and folded across the chest, hands on opposite shoulders in a "dove wing" or "angel wing" position. While each teacher runs painting slightly differently—in a way that is "authentic" to her or him and that best meets the needs of the students, in his or her view—typically, students deemed ready are given permission to leave their desks to receive a wet sheet of paper. The wet paper is laid carefully on a board which the student takes back to his or her desk; there he or she will wipe away any air bubbles carefully. With all students prepared, the teacher demonstrates the day's painting, generally narrating the painting process with a story meant to have pedagogic value for the children. Afterward, they will paint as the teacher has done, in silence ideally.[3]

Although it is well-established in psychology and anthropology that color-related meanings are culturally relative, Waldorf teachers are trained to view them as inherently meaningful or at least moving, most literally in the ways they cause us (our souls) to expand or contract. These meanings are leveraged in painting lessons, which are process, not product, oriented. This processual dimension is manifest in the way that the paint moves on the wet

[3] While setting up for painting and cleaning-up do take upwards of 30 minutes, painting is not itself a time-intensive affair for all the children despite the purported intensity of its benefits. Demonstrations typically take from four to eight minutes. Children take from about five to ten minutes on average to complete their works (an exception would be when a more intricate painting is assigned and work does get more complex as grades progress; as well, each class had a student or two who tended to take much longer than the others).

medium and the way that the wet sheen on the page gives each work a kind of near-living glow. While watching painting in one class I glanced at last week's paintings hanging on the wall (as the teacher had directed me to do in an after-school discussion we had the week prior). The dried paintings paled in comparison with the lustrous, moist works that the children were just completing (one teacher called dried paintings "dead"). As a teacher explained, students in the lower grades generally are not meant to be painting things per se but rather to be experiencing moods; the teacher's narration during his or her demonstration seeks to highlight this.

One narration I observed concerned a playground situation. Red woke up one Saturday so excited that it ran to the playground, ready to play. "Red loves to be the first one out," said the teacher, "even if others are sound asleep at home. When it's time to wake the others up, red is the first to volunteer: 'let me do it, let me help!'" The teacher painted a red shape on the paper as this story unfolded. The color now changed to yellow: "Yellow loves being with friends more than anything. Yellow comes out when she sees red in the field. Where they touch, they bring another friend." Orange emerged on the sample painting where the two colors met.

The teacher, after washing the brush again, reached for blue: "Blue loves to sleep in, stay cozy and warm and spend quality time having a cup of tea in the morning. Blue is always late getting to play and wants to hang out on the edges, just watching. Red is calling out to him, "Come play with me! I'll calm down a bit!" As the teacher said this, the blue gently reached the red and edged over it a bit. The moisture in the paper and paints helped the colors to merge. "A new friend is coming along. A new friend is purple." The teacher finished the painting, filling it completely with the lustrous colors.

This kind of witnessed narration is meant to provoke feeling. Hands-on work with the paints gives the feelings inner immediacy, and this internality is magnified through the children's quiet focus on the work. Not only does painting thereby contribute to the growing child's sense of connectedness to the world around us, which we perceive via sight in terms of color and movement. It also is said to have a calming effect, and teachers are careful about when they schedule painting; one teacher purposefully does it on Mondays to diffuse leftover weekend excitement.

Another benefit of painting class is learning how to control one's materials to get the color effect one desires. Too much paint creates something too intense; too little, something too thin. Similarly, a brush too wet leads to a situation when colors bleed too easily into one another.

And combining colors makes new ones. Early on, children learn to do this carefully, because overpainting creates mud of the colors. Helping to prepare materials and to clean up also have beneficial effects, socially speaking.

