Promoting Vitality in Health and Physical Education

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Vitality draws together the interests of health and physical education. Already these fields of education have come together, with health, fitness, wellness, and active and healthy living as shared curricular concepts. Vitality furthers these conjunctions by having us rethink prevailing views of the body of knowledge in health and physical education. More than a concept, vitality is promoted phenomenologically in terms of the essential movements of the body. It is explicated as vitality affects, specifically identifiable motions and developmental patterns of movement that provide curricular structure for teaching health and physical education. The promotional implications of this analysis relate to enlivening the baseline criteria currently used in health and physical education assessments; revitalizing the curricular concepts of body awareness, space, time, and relationships on which provincial programs are based; and expanding the reach of these programs to mental, emotional, spiritual, and, particularly, environmental health.

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Wellness and lifestyle, health enhancement and skill development, comprehensive health and health-related fitness, active and healthy living—these have become the catchwords of contemporary health and physical education programs. Curriculum boundaries have blurred, as evidenced by a behavior-oriented approach to health education emphasizing the cognitive understandings of health practices along with the requisite attitudinal changes and skill developments and, on the other hand, by a lifestyle-oriented approach to physical education emphasizing a desirable level of personal fitness and motor skill development along with the personal and social responsibilities of participating in physical activities that foster individual and population health. Knowledge of health practices and the means and motivation to put this knowledge into practice have become consistent with getting physically fit and having that fitness be part of a lifetime participation in games, sports, dance, and physical recreations.

We applaud this recognition of the overlapping interests of health education and physical education and want to articulate further the nature of the common

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curriculum space to which the contemporary catchwords and slogans speak. Here, we introduce vitality as an inclusive concept of health and physical education and one we think encapsulates the variety of experiences constitutive of these curricular domains.

The concept is not a new one. It was the basis of a 1991 Canadian "VITALITY approach" to achieving healthy body weight through informed dietary practices, regular physical activity, and positive self-image. As an approach to health and physical education, VITALITY emphasized active living and engagement in activities that feel good, are fun, and can be integrated into daily life (Health Canada, 2002, 2004). The concept of vitality also appears in the health and physical education advocacy literatures in terms of the well-being of the body and as a quality of vigor in movement, and it is a feature of health-sustaining communities within the larger population health framework (Health Canada, 1999), but the concept itself has not been foregrounded to any significant extent, and particularly not as we propose to highlight it in the present analysis.

Vitality certainly has to do with wellness and health consciousness; it also has to do with energy, motion, and the specific actions of cultivating a state of wellness and health. It is a concept that melds attitude and behavior, disposition and position, satisfaction and action, health promotion and physical motion. Even more than a concept, vitality is first of all an event, a situation, a circumstance that is experienced bodily. It is feeling alive, innervated, animated, and invigorated in specific postures, positions, gestures, motions, and expressions of the body. Vitality refers, in other words, to the corporeal constitution of active and healthy living. It is a motor perception long before it is a curricular conception.

The purpose of this article is to pursue a phenomenology of vitality that extends the rapprochement of health and physical education. We are interested in the experience of vitality and the motions in which vitality is felt. We ask, What is it like to be vitally engaged in physical activity? What does movement vitality look like? What are the bodily postures, positions, gestures, actions, and expressions of vitality? and How might vitality and its movement expressions be cultivated? What curricula themes and topics draw directly on the vitality of movement consciousness? These are questions at the heart of our inquiry into a more holistic conception of health and physical education programming.

A phenomenology of vitality needs, as a preface, some ground clearing of presuppositions that might otherwise stand in the way. Accordingly, we begin this article with a consideration of vitality blocks: conceptual suppressions of vitality, historical prejudices against vitality, and practical ways of engaging in physical activity such that vitality is not considered. We then focus on the perception of vitality in terms of vital movements that attest to an animate consciousness, which is not just the consciousness of an embodied mind or a mindful body (as much of the recent "corporeal turn" stresses) but also a fundamental way of thinking in movement (Sheets-Johnstone, 1999). We shall see how phenomenological descriptions of vitality in which "animation, aliveness, dynamically changing conformations and contours, qualitatively meaningful forms—and, by extension, a spatio-temporal world co-terminus with that experienced animation and aliveness, those dynamically changing contours, and so on" (p. xxvii) disclose the essential characteristics and "cardinal epistemological structures of kinesthetic consciousness"(p. xxii). This is a phenomenology of vitality affects, vital motions, and developmental

patterns of movement that constitute a material, organic, embodied consciousness. Finally, we look at the broader educative issue of promoting vitality as requiring us to envision holistic, comprehensive health and physical education programming. The phenomenology of the perception of vitality discloses a conception of what one might design, implement, and evaluate as programs that fully promote active and healthy living.

VITALITY BLOCKS

Our understanding of vitality is more often than not overshadowed by conceptions of fitness that are limited to numeric, hierarchical progressions and mechanistic representations of the body. If one turns to the chapters in current physical education texts that review the recommended health-related content, for example, there are diagrams of the circulatory system, arrows that point out the names of major muscle groups and bone structures, illustrations of children getting pinches of fat tested with calipers, and strategies listed to assess numerically cardiovascular capacity, muscle strength and endurance, flexibility, and body composition. The first impression of vitality, as it relates to physical fitness, is of a clinical encounter similar in nature to a visit to the doctor's office.

There are a number of reasons for this suppression of vitality. O'Reilly (1998) has pointed out the tendency to situate physical education within a discourse of "scientific rationality" aimed toward "measurable human performance" that has to do with physical educators' wanting to "legitimize their subject area" (p. 45). She explained, "Education institutions have historically privileged intellectual over physical work and physical education as a subject concerned with bodily practice has traditionally been marginal to those subjects more closely associated with intellectual learning" (p. 45). Moreover, physical educators in school institutions are not alone in their gravitation toward the "scientization" of bodily practice. Shusterman (1999) has drawn attention to the way in which fitness professionals and health enthusiasts in general tend to evaluate the bodily presence of fitness.

