

## Interactive Flow in Exercise Pedagogy

Rebecca J. Lloyd and Stephen J. Smith

A phenomenology of the bodily experience of interactive flow adds to Csikszentmihalyi's flow theory. Whereas Csikszentmihalyi attended to teachers' and students' experiences of flow separately, this inquiry explores flow through three water-inspired layers of physical interaction between fitness professionals and their clients. Teaching fitness is likened to the emotive experience of surfing the ocean peaks, swimming in the shallows, and diving deep beneath the surface. As a producer of high, immersed, and deep flow, this teaching moves actively from an elevated stage of one-sided instruction to motions of deep, other-directed absorption. Learning to teach in this flow-producing way is portrayed through first-person accounts of the intensification of closeness, connection, reciprocity, and mutuality between fitness professionals and their clients. This study, with its reference to the postures, positions, gestures, and expressions of fitness instruction, indicates a kinaesthetic register of flow consciousness that serves as a guide to effective exercise pedagogy.

To truly question something is to interrogate something from the heart of our existence, from the center of our being. (van Manen, 1997 p. 43)

Van Manen alludes to the difference between simply asking a research question and living a research question. If we explore a question that moves us from the "heart of our existence" and wrestle with it on a personal, professional, and philosophical level, the end result is often felt in the way we experience the world, interact with others, and continue to form future questions. The question *What is the nature of flow in fitness and personal training instruction?* has done just that.

Fitness instruction is something that Rebecca, the first author of this article, has been involved in for over sixteen years at community and international levels, yet only began to examine deeply and critically when the question of what makes such instruction pedagogically justified came to her attention. Rebecca was an in-demand instructor who enjoyed the up-front work of leading fitness classes. Yet, increasingly, she realized that performing a flawless, pre-choreographed, aerobics routine or a preplanned personalized training program did not mean that meaningful pedagogical interaction had taken place. In questioning the "high" that comes with such fitness instruction, and seeking alternative modes of teaching, Rebecca realized that pedagogical flow can extend beyond the realm of individualized peak

---

The authors are with the Faculty of Education, Simon Fraser University, Burnaby, BC, V5A 1S6, Canada. E-mail: [rjlloyd@rogers.com](mailto:rjlloyd@rogers.com).

experience characterized in Csikszentmihalyi's (2000, 1997a) flow theory. Shifting her position in fitness classes and changing her instructional relation to clients created a different, more interactive sense of flow, which appeared to have greater benefit for the clients she taught and which transformed the pedagogy she now professes at continuing education courses for fitness professionals.

Living the question of the nature of flow in fitness and personal training instruction lends itself to phenomenology. As both an attitude and a method, phenomenology shapes this question around considerations of the lived body, lived time, lived space, and the lived other (van Manen, 1997) as the existential heuristics of experiencing flow. Accordingly, as Rebecca reflected on the nature of interactive flow in teaching and training interactions, she focused on the body dynamics of relating to another in various tempos and through different proximities. Descriptions of the configurations of lived body, space, time, and the other helped distinguish the "high" flow experience of leading an exercise class through an automatic, pre-planned routine from the "deep" flow experience of using grounded, other-directed motions of reaching out and making a lasting difference with an exercise client.

This article borrows heavily from Rebecca's doctoral thesis (Lloyd, 2004) to portray a phenomenology of interactive flow that builds on the psychology of individually-defined flow to which Csikszentmihalyi has been a major contributor. It is a study that follows the phenomeno-logic of flow as it is experienced and understood in interactions with members of exercise classes and fitness clients. We take a phenomenological interest in the phenomenon at hand by relying on the lead author's first-hand experience of it. We consider interactive flow as it is lived through rather than as it has been conceptualized. We investigate this lived experience by means of the existential heuristics of space, time, body, and the other. In so doing, we also outline an exercise pedagogy of interactive flow. We describe the flow experience through a teaching orientation that aims at the best interests of the fitness student and client. We render the pedagogical meaning of interactive flow as a text for scrutiny by others who are similarly animated in their interactions with students and clients and motivated to enhance their fitness instruction and personal training.

## Peak Pedagogical Flow

Etymologically "flow" comes from the Old English word "flowen." The root "floa" means to boil milk, hence the heated formation of fast moving bubbles, and "to flood" (Skeat, 1963). To "go with the flow" infers that one is traveling in the direction of the stream or river. Apart from the vortexes or eddies associated with fast moving water, there is a natural downward valence in the terrain that precludes the possibility of flow or fluid movement. A bobbing piece of driftwood is a prime example of "going with the flow" as it does nothing to modify, chart, or contribute to its downward path. Perhaps it is for this reason that Csikszentmihalyi asserts that going with the flow, "an expression used by the counterculture of the 1960s," is in "some ways antithetical to what flow means" (Csikszentmihalyi, 2000, p. xviii). Jackson and Csikszentmihalyi (1999) explain that "going with the flow" implies "a laissez-faire attitude, where one is taken along as if on a ride that requires no effort of one's own" (p.115). An active surfer standing on a carved out piece of wood or

fiberglass, in contrast, uses the resistance of the water to carve her own path while connecting to the larger environment in which she finds herself.

Full body wetsuit, blue board with flowers at the nose, rolling white waves, walking out dunking the nose of the board under each dumper, looking to the horizon to choose the perfect wave, waiting . . . seeing the crest just about to happen, paddling hard, getting in front of the wave, feeling a force bigger than myself push me forward, arching my back, holding the rails, springing to my feet to a sideways low stance in one motion, feeling natural ecstasy—there is a god. (Personal Journal, 2002)

What becomes increasingly apparent is that the active and reactive nature of the flow experience carries the quality of “pleasurable exertion” (Feldenkrais, 1980, p. 77). Again taking etymology into account, it becomes obvious that flow “emotions themselves are a kind of motion, hence we say we are ‘moved’ when we experience deep emotion” (Mazis, 2002, p. 160). The dimension of lived body, the perceptive experience of surfing, changes through the other dimensions of lived space (the downward valence of moving water), and lived other (interconnecting with a body of water). The range of emotive depth is significantly affected by the pitch of the wave or the ecological and perceptual layers of depth. Surfing combines both the vertical feeling of high flying rapture in the act of looking over the steep downward slope of the wave’s crest in an arch-supported paddle and ecstasy in the more-than-body and almost out-of-body sideways low stance.

Looking over the downward pitch of a wave from a surfboard somewhat resembles the sensation of looking over the edge of a cliff. Here one may be caught in the terrible beauty of wanting to merge with the depths of the beckoning baby-blue sea. Leaning over and looking out over the sea, one might sense Cataldi’s (1993) intertwining of James Gibson’s (1986) “distance from here” and Merleau-Ponty’s notion of “depth as we experience it” (Cataldi, 1993, p. 39). The water isn’t a separate objective or disconnected entity. It has the phenomenological depth of the continuous recessed surface that interconnects “here” and “there.” Cataldi refers to this distance as sensitive space, an emotional and perceptual connection to depth that we experience. Merleau-Ponty asserts this connection through his “thesis of the *incomplete* reversibility of the Flesh, to think proximity and distance together, as ‘mutually synonymous’” (Cataldi, 1993, p. 76). The elemental concept of “Flesh” is what allows Merleau-Ponty to make this interconnection.