Physical movement in the grades

The chest focus in the grades does not stop teachers from encouraging students to move their limbs during lessons. In one class, for instance, the children were converting a story about true leadership featuring monkeys and a mango tree into a play. As part of their work, they had described a scene in writing in their main lesson copy books. Four words from the description were highlighted on the chalkboard. The next day, the teacher asked them to demonstrate that they could spell these words. With some excitement, they rose and, in single file according to seat, they walked toward the far wall chanting one letter with each step: "M, O, N, K, E, Y!" They did not stop there. Backward they marched: "Y, E, K, N, O, M!" Not all children got the letters right coming back, but they would work on the words repeatedly in the weeks to come.

The next word was "their," and the children stumbled a bit. "Stop," said the teacher. "That was not so good and I'll tell you part of the problem. People are taking silly, too big steps." They tried again, organizing themselves a bit better this time, calling the letters out now in order for the most part as they stepped: " R, I, E, H, T! T, H, E, I, R!"

Math lessons also involve movement. For example, students may toss bean bags back and forth, clap, or even do "donkey kicks" (very fast handstands) or jump rope while reciting times tables. A teacher had students create a "number sidewalk" by drawing numbers on large pieces of paper and then laying these out in a line, zero through twenty. One by one, the children were called up to the number sidewalk to work out an equation each, after which they were to recite the entire equation and then write it onto the board. The first child to go, a volunteer, was given the equation "four plus two equals what?" and led to the four by the teacher, who again said "four plus" and then "one, two" as the boy walked forward two spaces. Ending on six, the boy announced "four plus two equals six!" Smiling, he recorded this on the board as the next student came to the sidewalk. Those who found their equations a struggle were encouraged to use their fingers in counting out the spaces.

These students first worked their equations out physically; only later did they write them on the board. The learning happened, the teacher said, through moving and speaking; writing

"brings it to consciousness," helping students become conscious of what they have learned while the hand and arm embody it. Some think, the teacher lamented, that "our bodies are there to get our heads around from one meeting to another"—but Waldorf "is not a head to head education."

Like math, subjects labeled by the mainstream as non-academic incorporate movement too. Music, for example, inherently involves the body: students finger a flute and blow into it, and use breath to sing. They clap and stomp in rhythm; they move their bodies when songs have associated dances or ring games. Even foreign language classes entail movement, for example through songs in which students march and use their arms and hands to indicate story lines or ideas (a bunny hopping across a field, a wolf's long nose). Classes such as gardening, games (a holistic version of physical education or PE), and eurythmy (a movement-based art[4]) are even more obviously body-based.

Morning circles, also, are very physical. During this phase in the classroom, after greetings and the standing recitation of a verse or two, or a song, often with accompanying body movements (this "gets them all breathing together," emphasizing group unity), classes moved desks and chairs and formed, with their bodies, a ring. Teachers might lead them in unison to sing another movement-accompanied verse, from there leading into other embodied forms of action. One teacher, asking her circle to sit one day, introduced the lotus position, described earlier that week in a story she'd told; such concordances are common and a purposive part of the curriculum, adding to a child's sense of coherence.

Importantly, no student was pushed to adopt a pose or complete a movement that was beyond her or him. "If you can," the teacher began when demonstrating the lotus. For a later movement, she said, "See if you can touch your toes." When bean bags were distributed: "Stand up if you can without letting your beanbags fall."

Later, the students would pass the beanbags in various ways around their bodies, such as from left to right hand in a rainbow arch made over the head, or in a figure eight around

[4] All Waldorf schools require students to take lessons in eurythmy, a movement-based art developed by Steiner in partnership with his wife, Marie Steiner-von Sivers. Eurythmy appears on the surface like interpretive or modern dance. It consists of gesture vocabulary or set of recommended forms or bodily positions that, when taken up or enacted by a person's physical body, give expression to inner experiences. Specifically, as Waldorf educator's see it, they make solid or give form to the etheric body's various movements. The etheric body is constantly moving in any case, but in moving freely etheric power can be dissipated. When we execute etheric motions in our physical gestures, these motions—etheric forces—are helped to work back into the physical body, with a spiritualizing and concurrently health-enhancing effect on child development (Steiner 2002). Although relegated to a footnote here, eurythmy is central to Waldorf education. I only give it (and music, and other arts) short shrift here in due to space limitations and the fact that painting serves as a more accessible example of how arts are used to educate the soul.