> Enthusiasts of bodily beauty and bodily training are not merely superficial; they are more sinisterly linked to fascist exterminators, who treat the human body as a mere "physical substance," a malleable mechanical tool whose parts must be shaped and sharpened to make it more effectively serve whatever power controls it. . . . They see the body as a moving mechanism, with joints as its components and flesh to cushion the skeleton. They use the body and its parts as though they were already separated from it. . . . They measure others, without realizing it, with the gaze of a coffin maker [and so call them] tall, short, fat or heavy. . . . Language keeps pace with them. It has transformed a walk into motion and a meal into calories. (p. 306)

What has led to this scientization of the body and creation of movement practices that appear to suppress the vitality of the body? For answers we shall look first to the confrontation of vitalism and mechanism; next, to the outcome of this confrontation in a predominantly biomechanical and biomedical view of the body; and, then, to the challenge that alternative movement practices—ones that might well be incorporated in health and physical education programming—pose to this deep-seated prejudice against the inherent vitality of the body.

Vitalism Versus Mechanism

The concept of vitality has connections to the doctrine of vitalism, which goes back to Aristotle and the "philosophers of life," such as de Chardin and Bergson, who wrote of creative evolution and an *élan vital*, *vis essentialis*, *vis viva*, or life force animating bodily functions right down to the level of chemical processes and the vital order of nature. This life force imbues organic processes with intentions and purposes that distinguish them from the chemical mechanisms governing inorganic matter. The human body is such an organism that is thought to be subject to vitalistic humors, *orgone* or bioenergy, *chi* or *qi*, *ki*, and *reiki*, *prana*, and *kundalini shakti*. In alchemical terms, the human body is composed of the elements of earth, air, fire, and water, which reflect and are animated by a fifth element, ether, which is the *quintessentia*, or essential, vitalizing force. The doctrine of vitalism suggests, furthermore, that the human body is a prototype of other living organisms and that it reflects the organization of nature as a whole.[1]

Vitalism has been largely dismissed in favor of mechanistic explanations of bodily functioning based on the production, transfer, and consumption of energy. With the invention of the microscope, it became possible to see the functioning of vitality-affecting agents like viruses and bacteria, and modern anatomy brought attention to the functions of various bodily organs, rather than a more general life force, in sustaining life. But the death-knell of vitalism resulted from 19th-century experiments showing that organic compounds like urea, which were thought to be the products only of living organisms and hence of vital forces, could be produced chemically in the same way as inorganic compounds. As an increasing number of life processes came to be understood in replicable scientific terms, which is to say, as simply the chemical, physiological, and biological transfers of energy, and as health practices became associated with etiologies and pathologies of disease, vitalism as a doctrine fell into disrepute (Lorenz, 1996; Nuland, 1997; Wikipedia, 2004). Yet vitalism remains a feature of the bodywork disciplines on the margins of physical education (e.g., yoga, Pilates) and of the alternative field of health care (e.g., acupuncture, homeopathy, chiropractic). For example, reference is made in the practice of "Eutony" to the bodily preservation of a "spiritual force" (Alexander, 1995, p. 278), to "tapping into the life force" when using the "Alexander Technique" (Elman, 1997, p. 110) and, in the Lomi School, to "the movement of life force, the flow of vibratory sensation, a kind of sixth sense" (Hall, 1997, p. 131). Here and throughout the bodywork and alternative health literatures, we find attention paid to the subtleties of vitalism that need not be dismissed along with the more excessive and erroneous parts of the doctrine.

Lest we consider vitalism dead and buried in health and physical education, consider the following statement from the legendary Sheehan (1979), who wrote about someone lacking the motivation to engage in fitness activities:

> What is missing is the spiritual energy, what the Greeks called "enthusiasm." There are, of course, many other desirable qualities missing as well, but enthusiasm is the key. . . . When we are enthusiastic, we take on the qualities that go with it. We develop a determination to equal the endurance of our muscles, a fortitude to match the courage of our hearts, and a passion to join with the animal strengths of our bodies. (p. 39)

Spiritual energy, enthusiasm, motivation, or, in short, vitality are not immaterial, animating forces; they are not spiritual features or soul qualities that lack cellular, tissue, bone, and flesh incarnation. On the contrary, "spirit is in its very essence the product of the organization and integration of a multiplicity of physical and chemical processes that is us" (Nuland, 1997, p. 68). Enthusiasm, which means etymologically to be filled with the spirit of God, is profoundly about inspiration, respiration, and the transfer of energy that comes with the very materially and substantially breathed ether that we nowadays call "fresh air." This is the vital order of athletic performance and of its material motivation through the cardiovascularity of gas and fluid motions and through the structural alignments and flows of the organ, skeletal, and neural systems of the body. Mechanism goes too far in its reductive assumptions, leaving behind the motivational and integrative means of the body to compose itself energetically, athletically, sensually, aesthetically, and even ethically.

One need not be a mechanist to appreciate the body's self-constituting carnality. By the same token, one need not subscribe to the follies of vitalism to appreciate the material truths to which this doctrine laid claim. There is a basic vitality that is not simply a descriptor of certain movements but an animating condition of life that is given to us. It is the biological gift of being able to move in certain ways that appear energetic and that convey joy, at times playfulness, but most of all vibrancy, fluidity, and rhythmicity; and in the sense of being a gift, it is a quality of effort—of creating space, living time, feeling flow, and finding relationships—that appears effortless. It is, in fact, the gift of a body with the in-built capacity for expressive movement and hence for incorporating the expressive movements of others. Heidegger (1975) wrote, "If we did not [already] understand what life and vitality signify, then we would not be able to comport ourselves toward living beings" (p. 8). Our comportments, which refer to carriages, bearings, postures, and positions, along with gestures, actions, and expressions, provide this bodily comprehension of vitality and the means whereby we are able to turn to other living beings whose comportments express individual styles of moving along with an essential recognizability.