The flesh is not matter, is not mind, is not substance. To designate it, we should need the old term “element,” in the sense it was used to speak of water, air, earth, and fire, that is, in the sense of a general thing, midway between the spatio-temporal individual and the idea, a sort of incarnate principle that brings a style of being wherever there is a fragment of being. The flesh in this sense [is] an “element” of Being. (Merleau-Ponty, as translated by Alphonso Lingis, 1968, p. 139)

The beckoning sea is not just below us. We feel what Merleau-Ponty (1968) terms the indissoluble link between the ocean and the sea in front of us. The imagined reality of jumping over the edge exists in that moment of both fear and wonder. If acted upon, one would certainly experience the primordial intertwining

of the flesh and fluid; however, it is that very possibility and the beauty associated with both inter-human and inter-water relationships that interconnects both “the experience of flow and the appreciation of the romantic sublime” (Stranger, 1999, p. 270).

The experience of flow in surfing and, in turn, of the merge of flesh and fluid elsewhere provides context for considering a similar kind of flow experience in other exercise and fitness settings. Rebecca’s first reflections on flow in fitness instruction took place at a national conference where the stakes were high and where the vertical pitch was evident in her positioning on an elevated stage. A journal excerpt describing how she prepared for and experienced flow in group fitness follows.

It was the excitement, the collective energy of the performance that first attracted me to become a fitness leader and present education workshops at fitness conferences. I wanted to feel the excitement of presenting new moves and step up the level of challenge by being a leader of leaders rather than a follower. I took the preparation phase very seriously. I pre-choreographed my entire hour-and-thirty-minute routine and practiced it over and over again matching each sound effect with a specific movement on my Power Music aerobics tape until it was automatic. I remember choosing to give up my summer holiday ritual of lying in the sun, smothering on sunscreen, and enjoying intermittent dips into the river. Instead, I had on my running shoes and aerobic shorts and I was repeating the sequences of knee-ups, step touches, and six-count stomps that occasionally crossed a phrase. I did not take a second to turn around to the waterfront and soak in the beautiful view of the willow tree that my Dad planted as a small shrub and which blossomed into a huge fountain of green on the shore of our beach. Instead, I peered into the patio door reflection repeating my verbal cues, associated movements, and directional changes until my recall was 100%. By the time I got to my stage, I was filled with a huge surge of electrifying energy. My performance unfolded and I felt the whole room moving to a collective beat. The upturned smiles and transitional synchronicity transformed the multidirectional patterns of “knee-ups” into ecstatic spine-tingling sensations. It didn’t feel like an hour and a half went by; I just felt the sensation of one movement flowing into the next. My automatic responses to the music completely consumed me. Not once did I doubt what I had to do next. Nothing distracted me from being there, in the moment, teaching this aerobics routine. Thinking back, I am surprised that I didn’t worry what they thought of me being a first-time presenter. I just felt that I had something special to offer. I knew from the direct feedback in the glowing faces and sweat glistening bodies that they were feeling what I was feeling. (Personal Journal, 2001)

What Rebecca felt, according to the characteristics identified through Mihaly Csikszentmihalyi’s 25 years of research, was the experience of *flow*. In the state of flow, there is a balance between challenge and skill, a sensation of action merging with awareness, a set of clear goals, immediate feedback to one’s actions, the feeling of distraction being excluded from consciousness, no worry of failure, a loss of self-consciousness, and a distorted sense of time (Csikszentmihalyi, 2000, 1997a, 1996). To Rebecca, being fully motivated to be the best performer she could be

was the ultimate challenge. She wasn't presenting for the money. In fact, she was not paid for this event or the preparation of it since that was the custom for first-time presenters at this conference. She simply wanted to know that she could do it, prepare for it, and enjoy the feeling of connecting with the fitness participants. In her mind, she was at the top of her field, having taught fitness for close to ten years and believing she had something to share and teach. Rebecca thought nothing of the somewhat "self-directed," energy-reaping flow experience being sought on many levels. Feeling the "collective effervescence" made the risk of putting herself on stage in a possibly vulnerable position worth taking (Stranger, 1999, p. 265). Making the transition from teaching at the club level to performing at the Convention Centre was comparable to a surfer "search[ing] for a larger more challenging wave" (Stranger, 1999, p. 267). She couldn't wait to feel again the rush and the ecstatic sensation of being up front. She continued to dream up workshops and submit proposals to present year after year.

This attention to flow is drawn to the pleasure felt in reaching a level of emotional automaticity on a frequent basis. When "play" is pressed on the stereo, the body responds. It doesn't matter if one is feeling down in one's personal life. The pull felt to engage in the energy exchange of "collective effervescence" takes over completely. Tiredness and depressing moments of the day dissipate as the body fills up with movements of the other. The flow experience is similar to what the surfer expresses in "los[ing] yourself [through] tapping into a power that's greater than you," especially at special events such as fundraisers or conferences where two hundred or more bodies move to the same beat. One becomes, in essence, "part of [the same wave]" except that the position remains that of riding it from above (Stranger, 1999, p. 270).

There exists, with this experience of flow, a type of reversibility which Merleau-Ponty (1968) referred to as feeling "the flesh of the world [...] indivision of this sensible Being that I am and all the rest which feels itself in me, [the] pleasure-reality indivision" (p. 255). Seeking, providing, and receiving pleasure is a regular occurrence in such "hyped up" events. There is a similar "hyperindividualistic, amoral hedonism" found in surfers who "surf for the same reason. . . . [They] perpetually flog [themselves] to the heights of orgasmic pleasure—because it feels good" (Stranger, 1999, p. 274).

Rebecca didn't question her pedagogical approach. She presented the exercise curriculum in a performative way comparable to what everyone else was doing. But now, some years later, there is a realization that performing pre-planned lesson formats and energizing a group of people to the height of pleasure do not necessarily constitute instruction. Cultivating an ecstatic moment of synchronicity does not necessarily infer learning. The bubble of individual flow burst. It became time to reflect on a different kind of flow that is not performative, but deeply engaged—flow that is not comparable to the thrill of seeking a new challenge or feeling the transcendental moment of being on top of a wave or on top of a stage. It became time to understand what it means to be deeply involved and in touch with an instructional body and the bodies of those being instructed in group fitness classes and personal training sessions.

Rebecca questioned not only the standard version of group exercise instruction but also the individualistic experience and collective synergy of flow that sustains it. There must be another kind of flow that is not just active but *interactive*<sup>1</sup>

that is subjectively felt and intersubjectively shared and that is expressed bodily and communicated through the connection of expressive bodies. In addition to Csikszentmihalyi's *active* and *reactive* flow that sustains a particular version of exercise instruction, there must be an *interactive* flow in which class members, clients, participants, and students can become more responsible for the feelings, progressions, and maturations of their own movements.

