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High physical activity levels in a Waldorf school reflect alternative developmental understandings

Public education in the USA is infamous - rightly or not - for relatively poor learning outcomes. Standardized testing, meant to correct for this, has exacerbated the problem. For example, the concurrent decrease in time students have 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 that high-stakes testing provokes in students also has undermined the test-centric strategy (e.g., Rushton and Juola-Rushton, 2008).

Increased recognition of the high costs of neglecting students' physical and emotional well-being has supported a growing call to make more room for physical activity during school (e.g., Robert Wood Johnson Foundation, 2008). The general approach to augmentation is modular, as seen, for instance, in recommendations to take "activity breaks" and related concern for doing so without "disrupting" instruction (Alliance for a Healthier Generation, 2012).

Waldorf or Steiner schools advocate a more holistic approach. In this alternative to the orthodox state education system, movement is not confined to break activities, and bodies—and emotions too—are part of reading, writing, and arithmetic instruction. Yet, in part because Waldorf (Steiner) education bases its promise on a developmental pediatric framework that differs significantly from that of the mainstream, and in part because it is independent and therefore assumed irrelevant to the broader public, university-based researchers and education policymakers have long paid it little heed. Waldorf education's exponential growth and status as one of the fastest growing independent education

movements today (Barnes, 1991; Sagarin, 2011) make such cultivated ignorance tenable no longer. The time has come for close and careful inspection of what Waldorf does and why.

This paper outlines the developmental framework underlying Waldorf education's approach and then describes how teachers put it to use in relation to the call for getting students moving. 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 body-based conception of "movement" settles for too little; in Waldorf education's world view, thinking and feeling also must be mobile for children to reach their full developmental potential. This triadic model (body, thought, emotion), with its focus on dynamism, stands in contrast to the dualist model (body, mind), fostered in mainstream Western thought as a legacy of Cartesian dualism and the static focus on the disembodied mind that standardisation relies upon.

Methods and settings

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. The project included a document-based investigation undertaken to derive a conceptual model of the developmental pediatric framework espoused by Waldorf education's founder, Rudolf Steiner, and used in Waldorf teacher training today. In addition to Steiner's works (e.g., Steiner, 2007) relevant secondary sources (e.g., Glöckler, 2002; Schoorel, 2004) were reviewed.

Subsequently, an ethnographically oriented study was undertaken at an accredited Waldorf

school. 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 Waldorf education’s 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 school is 30 years old and serves 280 pre-K through twelfth grade students whose ethnic mix is 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 household income data but records show it received 166 tuition assistance applications for 2009-10. Average tuition paid that year was \$6,802 (personal communication, May 31 2011) – notably less than the tuition of \$16,000 to \$28,000 reported for other area private schools (Latrell, 2010) but comparable to the estimated cost-per-pupil at a typical public school in the area (Anonymous, 2011), particularly when underreporting in that system is taken into account (Schaeffer, 2010). School fees are comparatively low in part because classrooms house no technology – partly for reasons related to findings described below.

The study included eighteen participants (seven lead teachers, nine support teachers, and two staff members in teaching-relevant positions). At least 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. 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. The 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 as a Waldorf school parent. I thereby stand in relation to my topic just as do all state education system researchers whose children go or went to, or who themselves have been educated in state school settings and, indeed, to all researchers who study things like eating, sleeping, reproduction, and death.

A real limitation, however, was that the research involved no children. As such, children’s experiences of moving and being moved remain unknown. As well, teacher training was not taken into account ethnographically. Moreover, the study focused on one school only; despite programmatic and aesthetic similarities between Waldorf schools worldwide, meaningful differences in how the basic developmental pediatric framework is construed and applied may exist. Notwithstanding, the paper helps fill the wide gap in our scholarly knowledge about Waldorf education as well as providing ideas for how movement could be enhanced in other school settings.

Findings

Developmental Pediatrics of Waldorf Education

Waldorf education is based on a developmental model articulated by its founder, Rudolf Steiner, as part of a broader philosophical platform called anthroposophy (translated as ‘humanity’s wisdom’). Anthroposophy itself is not taught in the schools but teachers’ methods and curricula are informed by the understanding of child development that anthroposophy espouses. The schools thus have “a proven track record [for enabling students] to find their creativity and to become free individuals who can think for themselves, make their own judgements and find their own purpose and direction in life” (Steiner Waldorf Fellowship 2011).