Vitality and its comportments thus suggest a fuller, more cohesive view of physical education than "motor development" and the correlative dimensions of cognitive and attitudinal developments, and a more integrated view of health education than attitudinal and cognitive developments and the correlative dimension of "skill development." Attention is drawn to a body that moves; that is disposed to move; that sees, hears, feels, and knows itself in movement; and that is literally a body of knowledge not just about the ways and means of movement but also about the meaning of movement for developing a manner and style of being in the world. The vital body, as a body that is inherently conscious of its expressive outgoing movements, is the key to an active and healthy style of living.

Leib Versus *Körper*

The human body is more than a moving mechanism of levers, masses, flows, and circuits or, as Robinson (2002) has pointed out, more than a "replaceable cog in a giant machine" (p. 22). Since the time of Descartes and his book on human physiology, we have reduced "various types of human experience to the mechanical inter-

actions of the body, i.e., to physics" (Welton, 1999, pp. 2-3). Descartes asserted that "the whole range of human passions and moods, as well as determinates of will, are nothing more than effects of the mechanical interactions of the fluids and parts of the body" (cited in Welton, 1999, p. 3). Following this assertion, the body has come to be seen as a fluid-and-gas-exchange system, a musculoskeletal, biomechanical unit, a neural-circuited information processor whose vitality is a function of energy consumption, transfer, and expenditure. Vitality, according to this Cartesian view, "arises from the body's own mechanical processes" (Leder, 1998, p. 118) and is thus determined by the function and efficiencies of the chemical and biological processes, along with the systems of anatomical and physiological organization that are seen to comprise it. Vitality gives way to mechanical indices of optimal functioning, like efficiency of movement, skill, economy, precision, function, and repeatable form.

"For us, mechanical, repetitive movement is accepted as desirable, and this mechanization lies at the core of how we live and describe our world." Conrad-Da'Oud (1988) went on to ask, "Does this have any connection to a flowing vital process called a human being, whose form is based on the movement of water?" (p. 17). In an exercise program designated by sets and repetitions, is there room to connect to our viscerally felt bodies? Do we count down the exercises, sets, and repetitions that are left, or is attention drawn to the vitality of form and function that is apparent when the flow of tissue fluid and the rhythms and vibrations of organs energize the muscular system? As we move, do we grasp the vitality of arterial pulse and venous flow and the tissue pump of lymph and blood that support cardiac rhythm? Do we sense the mechanisms of electrical circuitry that account for a body that can feel polarities and affinities, impulses, charges, and conductivities in the radiance of a smile, connections to nature, and the excitations of connecting sensuously with another?

Against the mechanistic representation of the body, which Husserl named *Körper*, or "body as object" (cited in Welton, 1999, p. 4), is *Leib*, or the emotive, "lived body" that is capable of perceiving, sensing, and feeling vitality (see Leder, 1998; also Middendorf, 1995). This is the animate body that builds on its genetic codes, its neural reflexes and pathways, its perceptual-motor developments and integrations, its fluid hydraulics and valences, and its respiratory and vocal capacities to compose itself, think, feel, flow, be inspired, speak, and sing.[2] This is a living, breathing body that has a capacity for self-initiated movement and for responding to the movements of others with a certain signature, style, or manner. This is the "somatic" body to which many movement educators and physical therapists have turned.

Hanna coined the name *somatics*, adding the "s" to designate a field of study focusing on the lived body or, better still, the living or animate body.

> "Somatic" as in psychosomatic has been used to mean the physicalistic body as distinct from the mind or soul of a person, or to designate the musculoskeletal frame as distinct from the nervous and visceral systems of the body, and from the cranium. Hanna recovered the older Christian mystical use of the term, whose source is in the New Testament. Paul distinguishes between the Greek word *sarx*, which has the sense of a "hunk of meat," from *soma*, which Paul used to designate the luminous body transformed by faith. Hanna argued that it was the sacral body, gross and mechanistically conceived, separate from mind and imagination, that dominated Western thought and medicine. In his view, the teachers of embodiment practices were recovering a hidden sense of the wise, imaginative and creative body, thus

> creating a "Somatics," what Edmund Husserl, the founder of modern phenomenology called "somatology." (Johnson, 1995, p. xv)

Somatics and somatology put phenomenological emphasis on the body that is felt, experienced, and perceived from within.[3] Stress is placed on the "body-subject" to which Merleau-Ponty (1962, 1968) gave so much attention; that Marcel (1952), Buytendijk (1974), van den Berg (1952), and Zaner (1964), among others, articulated with the dimensions of bodily-lived space, bodily-constituted time and felt relationships with other bodies; and that Sheets-Johnstone (1999) calls animated. It is the body of flesh and fluid and sinew and bone that is fundamentally consciousness of itself within the movements that those very materials and structures make possible.

Seeing Versus Sensing

The discourses of physical education and, to a lesser extent, health education remain dominated by the lexicon of a body that moves, but one that is not first of all acknowledged as being my body, some body, and a body of cumulative movement experiences.[4] Instead of accenting the inner, felt sense of movement, and the resonances of touch, sound, and, especially, the activation of the internal senses of kinesthesia, interoception, and proprioception, there is a privileging of the visual, external sense of movement, of what movement looks like, and of how, where, and why the body moves, and what it moves in relation to. In setting up a drill, for example, one might make reference to the motor skill to be developed, the rules that account for an ideal execution of the skill, the pairings or groupings of students, the length of time students are to be engaged in the activity, and the parameter or boundaries of the activity. If students have bodies and the necessary equipment, such as balls and sticks, it is assumed that they have all that is necessary to carry out the exercise. However, having a body, no matter how strong, muscular, energetic, and athletic, does not necessarily mean being a body, a vital or "lived-body," that is in tune with itself, the body "*who we are* . . . the space we are, the space we live . . . [and] the lived space from which we orient toward our world" (Maitland, 1995, p. 104, original emphasis).