## Flow Dynamics

The interactive dimension of flow has yet to be explored in teaching relationships. Csikszentmihalyi's (2000, 1997a, 1997b) theory of flow fits the type of experience described above that is performative in nature and focused on the teacher's delivery of a lesson. Csikszentmihalyi's experiential sampling research method<sup>2</sup> targeted such "teacher-oriented" flow experiences and pointed out that students who appear to be listening to a lecture are typically thinking about "their dates, their coming football game, how hungry they [are], and how sleepy they [are]" (Csikszentmihalyi, 1997b, p. 6). To address the lack of student flow, Csikszentmihalyi downplayed the role of the teacher and focused on the individual flow experience of the student interconnecting directly with the subject matter. He suggested that students learn how to self-monitor, find their own sources of feedback, set autonomous goals, discover their balance between challenge and skill, minimize distractions, focus on the process over results, and have a choice in selecting growth-producing material (Csikszentmihalyi, 1997b). Certainly the onus of flow responsibility can be put on the student. For instance, Mandigo and Thompson (1998) used Csikszentmihalyi's (2000, 1997a) skill-challenge model of flow and reported favorable results from having students independently find "optimal levels of challenge." But the pedagogical question remains: How does the student learn to take on such responsibility and what is the instructor's role in helping the student become so responsible? How, in other words, is the flow experience shared, cultivated, and subject to teacher influence? These questions draw attention to an active sense of flow and the lived experiences of teachers and students, instructors and participants, trainers and clients, interacting with one another.

In our continuing focus on the flow dynamics of exercise pedagogy, in contexts where the primary goal is to become fit and strong, we are interested in how active, and indeed physically inter-active, this flow cultivation can become. Accordingly, when Rebecca reflected on flow in personal training, a seemingly interactive encounter, she realized that the replacement of a group with an individual does not necessarily make the pedagogy more interactive. She, like other members on her personal training team, was more concerned with the delivery of a preplanned program where she could lead her clients through each motion so that they could "go through the motions" of getting into shape. Although not elevated perceptually in terms of being on a stage, distance was created by taking up a position of authority. Flow in this kind of personal training relationship was characterized by the loss of *chronos* time, in being consumed by the completion of a program of exercises, sets, loads, speeds, and rest intervals. She was not alone in this approach to training. The following example captures the experiential feel of taking a client through a pre-planned program.

William stands behind his client, John, in a way that exudes pumped-up energy. His white T-shirt is loose enough to look professional but fitted in a way that reveals his hypertrophied, full-bodied stance. There is something primordially sexy about him. Perhaps it is the way he gets excited about getting stronger or the deep throated grunts that surface as he pushes as hard as he can in his own personal workouts.

William enjoys the program planning aspect of personal training and often researches the best ways to organize and sequence exercises for bodybuilding over the Internet. The neatly written program is placed on the nearby ledge and at the beginning of the pre-set rest interval, he diligently revisits the card and adds the correct weight and repetitions for each set. As William returns to the bench, his attentive squeeze on the timer of his watch signifies that the rest is over and it is time for John to do another set of incline presses. John reaches down for his weights and snaps them up into the ready position. William leans in and grab's John's elbows to help steady the set-up. As John finds the groove or steady pathway from the 90-degree elbow flexion in the down position and full extension in the up position, William releases his touch and stands back to watch with uncanny intensity. He looks as if he is transferring energy from his attentive stance to John's push. Nothing else exists in this moment. William is fixated from afar, sending motivational energy through his solid, upright posture and semi-clenched fists—a stance which encourages John to go for at least two more reps towards the end of the exercise. John puts the weights down while William reaches for his watch to click the timer for the next rest-interval. (Personal Journal, 2001)

William connects with his client. Nothing detracts from their interaction, and all that exists in their intertwined consciousness is the next movement of the pre-set workout. William's attentive presence makes a difference in his client's movements. John is motivated to do two more repetitions than he would normally have done on his own.

Similarly, one's confidence is elevated when someone nearby channels his or her energy into the movements. One feels the enhanced power of squeezing out one more repetition. Nothing else exists except that push or pull. There are no distracting thoughts, just an energy surge that culminates in all-consuming push or pull through weight plates and beyond. Everything goes up—energy is up, the weights move up, and it feels like the entire roof may lift up.

Watching another do a channeled push or pull sends resonating feelings of excitement. The mouth goes dry remembering the anticipation felt at the beginning of the lift as the metal bars are grasped in the perfectly centered position. Two to three strong exhales and. . . . If the most important thing is the amount of weight lifted, then one can relate to Leslie Heywood's (1998) description of the traditional weight room experience:

where [weightlifting] bodies parade around dressed in bright tights, flexing their forearms, shaking their willowy legs, circling each other like so many peacocks unfurling themselves for display. Where an extra five pounds lifted is a cause for joy; where the magazine racks are full of paper curled up in sweat of the thousand hands that turned over their pages while making the Stair



Master or treadmill churn through its lonely mechanical course. (Heywood, 1998, pp. 1-2)

Leslie Heywood (1998) draws our attention to the external image of the gym body and the measure of success by how much the body can lift, push, or pull. What matters in this depicted culture is what lists of exercises one follows, how often, with what intensity, and how this process relates to getting big, hard, and strong. In the process of “hardening our bodies [. . .] in every sensory solicitation, we manage to become dead while still being alive in some very real sense” (Mazis, 2002, p. 54), i.e., we are neglecting what is below the surface, our sensory experience, our “lived body.”

Richard Shusterman (1999) doesn’t take this cultural shaping and mechanistic approach to evaluating and admiring our hard bodies too lightly.

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. (Shusterman, 1999, p. 7)

The human body is surely more than a moving mechanism. We, as sensing, sensitive bodies, can connect to another body beyond the objective gaze of a coffin maker sizing up external shape and dimension. There can be an appreciation for what is felt on the inside, what Catherine David described as the “deepening, which leads toward an unending, unveiling of the latent meaning in each gesture” (David, 1996, p. 42). We can move toward an appreciation of movement fluidity, transformation, and embodied understanding of transcendence, that which Csikszentmihalyi and Csikszentmihalyi (1988) and Stranger (1999) describe as flow, as we begin to understand our intertwining “somaesthetic” presence to one another (Shusterman, 1999).

## Disembodied Training of Trainers

Encouraging personal trainers to appreciate motion beyond its scientific and mechanistic representation is a never-ending battle since the pressure of giving out lists of disembodied information is fuelled by a scientifically-based physical education system and the public demand for wanting the mechanistic answer for getting into “shape.” Deeply connecting to the lived experience of teaching exercise means that the way we, in Western cultures, view and experience the body is ultimately challenged. The body is no longer an empty, mechanistic vessel that can conform to programmatic motions. Each body has his or her story, nuances in alignment, emotions, thoughts, and depth below the overriding surface of body image that Markula (1995) repeatedly draws our attention to in her examination of the “firm but shapely, fit but sexy, strong but thin” postmodern exercising



body. There is something deeper than the constructed image of the body that the instructor in Markula's (1995) study speaks of in saying: "I think stomachs are probably one [problem area], hips, outer thighs, those are the main ones. . . . That's where we have most of our fat cells, that's where we store most of our fat" (p. 435). Focusing on the body in a part-by-part fashion objectifies what can become a deeply rooted transcendent experience. Exercise performed for the *sole* purpose of reshaping body parts cannot become something *soulful*. Questions to be asked when considering the purpose of physical activity or exercise include these: Are we performing mechanistic motions out of an external drive to look a certain way or fulfill the requirements of what constitutes healthful living? Are we allowing ourselves to consider that there can be some form of joy in motion and a primordial connection to pleasurable exertion, or are we expecting our personal trainers to "whip" us into shape?

