

Movement and the Human Body: How Much Attention Do They Deserve in Education?

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Thank you for those very nice introductory remarks. First allow me to thank Dean Fleener and my colleague and good friend Gil Reeve for this wonderful invitation. As most of you know Gil holds a named professorship as Chair of the Department of Kinesiology here at LSU, and as some of you know he is a world-renowned scholar in motor control, exercise and sport psychology. So when a scientist of his stature recommends an old-coach, physical education philosopher like me, it tells you at least two important things about him. He is not risk-averse, and he has tenure. But, as I hope to show in my talk, Gil and I are a lot alike even though we hail from different disciplines that are commonly thought to reside on opposite slopes of the humanities-science watershed. Dean Fleener, as I found out, earned a masters degree in philosophy from the University of North Carolina before she saw the light and moved into education. Thus, among her other duties here this evening, she will be keeping me honest.

It is an honor to be part of your 100-year celebration and to deliver the third College of Education Centennial Lecture. As you have heard, I will be addressing an important issue—the attention that should be devoted in education (pre-k through 12 and beyond) to movement and the human body. It is important because research shows more clearly than ever before that activity makes a powerful contribution to good health. Strong empirical evidence now exists for many benefits of that accrue from regular, moderate levels of physical activity, including lower risk of . . . early death, coronary heart disease, stroke, high blood pressure, an adverse blood

lipid profile, type 2 diabetes, metabolic syndromes, colon and breast cancer. Physical activity can impede undue weight gain and promote weight loss, particularly when combined with reduced caloric intake. It can therefore play an important role in addressing the so-called youth (and adult) obesity epidemic. Exercise improves cardio-respiratory and muscular fitness, helps to prevent falls, reduces depression, and enhances cognitive function—particularly in older adults. The list goes on. Another benefit that I, as a chronic worrier and insomniac, like best is that exercise is associated with improved quality of sleep (President’s Council, 2008). While exercise is certainly not a panacea for all that ails us, it is safe to say that increased attention to the body and movement promises to deliver a great deal of good.

But the call for obesity and activity-related education by the CDC, the Surgeon General, and your own Louisiana Health and Physical Education Content Standards comes at an inconvenient time. It is a time when educators at all levels are under increasing pressure to ramp up efforts in math, science, geography, civics, and other academic subjects. Educators faced with such demands ask reasonably enough, “How much can we do?”, and perhaps even more importantly in an era of increasing accountability, “How much can we be expected to do well?” Nobody would argue that the health of American youth is a trivial matter, but educators of good conscience will, and do, argue over priorities and how to avoid education’s age-old problem of promising too much and delivering too little. In short, this may not be the best time, for a host of strategic and political reasons, to take on new challenges in the areas of health and physical education. So many pieces of the education puzzle need attention. So many competencies need to be gained if our graduates are to compete on the global stage. So much to do and so little time and so few other resources with which to do it.

This kind of thinking moves us either to pedagogical despair or, more optimistically, in the direction of increased parental involvement, stronger governmental policies, more enlightened community planning, the promotion of all manner of out-of-school learning opportunities, and greater pedagogical creativity and efficiency. I do not like the despair option and assume that you do not either. But, because I am not a sociologist, politician, city planner, or developmental psychologist, I will leave these admittedly important issues to others and rather center my attention on pedagogical creativity and efficiency.

Tonight I want to focus on how we conceptualize the educational venture—preschool through higher education. What we think we are doing, of course, tacitly or explicitly sets boundaries on our behavior as educators. So this is anything but an intellectual exercise. I say this because it is assumed that philosophers usually talk in circles and, on those relatively rare occasions when they do not, they drum up conclusions that don't matter anyhow.