Bleeker and Mulderij (1990) made a similar point in their observational study of children with motor impairment, for whom the body is sometimes conspicuous, rebellious, disruptive, dependent, and incomprehensible. Even so, they maintain there is still the "vital body" that is evident in the children's downhill wheelchair races, or when they haul their wheelchairs onto a large, specifically designed swing, or when they play tag and chase one another around the playground in their wheelchairs and three-wheelers. The "conditional experience of vitality" is also evident in the pool, where the children find support for movements that are difficult or wellnigh impossible on land (para. 15). Bleeker and Mulderij suggested, also, a "substitutive experience of vitality," whereby the child who is unable to move himself or herself takes pleasure in watching a sibling or some other child play games and sports and so feels "sympathetically in his or her own body what is happening in the body experience of other children" (para. 16). Vitality resides in a body that has an intrinsic movement consciousness of its expressive possibilities; disability resides in a body that is predominantly consciousness of itself and its expressive limitations. This disability, which need not be defined by specific labels of motor

impairment, has much to do with denying the kinesthetic, proprioceptive, and interoceptive senses of movement that constitute the vital body.

The ability to perceive movement, that is, perceptual consciousness, is thought generally to lie with the five outside senses—vision, hearing, taste, touch, and smell—with the central nervous system providing a coordinating, anticipatory function. Hence, perception is regarded as a sensation of things, sounds, tastes, touches, and odors within a consciousness of itself before, during, and after the apprehension and reception of these sensations. However, before there is such sensory awareness, there is a prereflective, animate consciousness, a pre-thetic intentionality (Merleau-Ponty, 1962), registering with the inner as well as the outer perceptors of movement. There are the proprioceptors and kinesthetic receptors of the bones, joints, ligaments, muscle, and fascia; the interoceptors of the glands, organs, blood and lymph vessels, and nerves; and the vestibular sensors of the inner ear, along with the network of neural connections that reach to the cellular level. We could say that movement is the basis of perceptual consciousness, although it is more accurate to say that movement is the original and originating sense and feeling of perceptual consciousness.[5]

Even motions that we perceive consciously become subcortical with practice, going into the blood, the bones, the sinews, the organs, the fluids, and the cellular and interstitial spaces. Skilled movements gain an automaticity that rests with the reflexes, their integration and patterning, and with the bodily composition that is reflexively and skillfully cultivated. Movement rises and falls in a consciousness that is inherently kinetic and in a body that is essentially kinesthetic. "What we call 'body' is not 'matter' but movement" (Conrad-Da'Oud, 1995, p. 311). Movement is its essence, its *es-sense*, its sentience and essential constitution.

Vital Movements

Animated movements define our aliveness (Sheets-Johnstone, 1999), our spiritedness, sprightliness, energy, strength, power, and potency. They allow us to feel the passage of breath entering the nostrils and passing down into a widened chest cavity with inspiration and, literally, enthusiasm; sense rhythms and wave motions that ripple with core activation through the musculature (Conrad-Da'Oud, 1988); know kinesthetically and proprioceptively how to move in fluid, expressive ways that innervate and revitalize; and cultivate manners or styles of moving that are skillful, synesthetic, and aesthetically pleasing.

Because of the prejudices and biases listed above, our breathing, moving, feeling, sensing, coordinating bodies are not fully embraced by health and physical education curricula. The body is understood as a grouping of mechanistic components that can be mapped out on a two-dimensional anatomy chart or an entity that can be measured in terms of cardiovascular capacity, muscular strength and endurance, flexibility, and fat percentage. This means that if a student's body composition, measured through skin folds or an overall body mass index (BMI), cardiovascular capacity, flexibility, and muscle endurance and strength levels, is close to recommended norms, one can predict a high level of health as it relates to a "lower risk of illness and improved quality of life" (Charles, Pangrazi, & Franks, 2000, p. 9). But what about the present condition of life, its liveliness and aliveness? How is this

vitality enacted, cultivated, and sustained? How do we nurture and maintain the presence of vitality as integral to the movements that comprise the skill foundations and skill disciplines of the curricular fields of health and physical education?

Affects

Sheets-Johnstone (1999) addressed vitality as the "felt tensional quality, linear quality, amplitudinal, and projectional quality" of movement (p. 143); movement's "spatio-temporal dynamic coincident with the manner in which we are moving" (p. 148); and, specifically, in terms of the "vitality affects—surgings, fadings, and all such qualitative features of [movement] experience" (p. 158). She referred to Stern's articulation of "vitality affects" as the "purely dynamic aspects of a phenomenon" (p. 256), which is useful, although any idea of affects not tied to specific motions and emotions remains too psychological. As Sheets-Johnstone put it, "Any time one moves, a vitality affect is present; a certain qualitative dynamic is evident" (p. 257). Thus, for the purposes of health-related physical education and defining the qualities of active and healthy living, we can be more specific with respect to those motions that are more vital than others.

There are vitality affects that are

- rushes of excitement, energy, and movement;
- bursts of speed and activity;
- surges of enthusiasm, energy, and inspiration; and
- swells of emotion and motion; along with
- risings, undulations, waves, and flows that characterize the vitality dynamics of particular movements.

More specifically, we can experience these surges and swells as forceful bodily expansions and extensions, yet differing from bursts and rushes in terms of their energetic cadences and generative motions. Rising is springing, leaping, and jumping, yet differing from waves and undulations, with the latter also admitting landing, holding, contracting, and pausing before the next upswing or lead-off motion. Flows are even more sustained, characterizing motion that is fluid, floating and connecting.