Aerobic instructors, personal trainers, and participants can be encouraged to explore meaning in the body and, in so doing, to challenge the underlying principles of the fitness training process. The anatomy traditionally taught is based on the knowledge of disintegrated dissected, objectified, dead bodies. If one can match the right name to the indicated body part on, say, the "Pro-Fit"<sup>3</sup> personal training written exam and verbally recite what muscles are being worked in the practical component, for example, that was the extent of the anatomy necessary to know. Course instructors or manuals do not typically teach one to see and intuit beyond the names and identified parts. They don't discuss how somatic awareness can be cultivated, how posture can be refined so there is a deep growth in the way the person comes to carry himself or herself.

Why do educators of personal trainers and instructors uphold knowledge that is based on what Pronger (1995) describes as "the dead body," an entity that is "not seen as a fellow human being, but as an object<sup>4</sup> of study" (p. 437). Why is it that we base our physically educative knowledge on bodies whose owners have "vacated the premises" (p. 438)? Perhaps it is because a mechanistic, objective body can be manipulated into various positions with little regard for what that person might feel and experience if he or she were emotionally and intellectually present. Why have we not adopted the empathic gaze instead of the "surface grazing gaze" that Foucault distinguishes in "the birth of the clinic" (p. 54)? To gaze infers that one follows "the path of the knife" as it "cuts beneath the surface and opens up the corpse" (p. 54) to discover the "opaque mass in which secrets, invisible lesions, and the very mystery of origins lie hidden" (Foucault as cited in Moore, 1996, p. 54). By comparison, Pronger writes of the mystery found in "the inner reaches of a person's body" that are only accessible "under the most intimate, indeed mysteriously erotic, circumstances" (Pronger, 1995, p. 428). But we need not go quite this far in our gazes, glances, and reaches to discern empathically the living, breathing, exercising body of another.

## Immersed Pedagogical Flow

To delve beneath the culturally constructed, gym-hard body requires a shift away from external perception and an appreciation for our intertwined fluidity. Leder (1999) draws out the fluid notion of this connection by articulating that we are more than Merleau-Ponty's primal metaphor of the "flesh," an "exemplar sensible," an

element of the world and an element of the body—we are “the flesh and blood” of the world. Blood circulates below body images, mirrored reflections, video-taped analyses, and mechanistic motions. The depth of connection to which Leder (1999) draws our attention represents intertwining capabilities, interconnections between bodies, exercising bodies, and relationships of reciprocity between bodies.

Delving beneath peak flow experience in exercise pedagogy also requires a departure from Csikszentmihalyi's (2000, 1997a) XY graph, or Cartesian model of flow, which illustrates the relationship between challenge and skill and reinforces the unidirectional progression of flow intensity, i.e., toward peak performance experience. A different model of flow, which draws attention to fluid motion affected by peak landscapes and deep seascapes, indicates a movement trajectory that contrasts with Csikszentmihalyi's model (2000, 1997a). Whereas Csikszentmihalyi proposes a unidirectional, upward progression of flow intensity toward peak experience, we are more inclined to see flow actions and interactions moving with a downward valence. There is a need to distinguish between “peak experience” (Maslow, 1965) and “deep play,” which for Csikszentmihalyi (2000) in his explorations of flow in rock climbing<sup>5</sup> amount to one and the same experience.<sup>6</sup> Just as surfing or teaching fitness is affected by the pitch of flow, so the waves of motion and emotion, the pleasures that turn, on occasion, to anxieties and fears, can also assume a quality of attachment and groundedness. One can discern within the flow of exercise pedagogy a sensitive space, a place of a calm, an ebb and flow, that is closer to the surface of the ocean or the surface of another living breathing body, yet reflective of the ocean floor.

Rebecca looks back to the peak flow experience when she first presented at a fitness conference, how she spent considerable time refining the fluidity and maturation of her movements but did not ask or otherwise influence participants to connect to and feel a sense of maturation in their own physical presences. Although not aware of it at the time, the way she taught was based on an assumption that the participants were vicarious vessels, open to instructor motions on a joyous, superficial level of mimicry. When the workshop ended, she did not wonder to what extent these participants were inclined to move in a more mature or refined way. She did not ask what they learned about their bodily presences and what they will pass on through their bodily mode of understanding to their respective students. The feeling of transcendence, or what Csikszentmihalyi (1988) and Stranger (1999) refer to as feeling “at one” with the environment, was based on the merge of the instructor's bodily experience with the apparently mindless motions of the participants.

Rebecca began to create a space and possibility for interactive flow as she moved away from a position of riding a wave, which we likened to a position of authority on the stage at the front of the room, thereby departing from a place that supported peak performance flow. She refrained from being a purist, like Plato, concerned with “the representation of bad models” (Gebauer & Wulf, 1995, p. 25) and embraced variations on movement beyond the “right way” or “only way” to be performed. The following journal entry reveals how she no longer saw herself providing the mimetic impulse for the class.

I teach a ball class every Tuesday. It begins with 30 minutes of cardio and then ends with 25 minutes of core strength work on the ball and a five-minute stretch. This morning I felt a vibrant sense of life in the class. I broke from the trance-like state of repetition and stopped to see the reaches and lengthening

of the limbs in the forward traveling, skating-like motion. As I walked around and occasionally froze an ideal position, my participants started to change their alignment. Slightly bent, soggy knees began to stretch in the full hip extension so that their flexed ankles reached out in a long, downward trajectory toward the floor. Each reach back with the heel was countered with a forward stretch of the arm and extension of the fingertips. I was no longer at the front but immersed in the room, teaching from the centre as opposed to leading the group from a distant front.

My favourite part of the cardio happened during an impromptu combination of two single leg curls followed by a double. I don't normally do this move because I find that my 10 o'clock ladies typically like to hold onto a simple repeating movement in units of 8 to 16. The smiles and ease in the air inspired me to suggest a turn on the double curl. The complete pattern looked like a bowtie as we turned from one side, through the centre, and to the next, over and over again. I looked up to see the woman in the green shirt who lifted her arms in such a beautiful way that before I knew it, my arms stretched out and felt her grace in the diagonal lift. She danced years ago and, for that moment, I moved with her as if I were part of her corps de ballet, supporting her opening night debut. (Personal Journal, 2002)

Moving in response to the fitness participants, with the intent of refining their postures and positions through freezing certain movements, helped Rebecca change the way the movements are performed. Demonstrations such as these can be performed on a stage at the front of the room, but the degree to which the gesture is identified and embodied varies considerably when there is closer proximity between the teacher and the class. Walking around the room while identifying key positions creates opportunity for closer, more intimate relations. Moving in the same direction, in a side-by-side fashion, opens the door to reciprocal interaction of assuming the diagonal wingspan of the woman in the green shirt, dancing her way through the class.