My proposal is a very simple one. We hurt the educational venture when we conceptualize it in terms of dichotomies. (I sound like John Dewey, don't I, of whom it was said that he never met a dualism that he liked.) What dichotomies do I have in mind? A major one, of course, is the education of the mind in contrast to the education of the body. This is related to other common educational distinctions: academic vs non-academic, basic vs applied, intellectual vs motor, thinking vs acting, liberal vs professional, technical, or vocational, and the one that supposedly separates me from Dr. Reeve—the arts vs the sciences. I could go on, but you get the picture. These distinctions are so common place and appear to be so benign, that

we find ourselves marching to dichotomous drummers without giving much thought to the destination of the parade.

Let me say quickly that these distinctions gained currency because they have some utility. We typically know what they mean and are enlightened occasionally by the stark contrasts they provide. But that does not mean that they offer the best way to map out our domain, plan our curricula, or even establish our priorities. In contrast to one of the lessons we often teach in kindergarten, I want to say that messy can be good. Ambiguity can be beautiful. Degrees of difference sometimes help us hit the truth nail right on the head. Integration, interpenetration, mutual dependency, reciprocal causation, and complementation may present better pictures of how it is we educate our youth than the often simpler models provided by dichotomies, dualisms, bifurcations, mutually exclusive categories, academic silos, one way, linear causation and all other neat and tidy ways of organizing knowledge, dishing it out, and assessing progress.

What in the world does all of this have to do with the amount of attention paid to the body and movement in education? It turns out to have quite a lot to do with it. Among other things, it sets the stage differently and forces us to reframe the two questions that were implicit in my introduction. When I rehearsed the litany of goods that come with physical activity, I implied that tending to the body, putting the machine into motion, getting our students to spend more calories in activity—that all of this promotes something called health . . . longer life, less risk of type 2 diabetes, and so on.

But this is too easy. Health is messier than that. It is related to what our students believe, what they hope for, whether or not they are interested in life, whether or not they are in loving and caring relationships, and yes, whether or not they move very much. As much as we physical educators might like to compartmentalize health, and as much as we would like to say to the rest of the academic community that health is mostly or exclusively the property of health and physical education, we cannot do so. In fact, one of the great paradoxes in meeting health objectives is that health may be best promoted when we do not focus on it. It could be that we promote health most effectively when we help our students fall in love with biking, or help them find personal meaning in running or rock climbing, or when music teachers give students new perspectives on life through sound and rhythm, or when English teachers promote a zest for life through good literature. Health is not mental or physical. It is not liberal or illiberal. In fact, health (if we were to think of it in terms of membranes and liquids) leaks. It leaks prolifically. . . in two directions at once. Human health leaks into most everything else, and most everything else leaks into it. I will return to this idea later in the talk.

The second issue mentioned in my introduction that requires rethinking is the matter of prioritization at a time when educators are asked to do more, often it seems, with less. Perhaps you noticed that I set up this dilemma in terms of a zero-sum relationship. That is, if more time is given to math, science, and English, less time would be available for physical education and visa versa. Zero-sum thinking, of course, is the stuff of dichotomies and dualisms. More of this, less of that! But if we transcend dichotomies, we may see that zero-sum mathematics (even though there is an element of truth to it) has not been serving us as

well as we thought it was. Is it possible that education also needs a kind of sum-expanding logic to account for its success? We will have to see.

I mentioned previously that health leaks, and I would like to play with this idea for a while. I am convinced that one of the biggest mistakes we are making in contemporary health-focused physical education is to focus exclusively on moving as something that we need to do, something that is good for our students. Movement, like most everything else in life, is ambiguous. People both need to move and want to move . . . often at the same time. The needing can infiltrate the wanting and the wanting returns the favor by strengthening the needing.

But when we focus too narrowly on the duty, the needing, the prudence, the rationality of moving, we hurt our cause. Exercise remains an obligation, something like sweaty medicine—that is, a potentially-embarrassing, body-exposing, hair-ruining, shower-requiring, sore-muscle producing, exhaustion-generating, point-deducting-if-you-are-not-dressed, inconvenient, medical elixir. How sad for movement to be so badly distorted and poorly advertised! How sad for our children and young adults who never taste the joy of moving and who, because of this, typically put off exercise until “later,” just like you and I do with so many things that are good for us but do not speak to us at a personal level. If this is the way that physical education will lay its claim to more time in the school day, I am not sure it will be successful. Or let me put it more carefully. I’m not sure it deserves to be successful.