Such vitality affects as these rushes, bursts, surges, swells, risings, undulations, waves, and flows are more than the affective components of movement; they are indicative of key bodily motions of vitality. It is certainly the case that an individual can be described as being lively and animated without specification of the motions that indicate liveliness and animation. The dynamic that is indicated might be evident in a range of rushing, bursting, surging, swelling, rising, undulating, waving, and flowing movements that have similar affective connotations. Conversely, certain vitality affects can be discerned in a range of motions that have quite dissimilar affective meanings. There can be a rush of gladness as well as sadness, a burst of laughter as well as anger, a surge of confidence as well as fear, swellings of pride and hurt, and waves of many kinds of feeling, but these attributions are progressively abstract and only vaguely descriptive of what it actually means to be alive and animated the further removed they are from the specific motions indicative of a state, a style and manner, of being healthy and physically active.

Quality of movement is not an attribution removed from the spatiotemporal dynamic of movement, which is to say from its effort as extensive or contractive, light or heavy, momentary of sustained, for instance. Quality is, rather, a

> built-in of the animate world . . . that in various ways literally informs the life of all animate organisms, both as the style of appearance of an organism's own moving body as it experiences itself in the process of moving, and as a "style of appearance" of something in the world. (Sheets-Johnstone, 1999, p. 160)

The qualities of vitality are identifiable in particular body positions, postures, and physical bearings, in particular body movements, hand gestures, head motions, torso shapes, arm and leg transitions, and facial expressions that reflect the vitality of the body as a whole. We can identify a rising, swelling posture; an expanding, connecting space; a streaming, flowing present; a surging, unfolding, enfolding embrace. The vital qualities of movement can thus be identified in terms of body compositions, their spaciousness, temporalities, and relationships to others. We will address these existential themes subsequently but for the present shall stay close to the movement features of an animate consciousness to which vitality affects have drawn our attention.

Motions

Let us be even more specific regarding movements indicative of vitality. Delsarte (1811-1871), to whom much of our thinking about movement can be traced (cf. Brown & Sommer, 1969), was instrumental in defining the physical postures, gestures, and expressions of passion, aliveness, and energy (see Shawn, 1954; Stebbins, 1977; Zorn, 1968). Delsarte first observed the contraction and extension of the thumb as indicating affection for others and a general sense of liveliness. After noting the contraction of the thumb in dying patients and its continued contraction after death, he watched adults interacting with young children and noticed that the strength of the affective bond between young and old was evident in the degree of thumb contraction.

> I noticed nurses who were distracted and indifferent to their children under their charge; in these the thumb was invariably drawn toward the fingers, thus offering some resemblance to the adduction which it manifests in death. With other nurses, more affectionate, the fingers of the hand that held the child were visibly parted, displaying a thumb that bent outward; but this eccentration rose to still more startling proportion in those mothers whom I saw each carrying her own child; there the thumb was bent violently outward, as if to embrace and clasp a beloved being. (Delsarte's last letter to the King of Hanover, cited in Zorn, 1968, p. 37)

Delsarte concluded that the thumb is the "thermometer of life in its extending progression" (p. 37). Similarly, there are indications of vitality in the movements of the shoulders. Delsarte observed the lifting of the shoulders in moments of passion and, conversely, the lie that is put to any words and expressions of strong affection when the shoulders remain lowered. "Let the shoulder not be lifted, that head will plainly lack an air of vitality and warm sincerity without which it cannot persuade

us" (p. 51). The shoulder is then "the thermometer of passion as well as of sensibility" (p. 55). By contrast, the elbow is "the thermometer of the will" (Shawn, 1954, p. 41), being held close to the body in postures of supplication or with arms akimbo in postures of assertiveness and domination. The wrist is the "thermometer of vital force" (p. 41), with positions of limp-wristedness contrasting with the "strong wrist, neither bent, nor rigid, but with the pliant strength of the branch of the living tree" (p. 41; also Cohen, 1993, p. 43). The lower appendages have analogous thermometric functions: the hips providing a sensuousness to movement, particularly in certain dance forms; the knees asserting will, for instance in the capacity to extend vigorously in kicking motions or flex in motions of submission; and the ankles indicating vitality in providing a strong or weak base to the "entire bearing of the body" (p. 42). From these observations, Delsarte described in intricate detail the meanings of the various bodily postures, positions, gestures, and expressions, including those nuanced motions that indicate vitality, such as that "expressed by raising the outer part of the eyebrows" (Zorn, 1968, p. 123) or the "eccentric attitude" of the elevated head (p. 169).

Through the subsequent work of Jacques-Dalcroze, Mackay, Stebbins, Kallmeyer, Gindler, Mensendieck, Laban, and the dancers, movement educators, physical educators, physical therapists, and body workers who have followed in their footsteps and articulated the physiognomies and physicalities of vitality (see Johnson, 1995; Knaster, 1996), we now have a vast compendium of vital movements. Against this backdrop, we can be attuned to the vital movements that comprise contemporary health and physical education programs—movements that are categorized rather loosely in terms of the skill themes or basic movement patterns of locomotion, manipulation, and stability; the more advanced skills of games, sports, gymnastics, and dance; and such vital movements as express a state of well-being and that are characterized in terms of the space, time, flow, and relationship qualities of bodily effort.