marching legs (under the left knee as it raises, through the middle, over to the right and then under the right knee as the right leg comes up).[5] Bean bags offer children "something to hold onto" while practicing skills relating to physical coordination. Teachers say that physical skills translate into academic skills both through imputed neurological channels, such that what appears to be bean bag play facilitates sitting squarely on one's chair by enhancing right-left integration and knowledge of one's balance points; this in turn leads to academic success. Similarly, it is said that the finger and hand dexterity encouraged in handwork class via knitting facilitates writing skills—and dexterous thinking. As well, for handwork as for other productive endeavors undertaken during schooling (e.g., gardening, cleaning, building), the act of making useful objects or doing useful and therefore meaningful work with one's limbs is itself spiritualizing and healthful (see Steiner 2007, pp.176-178).

The body comes into play again for practical reasons when teachers want attention. A teacher sensing a room has become too noisy or the children too distracted can grab and re-center their attention by clapping and stomping out a beat to be repeated. Students never failed, in my time observing, to clap and stomp back. After a series of three such rhythms, order always was restored.

Physical movement remains so central to Waldorf pedagogy that the second grade assessment (the only external assessment done in the lower grades) is nearly entirely devoted to it. That is, rather than being a standardized, quantitative, academically focused affair the second grade assessment mostly entails asking children to do various physical activities related to balance and proprioception, early reflexes, laterality, and the like. It focuses on the body and its organization as well as assessing how well the child's soul-spiritual forces have inhabited or made their way into his or her physical being. Remedial exercises such as balancing on a balance board may be recommended. A child at home in his or her body is better prepared to do well in academically (see McAllen 2004; Blythe 2005).

[5] Directionality is important in Waldorf education although full exploration of this cannot be undertaken here. It must suffice to say that astral and other currents can be intercepted by the body when it moves toward them; natural flows of spiritual energy can be reinforced by moving with them; and upward and downward directionality (into and out of gravity) also comes into play.

Discussion

Waldorf education's cultural understandings regarding child development are reflected in the in the developmental trajectory of teachers' work, which is meant to speak first, in early childhood, to the hands (willing or limb forces), and then in lower grades to focus also and more so on the heart (feeling or chest forces). Only later should the head (head or thinking forces) be brought in.[6] The attention teachers must give to willing and feeling in early childhood and lower grade education requires the pedagogical incorporation, indoors and out, of activities that get children moving and that children are moved by. From the Waldorf perspective, to force them into stillness would cause stunting.

All curricula comprise prior assumptions regarding how humans unfold and how they best learn. This is perhaps most easily seen for the US in retrospect, as when girls and people of color were thought not able to benefit from formal schooling. Today, unsubstantiated developmental theories are leveraged in support of using toddler flashcards and introducing reading in and before kindergarten (cf. Oberman 2007; Suggate and von Behren 2010; Suggate 2011). Similar ideas helped bring computers into public elementary education, despite high costs and a concurrent lack of evidence substantiating predicted gains (Gabriel and Richtel 2011; Richtel 2011a).

Culturally-based developmental pediatrics are centrally important in all education systems: ideas about child development variously justify and generate education policies and programs, including the public K-12 system as it stands. Understanding this, as well as being able to disentangle where a system comes from and what it actually accomplishes, is crucial to education reform. We must recognize when practices are culturally driven and question how and whether these benefit children and society at large. A little willingness to learn from other cultures, too, can go a long way toward the goal of improving education for all children.