The class was no longer below Rebecca, but moving in front of, beside, around, and through her. In comparison to the depth of one-on-one personal training relationships, however, this merge was comparable to swimming in the shallow end of a pool. She still didn't delve deep beneath the "gym body" exterior. This group fitness pedagogical encounter was supported by the buoyancy of the moment. It is doubtful, furthermore, that any lasting postural or positional change occurred during the fast-paced, effervescent nature of the interaction. It wasn't a learning environment for a lasting change in posture, gestures, and expression, just a day comparable to swimming in the shallows where there was ample opportunity for taking in and breathing out the other. One can imagine any traces of the interaction soon leaving the participants' bodies as they wiped off the sweat from the frolicking workout.

## Deep Pedagogical Flow

Delving beneath the surface of everyday experience creates opportunity for encounters that are lasting, life changing, and life affirming. Jumping into a pool,

off a dock, or into the ocean can be a quick tingling brush with bodily depth if the intention is to quickly resurface and joyfully jump in again. It can also be the entry point to another place, a deeper dimension of the existing world, and a space and time that lies below the surface and fully surrounds, immerses, and embraces. Ackerman (1999) speaks of the positive sensations that come from emerging from a deep experience, such as feeling “stronger than usual, more adroit, [and] better informed” (p. xiii). The longer one sustains a plunge, the more time one has to become absorbed in everything the water-human merge has to offer. Time below the surface allows the aesthetic, synaesthetic, and kinaesthetic qualities of the moment to “sink in.” It affords an attentiveness to the “vitality affects” of movement (Sheets-Johnstone, 1999, p. 158) and specifically those flowing affects to do with surging, swelling, rising, undulating, and waving as distinct from the bursting and rushing affects of less sustained movement consciousness.

I now reach out beyond my bubble of existence to make a difference in the sea of bodies around me. I no longer teach with the desire to lift my class under my wing and seduce them into feeling the motions of “collective effervescence” or exercise-induced ecstasy. I now feel the inter-lapping sensitivities of making ripples of refinement in the motions of the bodies within and surrounding me. I only started to feel specific responses, comparable to the way synchronized swimmers adjust their stroke, when I deeply immersed myself in one body, not just anybody in the sea of movement around me, but one body—my personal training client’s body. Martha’s squat differed, I found, from Leo’s, Suzie’s, Ben’s, and Frank’s experiences of the squat. Each person has a unique style and pattern to the motion, an individual history associated with the motion, a variable internal desire to repeat the motion, and a personal level of somatic awareness and interest in refining the motion. (Personal Journal, 2003)

In becoming more attuned to the bodily experience of her client’s motions, their individual styles and “fluid affinities” (Cohen, 1993, p. 81), Rebecca also became aware of the experience of teaching and refining movement through her body. There comes the realization that the attentive body of a trainer has a very specific role in encouraging a client’s deepening level of bodily consciousness. The relationship is comparable to the “standing, sitting, walking and riding postures” that interconnect a rider and a horse (Game, 2001, p. 9). Game explains, “all postures need balance, alignment, relaxation; they require being grounded together [with the horse] with slow, deep breathing. Then there is aliveness” (p. 9). Imagine the upright posture of an English-style rider. Although the seated position may seem somewhat stiff, prim, and proper, there is fluidity in the merge between rider and horse. They are, as Game puts it, “in the flow together . . . the relation is what matters here—individuals, human and horse, and species, are forgotten” (p. 4).

Deep flow is cultivated in part by the posture of a personal trainer. It can carry a similar sense of “aliveness” as a rider sitting on a horse in the flow of deeply connecting to the motions of a client unless, of course, the trainer has lost interest and literally becomes bored stiff. Attentive trainers, conversely, feel that something very special is happening in the motions they are observing, feeling, and appreciating. A trainer who is kinaesthetically intertwined with a client can feel a motion from afar as if he or she were performing that motion. Merleau-Ponty (1968) writes, “the

seer is caught up in what he sees, it is still himself he sees: there is a fundamental narcissism of all vision" (p. 139). The trainer imagines that he is becoming the performer so that he is, in a way, embodying the experience of his client. When this kind of experience takes place, there are telltale bodily signs that denote resonating levels of interconnection. Recall William's semi-clenched fists resonating with his client's bench press. John's attentive trainer motivated him to perform another repetition as it provided a solid base to metaphorically push against in order to propel himself deeper into the sensations of the movement. Just as the quiet posture of the rider on a horse may look rigid on the outside, a clenched-fist stance may actually be very much alive and comparable to what Bergson (1975) refers to as the "solidity, so to speak, which even water presents" (pp. 211, 212) and which allows a swimmer to push against it in order to dive just a little deeper.

This ability to identify and feel the internal kinaesthetic and proprioceptive vitality affects of movement—the "surings, fadings, and all such qualitative features of [movement] experience" (Sheets-Johnstone, 1999, p. 158)—contrasts the typical approach to training a body that we note with athletic trainers who "see the body as a moving mechanism, with joints as its components and flesh to cushion the skeleton," and who objectify the body "as though they were already separated from it" (Shusterman, 1999, p. 7). Feeling clients' movements, even to the potential level of cellular breathing (Conrad-Da'Oud, 1988), draws one deeper into what is happening within clients' bodies and what is happening with one's own responses.

But such resonating kinaesthetic responses, no matter how deep and intertwined in terms of bodily identification and appreciation, are not necessarily linked to the pedagogical intention of enhancing and maturing the vitality affects of a motion. Gesturally responding to a client with the intention of refining a motion differs from being drawn into the performance of another with kinaesthetic empathy or awe. The flow that is felt sympathetically and autonomically needs to be modulated by purposeful and somatic movement intention. In other words, the interaction between trainer and client needs to penetrate the motions of the latter and nurture the development of posture, position, and the spatially and temporally fluid vitality affects of the client's movements. Feeling the aesthetic grace of clients' movements draws a trainer deeper into what is happening within clients' bodies and what is happening within the pedagogical response. The client becomes more than an objective entity likened to a lump of clay about to be molded; the trainer feels and guides the client's movement as if her or his body were an extension of the client's flesh. This sensation of folded-over, reciprocal interconnection, articulated in Merleau-Ponty's (1968) "chiasm" of the flesh, strikes a balance between the experiences of the client moving and the trainer moving in response to refine the client's movement where "[p]erception represents a possible path for sensing the other, respecting him as a subject, and it allows me to remain a subject while perceiving the other" (Irigaray, 2001, p. 22).

Irigaray helps extend this phenomenological analysis of interactive flow by leading the way into more intimate foldings where self and other, trainer and client become intertwined. She explains, "[a]s for a woman, she touches herself in and of herself without any need for mediation, and before there is any way to distinguish activity from passivity" (Irigaray, 1999, p. 354). There is no pause in shifting from object to subject. Both hands or foldings of the flesh are able to touch and perceive

simultaneously. Here Irigaray has more of a liberating feminist agenda for rewriting the male approach to exploring, describing, and understanding the psychology of Freud and the intertwining of the flesh in Merleau-Ponty's perception; however, her thoughts and reflections are helpful in understanding the inter-subjective purpose of personal trainer touch. Trainers touch not for the sake of touching and connecting to an object; trainers touch with the intention of moving a client to a deeper level of awareness. Trainers help clients feel responses and activations that typically occur below the level of consciousness.