The curriculum literature of physical education, in particular, reflects these movement patterns, skills, and concepts (e.g., Gallahue & Donnelly, 2003; Kirchner & Fishburne, 1998; Pangrazi & Gibbons, 2003). What is missing is the specific focus on the kinds of movement patterns and skill progressions that optimize a bodily vitality. For instance, basic locomotor and/or transport patterns have not simply to do with walking, running, hopping, jumping, leaping, rolling, skipping, galloping, climbing, sliding, or propulsion through water, but with running and stopping, leaping and landing, propulsion and resistance. Likewise, the basic manipulative patterns of receiving (e.g., catching, collecting), retaining (e.g., dribbling, carrying, bouncing, trapping), and sending (e.g., throwing, kicking, striking), and the stability or nonlocomotor patterns of turning, twisting, swinging, balancing, bending, landing, stretching, curling, or hanging can be paired in terms of pushing and pulling, giving and receiving, grasping and yielding, venturing and withdrawing, extending and contracting, expanding and condensing. These pairings are not arbitrary; on the contrary, they are features of phylogenetic and ontogenetic human developments (cf. Cohen, 1993) that are traceable to the "original kinetic bodily pairings—of inhalation and exhalation, for example, of opening and closing (eyes, mouths, or fist), of walking on one foot then the other, and so on" (Sheets-Johnstone, 1999, p. 157).

Developmental Patterns

The key kinetic patterns, in terms of developmental sequence, are generally understood to comprise breathing, navel radiation (later called core activation), spinal movements of flexion and extension, and then homologous, homolateral, and contralateral movements of the arms and legs. These patterns and their integrations create the vast range of body positions, postures and shapes, levels, locomotions, trajectories, and connections of which we are capable. It is the vitality expressed in these patterns, however—that which is first of all the strength of inhalation and exhalation, subsequently the force of pushing and releasing that establishes the space of the kinesphere, and then the more adroit motions of reaching and pulling that create levels and pathways beyond personal space—that is of interest to us here. Such vitality is evident in these kinetic pairings of motion and particularly in the impulse toward sustained, sequenced movement patterns. By contrast, repetitive movements quickly become devitalizing, as do movements that are confined to certain shapes, levels, or pathways. The essentially vital feature of movement is how the affects of which we have spoken sequence through the body, rushing, bursting, surging, swelling, rising, undulating, waving, or flowing as "dynamically changing conformations and contours" (Sheets-Johnstone, 1999, p. xxvii) and as the "felt tensional quality, linear quality, amplitudinal, and projectional quality" of kinetic perception (p. 143).

To "sit up straight" might be a movement of forced attention; to sit up from a position of repose might be a movement of greater intention. Nevertheless, some vital qualities of movement are missing if sitting up does not happen with brightness and clarity, a wide-awakeness, alertness, cheerfulness, and freshness that are readily apparent in the position reached and the positions to which sitting up then lends itself. Sitting up is premised on certain pushing and pulling reflex integrations, combinations of physiological flexion and extension, homologous arm movements, and the coordination of a range of righting reactions and equilibrium responses. It is a pattern of movement that, like all movements beyond simple reflexes, yields both "objective" body position and "subjective" attitudinal disposition, or, at least, that is what might be assumed. Vitality in sitting up is the merging of attention and intention in fully integrated reflexes, righting reactions and equilibrium responses (Cohen, 1993). We experience this vitality with positional ease, dispositional exuberance, and compositional spontaneity, and contrast it with the common admonition to "sit down" as a settling composition.

Developmental patterns of movement are essential to the many expressions of vitality. A smile shines on one's face. There is a rush of motion, a commotion, out of which comes excitement for the task at hand. One moves in a burst of energy, springing into action, jumping to the task, and being extended effortlessly. These vital movements are all-engrossing, occurring in a spatiotemporal dynamic of flow motion. Motor skill development carries something of this patterning of vitality.

> As integrated reflexes are combined with others, our movement becomes more complex, more creative options are available, and the clarity of our attention and intention is more fully manifested. The more skillful we are, the simpler we become. (Cohen, 1993, p. 156)

Missing from skill development constructs, however, is an emphasis on the manner in which attention and intention reflect the operative, kinesthetic intentionality of executing skills with vital engagement. There is no "ghost in the machine" at work here. Developmental movement patterns of vitality show a bodily mindfulness of kinetic pairings, the sensory complementary of flexion and extension, pushing and pulling, giving and receiving, grasping and yielding, venturing and withdrawing, extending and contracting, expanding and condensing, and the felt integration of these actions and reactions in motions that are playful and otherwise pleasurably self-sustaining. These motions are invariably skillful, although being skilled does not necessarily ensure liveliness.

Developmental movement patterns, their sequencing, patterning, and, at times, repatterning, provide a curriculum structure for health and physical education. It is sufficient that this structure be understood, generally, in terms of kinetic bodily pairings, skill theme developments, and the vitality affects and kinesthetic, proprioceptive, and interoceptive registers of motion. Accordingly, the vitality of posture, position, and bearing is seen to be a function of basic reflexes, righting reactions, and certain patterns of organ and skeletal integration, and to be integrally related to the expressions of stability, balance, extension, and holding a position in gymnastics and dance. The vitality of bodily action is seen to proceed similarly from simple reflexes but with an emphasis on homologous, homolateral, and contralateral motions, their requisite kinetic bodily pairings, and vitality affects as they express locomotion in games and sports. Furthermore, the vitality of gesture is considered a function of the movement integration of one's own developmental patterns and the patterns of others, in kinetic pairings with others, that show various manipulations of territory, time, and objects in games, sports, dance, and gymnastics.

Our point is that the repertoire of movements that constitute active and healthy living has not been generally understood in terms of developmental sequencing and what Sheets-Johnstone (1999) has termed the common wordless ground of animate consciousness. She suggested,

> If we pursued a study of that common wordless ground, we might find a relationship between our wordless kinetic beginnings and our later wordless celebrations of movement, as at the Olympic Games, a relationship we could readily spell out in terms of the sheer experience of aliveness, the sheer nonverbal kinetic experience of ourselves and others as animate forms. (p. 225)

Such a study would link the animate consciousness evident at birth and in original, kinetic bodily pairings to pairings, patterns, and progressions of vital movements taught to children and, in turn, to the skills, tactics, choreographies, and forms of movement that show vitality in the disciplines of games, sports, dance, and gymnastics and that provide an activity repertoire for healthy living. In this study, we might see that the "first rush" of movement, evident in the unbridled enthusiasm of children racing into water (Smith, 2003), extends qualitatively and motorically to the stream or flow of a soccer game experienced by "star" players (Hughson & Englis, 2002). How it does so, and how other vitality affects of surges and flows constitute motoric patterns of soccer offense and defense, should generally, which is to say experientially, sensorially, and kinesthetically, be much better understood.

