Enactive Teaching in Higher Education: Transforming Academic Participation and Identity Through Embodied Learning

by

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Abstract

Enactive Teaching in Higher Education is a narrative exploration of embodied teaching in the university classroom based on the enactive view of cognition described by Francisco J. Varela, Evan Thompson, and Eleanor Rosch. On the surface, their philosophy is a heavily theoretical critique of epistemological dualism. More profoundly, it is an imaginative proposition for reinventing ourselves as human beings by acknowledging the participatory nature of perception, how reflection-as-experience implicates us in relationships that determine our most fundamental senses of identity.

Enactive philosophy is pervasively ecological. It asks us to consider not only how body, mind, and spirit are interconnected, but how subjective senses of self are disrupted and transformed by interactions with other people. It is a view that extends Hannah Arendt's embrace of human togetherness. For this reason, enactive philosophy raises questions about what it means to be and become a dynamic, well-balanced educational participant.

My curiosity is how enactive philosophy informs personal and collective senses of participation and identity in adult and higher education specifically. I focus this interest around two teaching-related questions: (a) What do embodied views of cognition reveal about adult learning and self-development? and (b) How do adults' embodied perceptions of themselves and others support holistic understandings of teaching? My inquiry draws on three data sources: (a) a critical literature analysis of embodied pedagogy, (b) a field study that documents perceptions of embodied teaching and learning in a graduate seminar, and (c) reflections on my journey as an elementary teacher preparing to become a university instructor.
I present my findings thematically using narratives to bridge theory and practice. The themes offer a framework for enactive teaching. My senses of narrative, like my senses of teaching, are guided by enactive philosophy. The significance of this view is to trouble instrumental and prescriptive views of education while accentuating a connection between embodied knowing and pedagogies of possibility.
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Prologue

*Being, becoming, and belonging* constitute a different neighborhood from dissent. Here one finds homes for growing, changing, perfecting, enlarging, renewing. The emotional climate is also different; it is bracing, but not charged and corrosive; it provides oxygen in which we can breathe, and hope and joy; not the acrid fumes of anger, confrontation, alienation, and despair. (Kidd, 1973, p. 5)

A few weeks ago after some searching, I located a booklet entitled *Relentless Verity: Education for Being-Becoming-Belonging* (Kidd, 1973). It is a work based on an address given by James Roby Kidd upon receiving an award from Syracuse University for distinguished leadership in adult education. *Relentless verity* is a borrowed phrase. It was originally used to describe the impact of military photographs during World War I (Kidd, p. 23). The images spoke their own truths, conveying the immediacy of life-and-death events from the war front to people back home.

To the extent that learning shapes human development, it is also about life and death, Kidd (1973, p. 23) maintains. The relentless verity of education lies in moral aims and purposes that enable it to flourish in the face of peril as well as promise. What this means is the possibility to reclaim connections with others, strive for something akin to self-actualization and ultimately become better human beings. Kidd's ideas reflect an ambitious and holistic view of adult education.
It is the breadth of his vision that caught my eye. I stumbled across his text while reading a pre-conference call for papers by André Grace (2004). I contacted André who provided additional information, allowing me to track Kidd's (1973) address to a filing cabinet in the Vancouver Public Library.

Like Kidd's (1973) text, my writing is born out of a need to understand myself as a teacher and human being. I have taught public-school children for 21 years and, for the past 10 of those, maintained an interest in instructing adults. The dissertation is a critical, reflective analysis of my development as a teacher and my desire to become a more active classroom citizen; to be a whole person in less-than-whole learning environments with conflicting values and priorities.

Mine is not a vision extracted from humanistic psychology but one that has evolved out of discourses on cognition introduced in a graduate education seminar. As a learner, I began questioning relationships with others, and myself applying them to my emerging senses of identity in higher education. The relentless verity of my dissertation lies in connections that nurtured and sustained my being, becoming, and belonging in the company of others.

A dissertation is a curious amalgam of passion, reflection, and experience. There were many relationships, planned and unexpected, that entered into my writing and engaged different parts of my being. They included spiritual, intellectual, emotional, and political forces. Although many elements and relationships in my research are still unfolding, I have started to "work out the significance of the stories [I] am living" (Waterhouse, 2000, p. 23), a goal that brings the possibility of self-awareness and transformation.

Stories invite not one, but many visits, many reflections and enactments before they become part of our being. I have carried the dissertation with me for many years, pondering the significance of its ideas while travelling from one place to another. "The ruminant does not give up the world
in order to think about it. On the hoof it stores the world that it consumes in multiple stomachs until it has found a place of safety to bring back what has been swallowed in haste for a good chew" (Grumet, 1988a, p. 132).