Most contemporary physical educators would agree that activity should not be presented merely as a duty. As much of our literature suggests, movement should be

experienced as “fun.” But fun here is primarily a means to an end. The logic for the utility of fun goes like this: If movement is only a duty, students will not persist. If students do not persist, health objectives will not be achieved. So fun needs to be added to the exercise routines to avoid this unfriendly outcome.

This reasoning keeps physical education walled up in the health box—albeit with positive affect. In addition, it is not clear that it works very well. Promoting something called “fun” in a context of pressing health objectives is easier said than done. I am convinced that some of our most well-intentioned professionals become, as I like to call them, playground killers. They whisper in one ear of the child, “enjoy this,” and in the other, “you need to get fit.” In a recent article, I wrote about this potentially harmful practice.

One veteran and highly respected elementary instructor told me recently that she ‘sneaks in’ the health message ‘every chance I get.’ ‘And,’ she added, ‘I do this faithfully from kindergarten through sixth grade.’ I admire and honor [this teachers’] intentions and perseverance but wonder about the efficacy of mixing educational messages and objectives in this way. What does a youngster think when we say we are going on a treasure hunt into the woods adjoining the school yard and then attach . . . pedometers and record the number of steps that [were] negotiated on that trip? Where is the child’s attention? Is it on the ‘treasure’ that is to be found and the related adventure or on the numbers? If I am interested in growing a rich playground for this child, do my chances of doing so increase by objectifying caloric expenditures or leaving them in the background? (Kretchmar, 2008, 169)

Of course, when I speak of growing playgrounds in these terms I am not referring to physical facilities or the construction of slides and jungle gyms. I am talking about a psychological place where we experience increasing amounts of joy and meaning, a place we want to visit, a place where activities are enjoyed for their own sake. We all have our own

playgrounds (associated perhaps with reading, gardening, listening to music, cultivating friendships, and engaging in any number of hobbies). These playgrounds adorn our lives. They make our days go better. They improve the quality of our lives. This provides a second, and very important, reason for giving educational attention to the body and movement. But the significance of this liberal arts side of physical activity can be seen only if we place it in the reciprocal, messy context in which it works best. Playgrounds do not just adorn. They leak into health and health leaks back into them.

This interpenetration of playgrounds into health occurs at many different levels. One of them, of course, is the physiological level. When we are loving our tennis racket and communing with our bicycle, our hearts are pumping, our bones are bearing weight, and those blessed calories are being spent. The diffusion also takes place at a more psychological level. When we are trying to reach a summit we have never reached before or when we are competing with a friend we have never beaten, we find life compelling, interesting, worthy of our attention. Time flies. We are engaged in something meaningful. And this love of life falls, as Shakespeare might say, as gentle rain on our muscles and ligaments, our cells and chemicals. As research is beginning to show ever more certainly, those who love live longer (Weil, 1997).

And so the artistic physical educator, the one who is able to build durable movement playgrounds in the lives of his or her students, initiates a most salubrious reciprocal relationship. Activity playgrounds bring with them improved health, and improved health returns the favor by presenting even more and better activity playgrounds. The play and the

health are hard to separate. Round and round in a kind of educational dance—intrinsic blended with extrinsic, thoughtful with physical, playful with prudent, high heart rates with lots of joy.

You are probably already thinking that this educational model has the potential to work throughout education. I think you are right. When I was a youngster, my father used to read poetry to me every night as I was being tucked into bed. I hated it. He would come upstairs with his book of 101 famous poems, and he would begin reading, and he would be moved . . . sometimes almost to tears. I would wait patiently for it all to be over. Poetry and the required readings my father subjected me to was, as best I could figure at my tender age, some kind of educational medicine.