In Waldorf educators’s view, as per Steiner’s, the human body comprises three systems: 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 is said to extend 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. A major task of Waldorf educators is to ensure that the three systems, and all that they pertain to, get the environmental support necessary for their healthy development.

The three systems are said to express three modes of engagement: thinking, feeling, and willing. These are all “soul activities.” Although soul forces per se are most firmly at home in the chest, 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. The limbs are though to act as conduits through which soul and spiritual forces enter children.

In Steiner’s view, at different phases in the life course, different systems and so different soul activities dominate. 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. In keeping with this trajectory, pedagogy begins with a focus on encouraging physical *imitation*, then strives mainly to mobilize *imagination*, and later on will include lessons that use analytic logic or independent *judgement* (see Table 1 below).

This triadic model challenges, in Steiner’s words, the “erroneous conception of the twofold division of the human being” (2007, pp.41-42). Indeed, Steiner viewed Cartesian dualism, in particular, as “one of the great mistakes... of the last few centuries” (p.27)

Early Childhood: Ages Four through Six

Waldorf education does not displace active learning in early childhood classrooms with sedentary academics as many other systems have done. This is because pre-K and kindergarten-age children are seen as

“incarnating” – entering, developing, and learning how to live with and through their bodies—and so stilling them would be unhelpful and unhealthful. 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 best for this. Keeping the limbs in movement likewise, it is believed, helps to spiritualize the body in a broader sense, drawing in spiritual substance into the child’s being from the universal sphere.

No attempt is made of formal instruction in early childhood classrooms, for this would cause premature hardening of the intellect, leading to inflexible thinking in adulthood. Rather, teachers leverage young children’s imitative tendency; they strive to set good examples and engage their charges actively to do as they do: to chop carrots for soup, knead bread, sweep the floor, and sew. They encourage them also to use their bodies in creative play; classroom furnishings can be moved all about, piled up, and turned over as boats, dragons, houses and other structures; as well, children are taken out to play even in inclement weather. Props used in play outside are mainly tools (e.g., watering cans, shovels, buckets) and natural objects (e.g., stones, found bugs, bits of wood).

Engaging children in whole-body activities is said to promote the full development of proprioceptive, balance-related, and gross and fine motor skills—upon which later learning and academic success will depend. Teachers say sweeping, for example, allows children to gain mastery in crossing their vertical midline, key to the kind of right-left integration that skillful writing demands.

The Lower Grades: Ages Seven through Nine

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

Table 1. Waldorf Education’s Developmental Stages

Stage of childhood	Primary force to be awakened	Corresponding system	Primary mode of engagement
0-6 years	Willing ('hands')	limb system	Imitation
7-13 years	Feeling ('heart')	chest system	Imagination
14-20 years	Thinking ('head')	head system	Judgement

take them into their imaginations, mobilize further inquiry or contemplation by fueling a sense of connectedness to subject matter. Wet-on-wet painting, in which watercolors are applied to wet paper so that mobile interaction of the paints occur, also is used to stimulate children's "feeling life." In this and other chest-focused ways, teachers move children to learn.

Teachers encourage students to move their limbs during lessons too. For instance, in one class observed, students practicing spelling some new words were directed to rise. 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. One 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.

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 education "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).

Teachers often used beanbags in lessons, asking students to pass them in various ways around their bodies, such as from left to right hand in a rainbow arch made over the head while repeating a verse, or in a figure eight around marching legs while counting. Teachers say that physical skills translate into academic skills both through imputed neurological channels, such that what appears to be 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, the finger and hand dexterity encouraged in handwork class via knitting facilitates writing skills; nimble fingers also are said to help build nimble minds. And, 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). A child at home in his or her body is better prepared to do well in academically (see McAllen 2004; Blythe 2005).

Conclusion

The scientific literature associates increased physical activity with academic gains and myriad policy briefs endorse increased movement (Centers for Disease Control and Prevention, 2010; Donnelly and Lambourne, 2011), as do Waldorf educators. This does not mean that Waldorf education follows a dualistic

mind-body model. On the contrary: Waldorf education's 'whole child' approach includes a third component: feelings. Like the limbs, which Waldorf education strives to keep in movement (first to educate the will and spiritualize the child, then to cement learning), the feelings or chest system should be mobile also. Teachers strive to stimulate 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 beings beyond him- or herself. Waldorf education's developmental pediatrics support the incorporation of physical activity directly and seamlessly into classroom-based lessons rather than saving it for breaks or offering it as an add-on. These examples help to broaden our thinking about increasing movement in the classroom.

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