The following example articulates a particular intertwining of the flesh that is indicative of a deep, interactive pedagogical encounter.

Leo<sup>7</sup> is a client who has developed a strong sense of bodily awareness through intertwining flesh-on-flesh palpation and more figurative pedagogical touches. From a distance, I am sure that an outsider watching my gestural interconnection with Leo would think our relationship was comparable to a puppeteer working with a marionette. Not in the sense that my client moves wherever I put him, as if the puppet has no input, but in the sense of the gestural depth of my hands responding to his movement maturation. My hands pull imaginary strings and make small adjustments in hip level or knee placement by holding the space between Leo and me together. I do not objectify Leo's motion by treating him like a lump of clay that I mold; on the contrary, I attune to his growing level of awareness and make connections inside his body to make small adjustments. He does not passively let me put him in place. He actively responds to my gestures of placement. (Personal Journal, 2003)

Rebecca's hands show signs of what Heidegger called being "ready to hand" (Levin, 1985, pp. 138-140). They respond to another living, breathing, moving body in holding, supporting, molding, shifting, shaping, and so setting in place new patterns of exercise motion.

When I train Leo, I see my hands reaching in an open, palm facing in, finger extended position, compressing the ball of air between them. Leo moves his legs closer together today while balancing the base of his shoulder blades and neck on the ball in an alternating one-arm chest press. Keeping the hips level while a loaded arm moves out to the side requires a strong stable torso. I see the hips start to waver and my gesture of squeezing everything together starts to reach his hips. They are getting tighter and holding their position. My attention is on Leo completely. I squat from behind, reach out, ready to grab a weight if he gets off-balance, and channel squeezing energy through my palms. I don't place my hands in a way that looks like I am expecting to catch a vertical football or embracing a birthing child's head. My hands create a shape that helps Leo feel the coming together of his buttocks, hips and ribs. In other words, my hands are thinking of what is best to support and stabilize Leo's position. (Personal Journal, 2003)

Rebecca's hands are, phenomenologically speaking, engaged in a thinking response to another's movements. Hands, whose "neurologic and biomechanical elements are so prone to spontaneous interaction and reorganization," and hands whose "motivations and efforts . . . are so deeply and widely rooted" (Wilson, 1998,



p. 10) bear thinking in the turn of the palms, the point of the finger tips, and all the appositions and oppositions of which they are capable. According to Heidegger (1999, p. 112), "Every motion of the hand in every one of its works carries itself through the element of thinking; every bearing of the hand bears itself in that element. All the work of the hand is rooted in thinking."

Rebecca's gesture came to her awareness after she first attended to Leo. It was her client-directed attention that created the position and attenuated her sense of bodily awareness. Holding her hands as if waiting to catch a baby's head was new for her. She hadn't noticed the gesture before, although it is a movement that is common to the collective historical actions associated with birth. "Etymology tells us that to 'gesture' means 'to bear,' 'to bring forth,' 'to give birth,' and 'to make appear'" (Levin, 1985, p.125). Her hands bore a response to Leo and a feeling of being held together across space.

What might have happened if she had not held her hands in this way, if she had not focused on Leo's stability and turned her palm, for example, to look at her watch? Would this have taken away from Leo's effort? This is not something with which Rebecca could experiment. Taking her hands away during his set was not something they wanted to do. She was with Leo, feeling the effort of keeping his body together. Her hands were thinking their way into his body. They communicated in such a way that when Leo rose he lifted his hands and mimicked Rebecca's position. He giggled and said "My hands, my hands." Leo's good-humored mimicry reinforced the hands of birthing in his trainer's consciousness.

It wasn't until Leo stood up and purposefully imitated Rebecca that she realized she wasn't only a watcher; she was the "watchee." Earle (1995) experienced a similar reversal in her professional experience as a marine biologist. She stepped outside her role of professional researcher and became aware of what or who was being searched and seen.

From the fish's standpoint, I was a noisy apparition of rushing bubbles, hose, and huge helmet with legs, but I willed myself to be inconspicuous and, stealthily as I could, made my way toward them. Then, something totally unexpected happened. First one, then several, and finally all of the small fish I had been stalking turned and swam in my direction. I was supposed to be the watcher, but found myself the *watchee*, the center of attention for a bunch of curious fish, apparently mesmerized by the strange bubbling being that has just fallen through their watery roof. For twenty blissful minutes, I became one with the river and its residents, bending with the current, blending in—and breathing! (Earle, 1995, pp. 42, 43)

Earle's experience draws attention to the who and what is involved within an interactive merge. As a professional trainer, it is easy to think that one is invisible and that a client's presence and bodily awareness is all that matters. After all, it is the client's motion that one intends to refine and mature, not in a mechanistic skill-based fashion, but in a way that carries Levin's (1985) notion of maturity in the genesis and unfolding of motility. Leo's imitative gesture helped Rebecca see what it was like to be seen by him, which helped her see how she was moved by him in a way that wasn't contrived or shaped out of conscious or "ego-logical motivations" to which "our hands typically belong, that is, to an ego-shaped body" (Levin, 1985, p. 133).



Through deepening awareness of how to respond to clients, one can refine a way of moving that carries the intention of maturing motion. In taking Levin's (1985) advice that "we are beings who need to give thought to Being in the thoughtful-ness of our posture, our stance, our gait and comportment, and in the thoughtful gestures of our hands" (Levin, 1985, p. 92), we need to pay closer attention to the way of standing and responding gesturally in client-trainer interactions with the intention of critically reflecting on and questioning the interactive nuances of the motions used to train, instruct, and teach. Motion-sensitive gestures, such as open handed reaches, embraces, and fluid extensions of responsiveness that put fitness instructors and personal trainers in touch with class and client movements, exude aliveness, trace vitality affects, and stay in contact with the emerging motions of fluidity that are the hallmark of mature movement.

## Interactive Flow Applications

This study of interactive flow in exercise pedagogy provides an example for any physical educator to reflect on the bodily aspects of peak, immersed, and deep flow. The criticism of peak flow relates to the tendency of physical educators to become "wrapped up" with preconceived notions of the exercise curriculum that have them overlook the necessity of moving in response to their students. It seems obvious that a physical educator must move past "peak" flow to be able to delve into the process of maturing meaningful motion. Still, a caveat is worth mentioning: There is a place for peak flow and uplifting experiences that provide a "hook" for first-time or even seasoned educators.