The scientific literature associates increased physical activity with academic gains and myriad policy briefs endorse it (Centers for Disease Control and Prevention 2010; Donnelly and Lambourne 2011). Waldorf education's developmental pediatrics supports the incorporation of

[6] Waldorf education's holism has its direct historical and cultural roots in (among other things) the thinking-feeling-doing (acting, willing) model favored in ancient Greece (Brühlmeier 2010, p.48). This model, and cultural elaborations relating to it, also influenced Swiss education reformer Johann Heinrich Pestalozzi (1746-1827), credited with first formally promoting, via his kindergarten program, "learning by head, hand, and heart"—a motto that Steiner no doubt also knew of.

physical activity directly and seamlessly into classroom-based lessons (spelling, math) rather than saving it for breaks or offering it as a modular add-on. This kind of holism may be more transformative in the long run than the compartmentalization implied in including movement only as a "break" from academic work.

Dissatisfied with mainstream Western dualism, Waldorf education's "whole child" approach goes even further than linking bodily movement via the limbs to cognitive or head-based gains. For instance there is a third component to the Waldorf body systems model: the chest, home to the heart, or students' feelings. Like the limbs, which Waldorf education strives to have often in movement, first to educate the will and spiritualize the child and then in addition to cement learning, the feelings should be mobile also. Pedagogical stories and activities such as wet-on-wet painting move children emotionally, engaging them not only with subject matter but also with the world as a whole, fostering in each student a deep sense of connectedness to things and beings beyond him- or herself. This fits the explicit aim of social reform with which Waldorf education was founded; educating the "whole child" with an eye to sending "whole" people out into a world to which they feel connected is one way to effect change for the better.

Conclusion

This paper has addressed recent calls for increasing physical activity in the classroom and interest in "whole child" education through an exploration of Waldorf education, which warrants scholarly attention not only because it does both but also because of its growing popularity. The paper has characterized Waldorf education's understanding of child development, including its triadic vision of the human being, and it has described some of the ways that teachers apply it. In doing so it has not only identified classroom practices that might be translated for use in other school settings where increased physical activity during lessons would be valued; in describing "whole child" education from Waldorf education's standpoint it has demonstrated that a corporeal conception of "movement" is culture-bound. It has highlighted the need to broaden our thinking in regard to what the call to increase movement in the classroom and, indeed, whole child education itself, might entail.

References Cited

Alliance for a Healthier Generation
2012 Physical Activity Breaks. www.healthiergeneration.org/schools.aspx?id=3459.

Almon, Joan
2004 First grade readiness. Waldorf Early Childhood Association:119-129.

[Data in author files]

ASCD
2011 Making the case for educating the whole child www.wholechildeducation.org/resources/WholeChild-MakingTheCase.pdf. Alexandria, VA: ASCD (formerly the Association for Supervision and Curriculum Development).

Blythe, Sally Goddard
2005 The Well Balanced Child: Movement and early learning (Revised edition). Stroud (UK): Hawthorn Press.

Brühlmeier, Arthur
2010 Head, Heart and Hand: Education in the Spirit of Pestalozzi. M. Mitchell, transl. Cambridge (UK): Sophia Books.

Centers for Disease Control and Prevention
2010 The association between school based physical activity, including physical education, and academic performance. Atlanta, GA: U.S. Department of Health and Human Services.

Donnelly, Joseph E., and Kate Lambourne
2011 Classroom-based physical activity, cognition, and academic achievement. Preventive Medicine 52:S36-S42.

Erickson, Pamela I.
2008 Ethnomedicine. Long Grove, IL: Waveland Press.

Foster, Nancy
2004 Some guidelines for first grade readiness. Waldorf Early Childhood Association:119-129.

Gabriel, Trip, and Matt Richtel
2011 Inflating the Software Report Card. *In* New York Times. Pp. A1

Glaser, Barney G., and Anselm Strauss
1967 The Discovery of Grounded Theory: Strategies for Qualitative Research. New York: Aldine de Gruyter.

Glöckler, Michaela, ed.
2002 Education as Preventive Medicine: A salutogenic approach. Fair Oaks, CA: Rudolf Steiner College Press.