But you know what happened! Almost against my will, I began to like it—the poetry, I mean. I even began to read it on my own. Later, I started to attend poetry readings. My father had taken me from the barren desert of words strung out in strange ways in something called “verse” to an intoxicating verbal playground of sorts. Time spent on this playground seeped into the rest of my life. My vocabulary increased, my skills with syntax grew, my ability to appreciate metaphor and allusion expanded, and of course in return, I began to receive invitations from even more complex and advanced verbal playgrounds. ‘Round and around in a blended intrinsically-extrinsically gratifying-helpful dance.

In light of these reflections, dare we dichotomize serendipity and duty and treat them as discrete ways to motivate our students? Should we import fun and patch it onto lessons that are not seen to have any playground potential? Should we try to “sneak in” health messages as if they came from the outside? Or should we let healthful lifestyles grow, as it were, from the

whole of us and our students? Perhaps we do better when we think of our students in terms of complementary pairs—as dutiful~lovers, as prudent~fools. Such descriptions sound like contradictions. But if we replace dichotomization and dualism with complementation, they may begin to make more sense.

Some might wonder if physical activity has the kind of far-reaching potential I have been claiming for it—that is the ability both to adorn and promote health. I think it does. It can speak to the whole person. We are our bodies, after all. We are born to move. We are built to move. In an important anthropological sense, we were not designed to sit—not chemically, not anatomically, not physiologically, socially, psychologically, or even spiritually. It goes against the grain to sit motionless; to be deprived of touch, feel, sound, texture, color; to commune virtually rather than face to face.

Of course, there are a few movement ascetics, like the late University of Chicago President Hutchins, who was supposed to have quipped when asked what he did when the urge to move struck him, “I lie down until the feeling passes.” Like Hutchins, our school children too have difficulty with extended periods of inactivity. However, if we are unaware of how severely we might be requiring them to go against the evolutionary grain, we may well ask them to continue sitting until the movement playground feeling passes.

This inbuilt need to move should not come as a surprise. Our ancestors were hunter gatherers for 2 million years (Leakey, 1994). We Americans have been a post-agrarian, sedentary culture for perhaps 200 years. If form follows function, if nature is shaped via nurture (Ridley, 2003), if our brains (and all the rest of us) have been modified by what our

ancestors did, it is little wonder that we often prefer to be in active environments rather than sedentary places. By a ratio of 10,000 to 1 we have been built to find meaning-health in movement.

So perhaps we should go with the anthropological truism that we are (to a degree) who we were. Let's provide enough time in school to grow one or more movement-based playgrounds for our children—hiking, swimming, biking, walking and bird watching, gardening, dancing—it doesn't much matter as long as it combines intrigue and activity. I use the term "grow" intentionally. Introducing will not do. One night or even a few nights of poetry reading by my father would not have done the trick. Some playgrounds do not produce a love-at-first-sight reaction. To grow a playground is to lead a student into a wonderful domain by teaching skills, developing habits and appreciations, and presenting knowledge. If this patient development were to take place, anybody who finished the 12th grade, anybody who graduated from college, would periodically receive invitations from at least a couple of movement places that promise to take them away from their chairs and that are sure to reciprocally delight and strengthen them.

The second issue I mentioned a moment ago has to do with an even more difficult matter—the relationship of physical education to other subjects that deserve attention in our schools. This issue, as I've already noted, is difficult because it is politically sensitive—particularly when we are working with limited numbers of hours and weeks in the school year. This is where the "we versus they" thinking and dialogue sometimes gets strident. How much time should we devote to movement and the body when we are falling behind other countries

in math and science? Does anyone have the right answer, and how would we know it were it to be put right in front of our faces?