A first step in cultivating pedagogically a deeper bodily perception of interactive flow is, as Sheets-Johnstone (1999) points out, becoming aware of self-movement, which is to say, being aware of what it means to move before we control how we move. She asserts that if we become aware of "our original kinetic spontaneity" we can understand "how movement is the generative source of our primal sense of aliveness and of our primal capacity for sense making" (Sheets-Johnstone, 1999, p. 132). Reflecting back to the motions that cultivate peak flow in group fitness, it becomes apparent that the clapping, pointing, and halting signals keep large groups of students moving together to a collective beat. The cueing gestures don't necessarily reach out and make a lasting difference in the participant's fluid movement experience. In fact, managing gestures are, in themselves, the antithesis of fluid motion, being so sharp and authoritative. It is the lack of motion or fluidity that limits the interpersonal depth of such gestures. They do not reach out with the intention of delving beneath the corporeal surface of the "gym body" as the directional points continue to point to a place that separates a lived experience of "here" from an objective "there." Although there is extension in the direction beyond the span to which instructional fingers reach, these gestures that manage pace and direction do not reach out with the ability of being, in Irigaray's terms, "re-touch[ed]" (Ross, 1998, p. 196). Stiff, extended fingers pointing to the side reach toward a place that is outside the space of the living breathing bodies in the exercise class. They do not carry the sensitivity of inter-corporeal touch that "puts me in touch with bodies" (Ross, 1998, p. 127). Such gestures continue to carry out the one-sided instructional intent of the exercise curriculum and, more often than not, magnify the verbal commands of preconceived or crafted exercise routines.

An immersed sense of interactive pedagogical flow, where the teacher moves in response to the ebbs and flows of student enthusiasm and responsiveness, transforms the predesigned lesson plan into an interactive pedagogical process. Perhaps managing motions within group fitness instruction can be compared to those motions of physical education teachers that lead children through drills, games, and relay races with the desire to keep children busy. Gestures of management unaccompanied by motions of student-directed interaction limit the possibilities of cultivating a deeper sense of body awareness and refining movement quality. Just as it is necessary to step down from the perch on the aerobics stage, so it is required to find a lighter touch in teaching children than the more strident motions of management, if movement awareness and refinement are to occur. Likewise, the vitality affects of a truly deep interactive flow found in the merge between trainer's motions and client's performances can emerge in the shared joy of children's developing movement competencies.

Within this phenomenological structuration of flow consciousness, we believe physical educators, regardless of their domain, can become more intentional in the way they move when they teach. Our initial inquiry into cultivating the teaching body (Lloyd & Smith, 2004; Smith & Lloyd, 2003; Smith, 2004) found that novice teachers of physical education first think of gestures that manage, such as raised hands to gain attention, linear gestures to indicate row formations, and pointed fingers to explain or punctuate a concept. A few perceptive student teachers, however, bring their understandings of the subtle changes in sport and dance performance to a more nuanced sense of the embodiment of teaching. Just as they understand that subtle changes in body position and motion produce significant changes in sport performance, such as the ideal fingertip release in a chest pass, or that finger and arm extension enhance the expressivity of a balletic movement, so too can they understand motions that go beyond the tip of a finger to point out more than the rules or formations of an upcoming activity.

Our intention in working with student teachers is to have them focus on motions that, for the most part, tend to be overlooked because they are not overt actions of control and management. Accordingly, when we ask novice physical educators to become aware of how they move during the in-between times of a lesson, after the class has been organized and directed to a task, it not only challenges their somatic sensibilities, but also their understandings of the physical education curriculum. We encourage student teachers to become aware of how they move in response to their students as the inanimate, written down, lesson plan objectives unfold in dynamic interactive pedagogical experiences that carry the possibility of deep pedagogical flow. Student physical activity thus becomes more than a "show" to watch from the sidelines. The physical education curriculum becomes a living, breathing, interactive encounter. In simple terms, imagine the difference between a physical education teacher assuming the arms akimbo stance and one who relaxes the self-attending, self-asserting, and self-supporting pose and becomes an open-armed co-participant, ready to move in response to the student's unfolding activity. As a child runs or connects with a ball, this agile, ready-to-move, open-armed stance affords the possibility of a mimetic transfer of vitality, energy, enthusiasm, and joy to the teacher's posture. Once teachers engage in such a motile, lived curricular experience, they can enhance what Anderson (2002, p. 35) metaphorically and cognitively refers to as being "touched" by the content in some way to engage in the gestural "dance"

that Mazis (2002) claims, more generally, is our rightful movement relation to the world. It is what we describe as deep, interactive flow.

Ideally, the subtle, fluid motions of interactive flow are best refined through the mode of thoughtful and mutually reflective, pedagogical practice. Refining interactive flow in an isolated fashion without a client or a student is comparable to the act of perfecting a handshake without another hand. Before the shake happens, all one can do is open oneself up to the possibility of receiving an intertwining motion. Just as a hug or an embrace can only be received from an open-armed position, the only thing one can do to prepare for the onset of interactive flow is to refine an open “ready position.” Once the merge between self and other takes place, as in the interlocking clasp of a handshake, interactive presence and mutual participation define the development and course the movement dynamics take.

Such hands of interactive flow penetrate the depths of the body. As Merleau-Ponty (1962, p. 186) stated, “It is through my body that I understand other people just as it is through my body that I perceive ‘things,’” and it is through contact with the motions, fluidities, vibrations, rhythms, and vitality affects of the body that I perceive and understand my interconnections with self, Other, and the world at large (Olson, 2002). It is this movement toward the Other, through gestural synchrony and bodily contact, that establishes the practical means to a refined exercise pedagogy, with the experiential movement from peak, to immersed, to deep flow providing the measure of pedagogical effectiveness.

Effective fitness teaching, exercise pedagogy, clearly involves more than *leading*<sup>8</sup> a student or client through a motion. Deep pedagogical flow fleshes out the motile pedagogical possibilities of open, fluid hands ready to *respond*, *receive*, and *create* lasting bodily transformations in both the student and teacher production of mature, movement forms. Deep interactive flow may not be possible to sustain for prolonged periods of time, but certainly it provides a well-spring of insight for refining and cultivating the movements specific to the disciplines of fitness, games, sports, dance, and gymnastics, and in turn, for sensing and feeling the transcendent possibilities of being rooted in a deeply animated, movement consciousness. A model of interactive flow in exercise pedagogy that picks up where the psychologies of flow leave off, may indeed serve us well in its applicability to a vaster field of movement disciplines and therapies.

## References

- Ackerman, D. (1999). *Deep play*. New York: Vintage Books.
- Anderson, A. (2002). Engaging student learning in physical education. *JOPERD*, 73(7), 35-39.
- Bergson, H. (1975). *Creative evolution*. Westport, CT: Glenwood Press.
- Cataldi, S. (1993). *Emotion, depth, and flesh: A study of sensitive space: Reflections on Merleau-Ponty's philosophy of embodiment*. Albany, NY: State University of New York Press.
- Cohen, B.B. (1993). *Sensing, feeling, and action: The experiential anatomy of body-mind centering*. Northampton, MA: Contact Editions.
- Conrad Da'Oud, E. (1988). *Movement, Rolf Lines, May*. Retrieved October 18, 2004, from <http://www.continuummovement.com/Pages/articles.html>
- Csikszentmihalyi, M. (2000). *Beyond boredom and anxiety. Experiencing flow in work and play*. San Francisco: Jossey-Bass.