I hope that your reading of the dissertation will offer a good chew. I invite you to reconsider aims and purposes that enliven your senses of education. Allow your body, mind, and spirit to be present as you embrace possibilities for being, becoming, and belonging. Find yourself in others and you will discover the relentless verity of teaching.
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Dedication

For teachers whose imaginations are changing the shape of things to come.
INTRODUCTION

Bringing Forth New Worlds
In Higher Education
Introduction:

Bringing Forth New Worlds in Higher Education

In our busy world of education, we are surrounded by layers of voices, some loud, some shrill, that claim to know what teaching is. Awed, perhaps, by the cacophony of voices, certain voices became silent and, hesitating to reveal themselves, conceal themselves. Let us beckon these voices to speak to us, particularly the silent ones, so that we may awaken to the truer sense of teaching that likely stirs within each of us. (Aoki, 1992a, pp. 17-18)

The dissertation you are reading is a narrative inquiry of enactive teaching and self-development in higher education based on an embodied view of cognition. The term *enactive* as used here derives from the neurobiological view of cognition proposed by Chilean scientists Humberto Maturana and his student at the time, Francisco Varela. They described their enactive view "not as a representation of the world 'out there,' but rather as an ongoing bringing forth of a world through the process of living itself" (Maturana & Varela, 1992, p. 11). What that suggested philosophically was spelled out in a later publication, *The Embodied Mind: Cognitive Science and Human Experience*, co-authored by Varela, Thompson, and Rosch (1991). It is this second publication that engages my curiosity and serves as a primary reference for the dissertation.

My fascination with this text centres on its engaging, often perplexing view of the bodymind connection. The term *embodiment*, as used by Varela, Thompson, and Rosch (1991), "encompasses both the body as a lived, experiential structure and the body as the context or milieu of cognitive mechanisms" (p. xvi). Their perspective is based on philosophical and
scientific schools of cognition and complexity. My interest is in applying the philosophical
dimensions of Varela, Thompson, and Rosch's inquiry to critically and creatively reconceptualize
academic participation and identity. Haruki (1998), referring to traditions of inquiry in the
Orient, notes that when Easterners "pondered the human mind, the body was also included in
their thinking, and likewise, when the body was the object of consideration, the relationship to
the mind was also brought to bear" (p. 15). This understanding of the body, however, is one that
has been absent from discourses of effective teaching and instruction in higher education. Its
absence raises questions about personal and collective senses of self and other in Western
conceptions of classroom participation. It also draws attention to what Haruki characterizes as a
history of analytic and reductionistic thinking.

The goal of my research is to articulate an enactive view of higher education instruction in order
to critically reassess claims for and against embodiment as an orientation for adult learning and
self-reflection. It is a goal that is driven in part by a belief that teaching as a focus of
phenomenological inquiry cannot and should not be separated from the personhood of the
teacher. What teachers think of their bodies and how they engage their understandings have vital
implications for planning, implementing, and evaluating classroom curriculum and instruction.
The graduate education classroom offers exciting opportunities to explore this connection. This
is an important context for my writing.

There are two key questions that guide my thinking: (a) What do embodied views of cognition
reveal about adult learning and self-development? and (b) How do adults' embodied perceptions
of themselves and others support holistic understandings of teaching? Both questions are
interrelated. The first investigates the importance of the bodymind connection for adult learners.
The second acknowledges that changes in understandings around learning will necessarily shift
conceptions of teaching. My research seeks to determine what higher educators need to do as
well as who they might need to be to reclaim their felt senses of embodiment as teachers,
learners, and scholars. I adopt this frame of reference to challenge instrumental views of
cognition and argue for a fluid and relational understanding of self. I characterize this
understanding as holistic to emphasize the interplay between the subject and object of
perception, an enactive view of the bodymind connection.

There are three major data sources that inform this research study: (a) a critical literature analysis
of embodied cognition highlighting enactive philosophy; (b) a qualitative field project that
examines perceptions of embodied teaching and learning in a graduate education course; and (c)
reflections on my own teaching and learning based on personal memories of classroom
participation, my participation in an enactive teacher education course, and other oral and written
texts that have shaped my development as an enactive educator.

In order to understand the significance of my study, it is important to identify forces that have
contextualized my personal and professional experience as an educational participant. I begin by
situating my inquiry as part of a larger movement towards embodied views of cognition in
cognitive science and education before sharing autobiographical events that have influenced my
development.