I think these are the wrong questions because pitting the mental against the physical, the intellectual versus motor, academic subjects versus all the others, is mostly counterproductive. People don't come in parts. There is no mental part of me that can get filled up with education as if I were made up of one or more empty vessels. And there is no physical part of me (a machine, as Descartes pictured us) that needs the attention of a mechanic from time to time. We are mindbody, fleshyintelligence, situatedinsight, a unity of curiosity, potential, and educational malleability. It is only when we artificially abstract the parts that we delude ourselves into thinking we have a part of the child. To be sure, I can exercise this youngster's limbs and, in that sense, serve as the physical education mechanic. But the whole child comes with the limbs—no, that's not even right. The child comes (in part) as the limbs! Boredom and intrigue come with limb activities of different sorts. An unfolding limb storied child limbs into my gymnasium. I delude myself, and dramatically limit my pedagogical success, when I try to isolate the limb or focus on the machine.

So where does this leave us? If English and math teachers do not educate the mind, and physical educators do not educate the body, what gets changed? It is the person, of course, the whole fabric that changes. At bottom, minds are not terrible things to waste (because there aren't any) but a human being who fails to reach his or her potential is. Progress is not measured by how full the compartments are, but what our students as integrated beings can do and where they can go. Our students' existence should not be

measured by the logic of Descartes. “They think. Therefore, they are.” It should be measured by the more holistic claims of Merleau-Ponty. “They can. Therefore they are.”

Once we jettison the mental-physical distinction as a dominant theme in education, the learning terrain changes in dramatic ways. Instead of attempting to ferret out what is most intellectual, academic, or mental, we can ask a different question, one with which I am sure you are all familiar. What do our children need to know and do? Or the way I like to phrase it. In how many places should a person be able to solve problems successfully?

Those who are better educated can do two things that their lesser counterparts cannot do. They can go to more places, and they can solve problems in those places better. What kinds of places am I thinking about? Numerical places, verbal-linguistic places, musical, social, emotional, kinesthetic, motor/spatial places. This suggests that intelligence is not homogenous. It suggests that, as Gardner (1983) put it, we have multiple intelligences. Part of the power of this idea comes from the notion that smart is tethered not to part of a person but rather to kinds of problem solving—or in my language, different places. That is, a human being can be relatively quick or slow, relatively educated or uneducated, in different problematic situations—say, quick at the keyboard, quick at hearing a foreign language, and slow with problems related to spatiality and direction. Education, on this view, is not about training or otherwise advancing the mind. It is about educating people for problems solving in important (and interesting) places.

If you are thinking that some places deserve more attention than others, you are right. However, now the discussion is grounded in the pragmatics of what is needed and what works.

As we educators assess our culture and our contemporary needs as well as likely future societies and future needs, we can then make careful judgments about places our students will need to go and the habits, skills, and knowledge required for the journey. Because problems do not remain static, education does not hold still either.

This might seem, however, to get us right back to where we started—in a rancorous zero-sum battle over who gets more hours in the school day. For example, many would claim that we need to travel to technological places if we are to compete in the contemporary global economy. That means more math, science, and engineering and perhaps less English, philosophy, and physical education. But we have to be careful about following this line of reasoning too quickly and too far.

The reason for this caution lies in the fact that problems do not come neatly packaged. Success in team sports, for example, does not require just motor or kinesthetic intelligence. It also requires communicative, social, and emotional capability. Music seems to be closely related to math according to some research. Spatial intelligence may be related to problem solving in engineering and philosophy. The logic of philosophy is related to problem solving in all kinds of places. Our academic silos are not really silos at all. Education, as Dean Fleener, once wrote, requires that we “understand [education] as a complex web of relationships” (Fleener, et al, p. 3)

Neuro physiologists are now finding out what all of us guessed was true a long time ago from our own lived experiences. Intellectual capacities (whether musical, mathematical or something else) do not reside in any single structure of the brain (Smail, 2008). And in the real

world of colors, sounds and experiences, problem solving in a more-or-less motor place, for example, cannot be limited purely to motor problems. Our brain doesn't work compartmentally, and our real life problem solving is not entirely compartmental either.