- Csikszentmihalyi, M. (1997a). *Finding flow. The psychology of engagement with everyday life*. New York: Basic Books.
- Csikszentmihalyi, M. (1997b). Flow and education. *The NAMTA Journal*, **22**(2), 2-35.
- Csikszentmihalyi, M. (1996). *Creativity: Flow and the psychology of discovery and invention*. New York: Harper Collins.
- Csikszentmihalyi, M., & Csikszentmihalyi, I. (1988). *Optimal experience: Psychological studies of flow in consciousness*. New York: Cambridge University Press.
- David, C. (1996). *The beauty of gesture: The invisible keyboard of piano and T'ai Chi*. Berkeley, CA: North Atlantic Books.
- Earle, S.E. (1995) *Sea change: A message of the oceans*. New York: G.P. Putnam's Sons.
- Feldenkrais, M. (1980) *Mind and body. Your body works*. Copyrighted newsletter by Moshe Feldenkrais.
- Game, A. (2001). Riding: Embodying the centaur. *Body & Society*, **7**(4), 1-12.
- Gebauer, G. & Wulf, C. (1995). *Mimesis: Culture-art-society*. (D. Reneau, Trans.). Berkeley: University of California Press.
- Heidegger, M. (1999). Hands. In D. Welton (Ed.), *The body* (pp. 111-115). Malden, MA: Blackwell.
- Heywood, L. (1998). *Bodymakers: A cultural anatomy of women's body building*. New Brunswick, NJ: Rutgers University Press.
- Irigaray, L. (2001). *To be two*. New York: Routledge.
- Irigaray, L. (1999). Female desire. In D. Welton (Ed.), *The body* (pp. 353-360). Malden, MA: Blackwell.
- Jackson, S.A., & Csikszentmihalyi, M. (1999). *Flow in sports. The key to optimal experiences and performances*. Champaign, IL: Human Kinetics.
- Leder, D. (1999). Flesh and Blood. In D. Welton (Ed.), *The body* (pp. 200-210). Malden, MA: Blackwell.
- Levin, D.M. (1985). *The body's recollection of being*. London: Routledge.
- Lloyd, R.J. (2004). *Interactive flow in exercise pedagogy*. Unpublished doctoral dissertation, Simon Fraser University.
- Lloyd, R.J. & Smith, S.J. (2004). To move and be moved: The cultivation of motion-sensitive pedagogy. *Prospero: A Journal of New Thinking in Philosophy for Education*, **10**(3), 4-11.
- Mandigo, J. & Thompson, L. (1998). Go with their flow: How flow theory can help practitioners to intrinsically motivate children to be physically active. *Physical Educator*, **55**(3), 145-159.
- Markula, P. (1995). Firm but shapely, fit but sexy, strong but thin: The postmodern aerobizing female bodies. *Sociology of Sport Journal*, **12**, 424-453.
- Maslow, A. (1965). Humanistic science and transcendent experience. *Journal of Humanistic Psychology*, **5**, 219-227.
- Mazis, G.A. (2002). *Earthbodies: Rediscovering our planetary senses*. Albany: State University of New York Press.
- Merleau-Ponty, M. (1962). *Phenomenology of perception*. (C. Smith, Trans.). London: Routledge & Kegan Paul.
- Merleau-Ponty, M. (1968). *The visible and the invisible*. (A. Lingis, Trans.). Evanston, IL: Northwestern University Press.
- Merriam-Webster OnLine. Retrieved May 12, 2002, June, 14, 2003, and January, 20, 2004 from <http://www.merriam-webster.com>.
- Moore, S. (1996). *God's gym: Divine male bodies of the Bible*. New York: Routledge.
- Murphy, M., & White, R.A. (1995). *In the zone: Transcendent experience in sports*. New York: Penguin.
- Olson, A. (2002). *Body and earth: An experiential guide*. Lebanon, NH: University Press of New England.
- Online Etymology Dictionary. Retrieved April 1, 2004 from <http://www.etymonline.com/p3etym.htm>

- Pronger, B. (1995). Rendering the body: The implicit lessons of gross anatomy. *Quest*, **47**, 427-446.
- Ross, S.D. (1998). *The gift of touch, embodying the good*. Albany: State University of New York Press.
- Sheets-Johnstone, M. (1999). *The primacy of movement*. Philadelphia: John Benjamins.
- Shusterman, R. (1999). Somaesthetics: A disciplinary proposal. *Journal of Aesthetics and Art Criticism*. Retrieved October 18, 2004, from <http://www.temple.edu/aesthetics/somaesthetics.html>.
- Skeat, W. (1961). *Concise etymological dictionary of the English language*. Oxford, UK: Oxford University Press.
- Smith, S.J. (2004). *The bearing of inquiry in teacher education: The S.F.U. experience*. Burnaby: Faculty of Education.
- Smith, S.J. and Lloyd, R.J. (2003, February). *Cultivating the teaching body*. Paper presented at the Western Canadian Association of Student Teaching (WestCAST) conference, University of Manitoba.
- Stranger, M. (1999). The aesthetics of risk: A study of surfing. *International Review for the Sociology of Sport*, **34**, 265-276.
- van Manen, M. (1997). *Researching lived experience: Human science for an action sensitive pedagogy*. London, Ont.: The Althouse Press.
- Wilson, F.R. (1998). *The Hand: How its uses shapes the brain, language, and human culture*. New York: Pantheon Books.

## End Notes

<sup>1</sup>According to Merriam-Webster's (2002) online dictionary, "interactive" means being "mutually or reciprocally active." The prefix "inter" specifically refers to the nature of being mutual or reciprocal. "Active" has been defined as action or physical movement over contemplation or speculation.

<sup>2</sup>The Experience Sampling Method (ESM), which Csikszentmihalyi began to explore in the mid-seventies, was designed to "capture the experience as it occurred, when it was fresh in the mind" (Csikszentmihalyi, 2000, p.xix; *my italics*). At random intervals during the day, participants were paged with an electronic beeper and were asked to fill out a self-report booklet. The questions ranged from Where were you? What you were doing? How do you feel on a seven-point scale where 1 is sad and 7 is happy?

<sup>3</sup>Note that "Pro-Fit" is not the actual name of the certifying organization. It was modified to ensure privacy.

<sup>4</sup>"Now when I see a lung, for example, I concentrate on its structure. . . . I don't picture its being in someone who was once living, breathing, and talking (Fox, 1988, p. 63, as cited in Pronger, 1995, p. 437).

<sup>5</sup>In Csikszentmihalyi's (2000) chapter, entitled "Deep Play and the Flow Experience in Rocking Climbing," he interchangeably used the terms "peak experience," which he took from Abraham Maslow, and "deep play," which was inspired from the eighteenth century British philosopher, Jeremy Bentham.

<sup>6</sup>Csikszentmihalyi is not alone. Michael Murphy and Rhea White (1995) also misrepresent the term "peak experience" when they describe the transcendent experience of a diver, a seemingly "deep" encounter, where "in just 30 feet of water . . . [he] felt absolutely at one with the ocean [. . .] he could hear the grains of sand on the bottom and [. . .] his life has changed ever since" (pp. 35-36).

<sup>7</sup>Note that Leo is not the real name of this client and permission was received from the client as well as the university ethics board for the doctoral research (Lloyd, 2004) from which this excerpt has been taken.

<sup>8</sup>The etymological origin of pedagogy is derived from the Greek *paidagogos*, from *pais* (gen. *paidos*) "child" + *agogos* "leader," from *agein* "to lead" and the "Latin *paedagogus*, slave who escorted children to school" (Online Etymology Dictionary, 2004).