**The Need To Rethink Classroom Cognition**

References to embodied cognition in my study signal an important alliance between cognitive
science and higher education. One of the most telling indicators of that connection, historically,
has been the commanding attention given to psychological conceptions of adult learning and
instruction. This is underscored by the sway of constructivist (Duffy & Jonassen, 1992) and
developmental (Arseneau & Rodenburg, 1998), socially situated (Lave & Wenger, 1991;
Salomon, 1993/1997), experiential (Kolb, 1984), and transformative (Mezirow, 1991; Mezirow
& Associates, 1990) perspectives. Although informed by different conceptual frameworks, these
Theories have all painted convincing pictures about selves that are possible to be and become in classrooms.

The proliferation of psychological theory in education has deflected attention away from other cognitive sciences as key sources of information into the bodymind connection. Varela, Thompson, and Rosch (1991) stress that "cognitive science is not a monolithic field," (p. 6), although some of its voices have been privileged historically. Their conceptual map of cognitive science includes cognitive psychology, neuroscience, linguistics, philosophy, and artificial intelligence (Varela et al., p. 7). The fact that psychology has often dominated classroom discourse has undermined holistic research on adult learning and teaching. If the cognitive sciences are to remain a robust frame of reference for education the term cognition itself must be systematically re-evaluated. This includes "reconstructing the psychological subject" (Bayer & Shotter, 1998) and consulting other disciplines to reconceptualize the bodymind connection.

This need is addressed in part by embodied cognitive science, a focus of inquiry within cognitive science. It attempts "to grant the body a central role in shaping the mind. Proponents of embodied cognition take as their theoretical starting point not a mind working on abstract problems, but a body that requires a mind to make it function" (M. Wilson, 2002, p. 625). This belief reflects a commitment to holistic thinking and ways of being based on integrative capabilities of the mind to shape human lives and identities.

Historically, the turn towards embodied cognitive science followed the cognitive revolution. References to embodiment were supported by increasingly holistic and ecophilosophical worldviews that emerged during the mid-1980s across new sciences of cognition and complexity. The latter included biology, physics, mathematics, artificial intelligence, and other areas of scientific inquiry. Influenced by the writings of C.P. Snow, Brockman (1995) uses the term third culture to identify the importance of the new sciences: "The third culture consists of
those scientists and other thinkers . . . who, through their work and expository writing, are taking
the place of the traditional intellectual in rendering visible the deeper meanings of our lives,
redefining who and what we are" (Brockman, p. 17). Brockman presents a thoughtful collection
of interviews with new scientists, including Francisco Varela. The notion of a third culture
challenges traditional views of cognitive realism and underscores a need for participatory models
of the bodymind connection.

Many of these models are based on views of self-organizing systems. These systems include the
planetary system as well as the human body and social systems. The notion of self-organization
is one that physicist Fritjof Capra (1996, chap. 7) relates to a new synthesis of life based on the
co-emergence of a system's form and structure. Waldrop (1992/1993) argues that self-organizing
systems are adaptive as well as complex: "They actively try to turn whatever happens to their
advantage. Thus, the human brain constantly organizes and reorganizes its billions of neural
connections so as to learn from experience (sometimes, anyway)" (p. 11). This has been vividly
demonstrated over the last few years by scientists such as Antonio Damasio (1994) and Candace
Pert (2001) who have researched the neurobiological basis of language and emotion. The
complexity of self-organization, Waldrop maintains, means that systems are in a constant flux
between chaos and stability. He characterizes this balance point as "the edge of chaos" (p. 12).

Attention to dynamic systems theory raises questions about university classrooms and other
instructional contexts as self-organizing systems. How do faculty and students relationships
organize self-development? How do chaos and complexity shape academic participation?

What is important to note here is how perspectives of self-organization have refocused attention
among scientists and educators on holistic views of the bodymind connection. In 1988 Waldrop
(1988a; 1988b) published two articles about a new computer program, Soar, based on the search
for a unified theory of cognition. Allen Newell, the program's developer, is quoted as saying,
"Even if the mind has parts, modules, components, or whatever, they all mesh together to produce behavior... It is one mind that minds them all" (Waldrop, 1988b, p. 27). Four years later Waldrop (1992/1993) characterized the search for an integrated view of cognition among artificial intelligence researchers and others as "Visions of the Whole" (pp. 9-13).