Nevertheless all of us in this room are trained to help students solve certain kinds of problems more than others. As a physical educator, I'm good at helping with movement places and their resident problems. My favored media are timing, touch, balance, endurance, accuracy, gravity, physics, grace, poise, cooperation, competition, non-verbal expression, recovery, determination. I need to be a specialist~generalist—reliant on time, space, force, but also in touch with physiology, culture, politics, spirituality.

This interconnectedness may be seen most vividly at advanced levels of performance where movement begins to move in the direction of art. The experiences my activity students have at the outer reaches of movement problem solving almost defy description. Hard becomes easy; fast becomes slow; heavy becomes light; places that were too far away are now inviting them with a siren call. They are carried away on the wings of delight. What they accomplish, they will never forget. Paradoxes abound. Imagery and allusion are required to say what happen. And so movement, without too much exaggeration, becomes a kind of poetry without words. And so too, smart works in a lot of different places . . . with the help of training and education.

I like the imagery of places rather than parts of people when considering tough educational choices and decisions because it is more democratic and because it jettisons the language that supports traditional biases of mind over matter, head over body or heart, and

rigid normative hierarchies for our different school subjects. Under this more democratic vision of education we can honor the dance of particles and waves . . . and the dance of ethnic groups, the homeostasis we find in physiology . . . and the balance that is often characteristic of good ethics, the mathematics that are inherent in sport probabilities and statistics . . . and the beautiful form that can be found in a parsimonious equation.

In a messy educational landscape like this, it is difficult to apply zero-sum thinking. The walls break down. Long standing divisions between disciplines or school subjects, while still visible, matter less. We physical educators are not even sure if spending time studying the activity-friendly, outdoor politics of a Teddy Roosevelt, the movements of Sartre's skier, the robust lives of many of Hemingway's heroes, or the biology of cardiac stroke volume should be subtracted from our clock or perhaps seen as complementary to our overall goals of joyous~healthful movement.

And given the fact that little causes can have big effects in this uncertain world of education, any division of the educational pie based on hours alone is sure to be short-sighted. The laboratory of sport and movement provides experiences that run the gamut of the curriculum. The very American blend of individual and team that we see in baseball, the social stratification that kept African Americans (until relatively recently) from playing quarterback, the chemistry of performance enhancement through the use of steroids, the physics of mechanical advantage in pole vaulting—all of these things, even in little doses, might have larger eye-opening, friendly effects in other domains of the curriculum.

It is important to note the language I used in my title. Do the body and movement deserve more attention in education? I did not ask if they deserved more time. Attention can be devoted across the curriculum—as indeed it should be. It need not always come out of someone’s hide. And more attention is deserved, I have argued, because we are not about health alone. We are about the interpenetration of health and meaning, low heart rates and high joy, more love and more life.

Nor are we about the body, mechanistic movements, things physical. We are dedicated to solving problems creatively in a most intriguing, more-or-less unique place—a place, however, that is connected to every other problem solving place in education and one that stands in a reciprocal beneficiary-benefactor relationship with the places that have captured your attention and about which you can speak with as much fervor as can I about the movement domain.

Should more attention be paid to our bodies and movement in education? Of course it should. We are our bodies. We are built to move. Movement playgrounds need to be grown. They need to exist side by side and intermingled with musical, verbal, mathematical and all sorts of other playgrounds. When we achieve that goal we will have at least partly replaced old dichotomies with complementary pairs. We will not think of utility and meaning, duty and joy, workgrounds and playgrounds as alternatives. People like Gil Reeve and I will not have to struggle to figure out how a motor control silo is related to a philosophy silo. All of us with considerable pride and with Dr. Seuss directing from the background, will be able to sing , “Oh

the places our students can go! Oh, the many and wonderful~useful places our students can go.”

And so, perhaps as it should be in a talk about playgrounds and holistic messiness, I will allow Dr. Seuss and children’s literature to have the final word.

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