A study of these developmental patterns would show the quality as well as the form of maturing movement, which amounts to the same thing, except that a study of the developmental movement patterns of vitality would highlight the formal aspects, while practitioners, in the meantime, can be attuned to their own exteroceptive and interoceptive senses of vitality. The present analysis of vitality affects, motions, and developmental patterns has been conceived as such a study. Its phenomenological merits lie in the extent to which it directs attention to movement forms that allow the fullest expression of an animate consciousness that is essentially felt from the inside out. As Cohen (1993) put it, after 35 years of studying the developmental patterns of vitality,

> I work always with energy [or vitality]. I translate it into this physical structure, but I never work for myself from the physical structures. In my own vision, I see all the space but I see poorly the structures in the space; I don't look at the movement, but the shadow of the movement. (p. 113)

Like Cohen, we need not grasp fully, or visualize, the structuring of vital motions to cultivate the foundations of active and healthy living. It is enough to see in the shadows, which is essentially a reminder of the extravisual senses of motion, kinesthetic affects, felt motions, and sensed patterns that become focal points of one's practical, pedagogical intentions. We can then appreciate and cultivate an active and healthy disposition in terms of the expressive postures, positions, movements, and sportive, dance, and gymnastic expressions of vitality.

PROMOTING VITALITY

The title of our exploration of vitality alludes purposely to the term *health promotion*, which has gained such wide currency since the 1986 Health Canada document *Achieving Health for All: A Framework for Health Promotion*. Promoting vitality as the key concept of health and physical education and, more significantly, as the precept underlying efforts to engender active and healthy living practices plays on various connotations of the term *health promotion*. In particular, it urges being pro-motion by, first, restoring to human agency the fundamental capacity for movement, which is not simply some capacity one has as a body that can move but the capacity of a sensing, feeling, and perceiving embodied consciousness; second, by recognizing those specific motility affects, bodily motions, and developmental patterns that appear vitally conscious and phenomenologizing them in terms of an animate consciousness that motivates a healthy and active lifestyle; and, third, considering the implications of our analysis of vitality for comprehensive program development within and even beyond the current rapprochement of health and physical education. We now take up the last of these tasks.

The promotion of vitality has implications for how the key indices of healthy and active living are defined. Emphasis should be placed on the enacted postures, positions, gestures, and expressions that comprise animate, kinesthetic consciousness rather than simply on measures of movement capability. In other words, rather than accepting the current, seemingly objective measures of vitality at face value—the fitness parameters of body composition, cardiovascular capacity, muscular strength and endurance, and flexibility—we choose instead to draw the measures

of vitality from a deeper physical place, from the perspective of the living, breathing, moving person who seeks wellness and a healthy and activity lifestyle as a practice of being physically educated.[6] The common indices of physical fitness can be considered as providing the broadest measures of vitality. They provide a vitality baseline, provided we depart from the numerical count of laps run, sit-ups completed, or centimeters covered in a sit-and-reach test and focus on the vitality affects and internal sensations, feelings, and actions of being composed bodily, having inspirational capacity, exhibiting more than just brute strength, sustaining physical activity with enduring grace, and having the flexibility to reposition, repattern, and so be responsive (i.e., supple, agile, and impressionable) in movement expression.[7]

Promoting vitality has implications for the health and physical education themes on which current provincial programs are based, namely those of body awareness, space awareness, movement quality, and relations. Body awareness becomes more than that revealed by the basic indices of body composition coupled with visual awareness of the permutations and combinations of shapes a body can make (Pangrazi & Gibbons, 2003). It provides an entry point to examining what it means to experience activity through the body and as a certain style and manner of moving as a body that is mine, that carries a "bodily signature" (Behnke, 1995, p. 322) and that can be known as such to other bodies. Body awareness is more than the measured capacity of the pulmonary and circulatory systems to process oxygen and carbon dioxide. The air of respiration is the inspiration of movement and the air of expiration is the voice of movement; blood is the circulatory force of movement joyfulness. Aerobic capacity is thus indicated by the locomotions and gross motor actions that show sustained energy, excitement, and playfulness. Space awareness is more than level changes and pathways one can take and is about the intentional stances one may adopt in sensing an emotive and strong relationship to the world: the feeling of being separated as well as interconnected across space. Lived time, or what the physical education curriculum guides call movement quality, extends well beyond changes in tempo and force to a way of assessing an engaged, expanded, enduring moment. Lived other, or what is termed relationships, is more than a sensation of coordinating body parts or feeling a connection with an object or person; it is a framework for sensing and moving in response to other things and other people, from an impulse expressed from the inside out to sensing a self-world, interpersonal, and/or interobject relationship. Moving from the inside out with the desire to feel a seamless gap between self, others, and the environment challenges the body-part conceptualization of movement and invites a self-other understanding of flexibility, agility, and the facility to bend and stretch and link with others in lengthening contractions.

These somatic movement themes to which health and physical education curricula frameworks lay claim inspire thinking about program effectiveness. Body awareness, space, time, and relationships are experiential indices of the vitality of movements that are taught to children and adolescents within health-related physical education programs. They are phenomenological registers of movement's "spatio-temporal dynamic coincident with the manner in which we are moving" (Sheets-Johnstone, 1999, p. 148) and moving in relation to others and the things around us.