[Data in author files]

McAllen, Audrey E.
2004 The Extra Lesson: Movement, drawing, and painting exercises to help children with difficulties in writing, reading, and arithmetic. Fair Oaks, CA: Rudolf Steiner College Press.

Oberman, Ida
2007 Learning from Rudolf Steiner: The relevance of Waldorf education for urban public school reform (http://ecswe.net/wren/documents/relevance_of_waldorf.pdf).

Richtel, Matt
2011a In Classroom of Future, Stagnant Scores. *In* New York Times. Pp. A1.

—
2011b A Silicon Valley School That Doesn't Compute. *In* New York Times. Pp. A1.

Robert Wood Johnson Foundation
2008 Americans Want Schools to Take Recess Seriously www.rwjf.org/pr/product.jsp?id=36731.

Rushton, Stephen, and Anne Juola-Rushton
2008 Classroom Learning Environment, Brain Research and The No Child Left Behind Initiative: 6 years Later. Early Childhood Education Journal 36(1):87-92.

Sagarin, Stephen Keith
2011 The Story of Waldorf Education in the United States: Past, present, and future. Great Barrington, MA: Steinerbooks.

Schaeffer, Adam B.
2010 They spend what? The real cost of public schools. www.cato.org/pub_display.php?pub_id=11432. Washington DC: Cato Institute.

Schoorel, Edmond
2004 The first seven years: Physiology of childhood. Hendrik van Heek (in cooperation with Christa van Tellingen and Dorothy Hinkle-Uhlig), transl. Fair Oaks, CA: Rudolf Steiner College Press.

Sobo, EJ
2009 Culture and Meaning in Health Services Research: A Practical Field Guide. Walnut Creek, CA: Left Coast Press.

Sobo, Elisa J., and Martha Loustaunau
2010 The Cultural Context of Health, Illness and Medicine. Santa Barbara, CA: Praeger.

Steiner, Rudolf
1996 The threefold social order and educational reform. *In* The Renewal of the Social Organism. Great Barrington, MA: Steinerbooks.

—
2002 Rudolf Steiner's comments on subject areas. *In* Education as Preventive Medicine: A salutogenic approach. M. Glöckler, ed. Pp. 171-224. Fair Oaks, CA: Rudolf Steiner College Press.

—
2007 Study of Man (General Education Course): Fourteen lectures given in Stuttgart between 21 August and 5 September 1919. D. Harwood and H. Fox, transl. Forest Row (UK): Rudolf Steiner Press.

—
2008 The Philosophy of Freedom: The Basis for a Modern World Conception. M. Wilson, transl. Forest Row (UK): Rudolf Steiner Press.

Strauss, Anselm, and Juliet Corbin
1998 Basics of Qualitative Research: Techniques and procedures for developing grounded theory. Thousand Oaks, CA: Sage.

Suggate, Sebastian
2011 Reading Research Supports the Waldorf Approach. Research Bulletin (Research Institute for Waldorf Education) 12(1):25-26.

Suggate, Sebastian P., and Miriam L. von Behren
2010 Early School Entry and Subsequent Reading Achievement: What can we Learn from International Studies? Journal of the Pedagogical Section of the General Anthroposophical Society 38(Easter):13-15.

Whole Child Initiative
n.d. What is Whole Child Education? http://www.educatethewholechild.org/what-is-it/, Vol. 2012. Great Barrington, MA: Myrin Institute.

The 2012 “Learning In and Out of School: Education across the Globe” conference was hosted by the University of Notre Dame’s Kellogg Institute for International Studies and cosponsored by the Department of Anthropology and the Institute for Educational Initiatives, with generous support from The Henkels Lecture Fund: Institute for Scholarship in the Liberal Arts, the College of Arts and Letters, and the Office of Research at the University of Notre Dame.

The conference, organized by Kellogg Faculty Fellow and Professor of Anthropology Susan Blum, witnessed inspiring discussion and collaboration between leading scholars of education from several disciplines and nations.

For more information: kellogg.nd.edu/learning