Thinking about movement relationships, in particular, brings us to the final promotional implications to which we draw program attention. Comprehensive health and physical education programs should connect with mental, emotional,

spiritual, and environmental health as essentially derivative of the affects, motions, and movement patterns of vital engagement with others. Elemental movements, emotions, inspirations, enthusiasms, and environmental engagements are somatically based. They carry meanings that need not be separated out in terms of divisions and domains of healthy and active living. Their usefulness as separable meanings for mental, emotional, spiritual, and environmental health lies primarily with diagnostic, remedial, and curative health practices although, even so, we question the division and specialization of health interests and the subsequent efficacy of the relevant health practices as means of mental, emotional, spiritual, and environmental revitalization. Comprehensive programs of health, wellness, and healthy and active living ought to grasp life with all the senses of animate consciousness. These senses, their affects, motions, and movement patterns, are constitutive of the lived experience of being vitally engaged with the world.

Comprehensive health and physical education should connect particularly with environmental health in terms of a movement capacity for environmental engagement (as in swimming, skiing, hiking, climbing, cycling, etc.). This implication strains the current population health conception (Health Canada, 1999), with its emphasis on an individual's relative capacity to use essentially unsustainable health "resources." It is about the vitality of the earth and the many populations sustained by the earth. It is about living with the earth. Health and physical education represent the connection of body and earth, particularly through cultivating the motions of active and healthy living that resonate and reverberate with the elemental motions of tides, waves, and winds (Olsen, 2002). This is the direction in which deep ecology, eco-phenomenology, and eco-pedagogy point, but what has yet to be realized are those vital movements that not only merge the interests of health and physical education but, in turn, disclose the fundamental interests of active and healthy living in terms of a stewardship of the larger world. Such realization is beyond the scope of the present article, but it is certainly not beyond the scope of promoting vitality in and through health and physical education.

NOTES

1. Contemporary versions of a vitalistic correspondence between human and nature organizations can be found in the literatures of deep ecology (e.g., Marks, 2001), eco-phenomenology (e.g., Mazis, 2002), and bodywork practice (e.g., Olsen, 2002).

2. Emphasis on the animate, breathing, moving, sensing, feeling body does not negate the materiality of the objective body; on the contrary, it affects, is affected by, and so casts anatomy and physiology more holistically as the felt, palpable, tangible, and, indeed, observable expression of vitality. As Leder (1998) put it, "The anatomy and physiology of the lived body are always intertwined with the body's intentionality in ways that undermine facile claims of priority. Just as our physical structure lays the groundwork for our mode of being-in-the-world, so our interactions with this world fold back to reshape our body in ways conducive to health and illness" (p. 125).

3. Somatology contrasts dramatically with a "necrology" (Johnson, 1997, p. 10) which, since the times of Galileo, Galen, and Vesalius, has informed a predominantly medical view of the body based on the flaying and dissection of corpses (Moore, 1996).

4. A "population health" approach, despite its laudable emphasis on the determinants of healthy and active living status (i.e., the social and economic environment, physical environment, personal health practices and coping skills, biology and genetic endowment, and access to health services), necessarily generalizes the practices that apply individually and in relation to particular bodies and their persons. For instance, in the case of health care and the funding of mainstream versus alternative therapies,

"when there are questions of national, even international strategies for health involving government policy and vast monies, there is a need for ensuring that this or that healing strategy works for enormous populations, not just a selected few, and the 'working' must be clearly defined and replicable. It must be replicable not only in clinical trials, but in teaching large populations of practitioners" (Johnson, 1997, pp. 3-4).

5. Cohen (1993) has pointed out the in utero myelination of the vestibular nerves, which registers in the movements of the fetus, before the myelination of the cranial nerves, which registers in fetal touch, taste, smell, hearing, and vision. "This indicates that we learn first through the perception of movement. Not only is movement a perception, but as the first perception of learning, it plays an important role in establishing the baseline for our concept or process of perceiving. This original process of perception then becomes incorporated into the development of the other perceptions" (p. 115).

6. Cardiovascular capacity, muscular strength and endurance, joint flexibility, and body composition measured by percent body fat are considered the primary indications of physical fitness and are supplemented by indications of performance fitness (Wall & Murray, 1994) or "performance-related components of fitness" (Gallahue & Donnelly, 2003), which measure agility, power, reaction time, speed, coordination, and balance. The emphasis in the former is on achieving a state of well-being that enables participation in a variety of physical activities; the latter emphasis is on a set of attributes related to the performance of designated physical activities. Shifting our promotional emphasis from participation and performance to motility and its inherent vitality obviates these distinctions and requires more dynamic and interceptive, which is to say, more fully perceptive discernments of the vital components of fitness.

7. The task of reconfiguring the parameters of fitness requires much more attention than is possible in the present inquiry. We do not rule out postural, alignment, and body composition assessments. For instance, Rolfing, the physical therapy of structural integration created by Ida Rolf, works on muscular-skeletal alignments and organ balances through bodily contact, massage, and manipulation. The premise is that human vitality is a function of the alignment of bodily form and function with the energy field of the earth, particularly the gravitational field. There is in Rolfing, as in most bodywork therapies, an ongoing assessment of bodily form and function, but these assessments are not against objective, impersonal norms, like fat-pinch tests or body mass calculations. Vitality assessments of body composition are made according to the flow of energy indicated by enhanced fluidity of motion, movement transitions, and the vitality of posture and bodily composure (see Rolf, 1977). Similar somatic assessments are needed with respect to a cardiovascular capacity that carries feelings and desires associated with sustaining an aerobic-based movement of muscular strength that incorporates pushing and pulling in purposeful motions of succession from core activation to the forceful movement of body extremities (Shawn, 1954, pp. 34-35), of muscular endurance that sustains flexion and extension as effort qualities of continued exuberance and playful purpose, and of joint and tissue flexibility that is the anatomical as well as the experiential elongation of muscles in "active lengthening contractions" (Cohen, 1993, p. 14).

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