Enactive philosophy was one of these visions. Varela, Thompson, and Rosch's (1991) collaboration extends the scientific basis of enactive theory to an interdisciplinary exploration of embodied cognition. Their scholarship draws from Eastern as well as Western schools of thought. The result is a thought-provoking text that blends continental phenomenology, notably the work of French philosopher Maurice Merleau-Ponty, with Madhyamika Buddhism, psychoanalysis, and other cognitive sciences.

Descriptions of embodied cognition in this context are strategically positioned as a case against cognitive realism. The terms cognitive realism or, alternatively, cognitivism and representationism, reflect brain-based views of the mind as an information processor "explained by the hypothesis that a system acts on the basis of internal representations" (Varela et al., 1991, p. 134). The enactive view serves more broadly as a critique of Cartesian rationality and other intellectual traditions that have failed to address the participatory nature of knowing. Varela, Thompson, and Rosch's (1991) concern extends beyond common-sense notions of an inseparable bodymind. It speaks, rather, to a quality of complicity, that is, how the entanglement of one's actions and thoughts constitute ways of being in the world. Enactive philosophy attempts to integrate the neurobiological as well as experiential basis of cognition.

Not all cognitive scientists accept the embodied nature of cognition. O'Loughlin (1998) notes that "cognitive scientists, philosophers and others traditionally have been uncomfortable with bodiliness" (p. 290). Her observation points to a discomfort identifying mental intelligence with carnal sensuality.
Similar uneasiness is evident in education where the bodymind connection has been a troubling topic for teacher educators, faculty developers, and other educational participants:

It is anybody's guess as to how many of us, students, teachers, and educational researchers, walk around in schools and universities with feelings of bodily and emotional stress because of the disembodiment involved in how we are taught to teach, to learn, and to do research. Probably there are hordes of us. As we become adults, we learn how to repress somatic awareness, and many of us can no longer tell when our stomachs know better than our minds, when our bodies feel completely wrong, or why we develop headaches. (Heshusius & Ballard, 1996, p. 3)

This devaluation of somatic awareness is characteristic of teacher education programs in general, according to Davis and Sumara (1997). They argue that the binary logic of body versus mind reinforces representational views of knowledge and translates into unquestioned classroom rituals and routines for those learning to teach.

It is increasingly fashionable among educators and scientists to attribute reductionistic views of the self to philosophies of epistemological dualism. Crossley (1995), a sociologist, observes that "the chief obstacle to the formation of a carnal sociology of the body is the Cartesian ontology which many writers, from quite distinct perspectives, have identified as being inherent in and even foundational to much sociology" (p. 44). Heshusius and Ballard (1996) posit the influence of Cartesian ways of thinking in "virtually all niches of our lives" (p. 5). Arguments of this type are widespread.
Given this reasoning, it is interesting to note John Dewey's (1938/1997) analysis of epistemological dualism more than 60 years ago. He connected a persistent tendency of people to think in Either/Or terms with nature versus nurture debates about education. In the time that has lapsed since Dewey addressed this issue, discourses of instructional efficiency, productivity, and accountability (Aoki, 1992a, pp. 18-20) have intensified, reinforcing a rift between subjective and objective views of knowledge in education.

References to embodied cognition seek to recapture the underlying wholeness of the human condition by identifying sensory-motor, spiritual, emotional and other forms of intelligence as explicit frames of reference for teaching and learning. "Knowing is not always dispassionate, and it is always personal. Its forms are rooted in feeling as well as in the cool light of reason" (Eisner, 1996, p. ix).

Retheorizing the bodymind connection in education and the cognitive sciences has proven to be challenging. Arguments against Cartesian thinking do not automatically translate into conceptions of embodied knowing (Heshusius & Ballard, 1996, p. 9). Adult educators hold multiple views of embodied and somatic knowing (Kerka, 2002). This diversity is matched by discrepancies across the cognitive sciences where one finds "loosely affiliated philosophies, explanatory frameworks and design methodologies that strive to redress a perceived neglect of the body" (Chrisley & Ziemke, 2002, p. 1102). Margaret Wilson (2002, pp. 625-626) argues that conflicting knowledge claims must be sorted out in order for the term embodied cognition to retain meaning. A similar argument can be made for adult teaching and learning. Discourses of embodiment must be clearly articulated in order to serve educational purposes, processes, and outcomes.
Embodied Cognition as A Framework for Academic Participation and Identity

I am drawn to enactive philosophy because I believe that it can dramatically transform teachers' senses of self, inviting holistic views of adult and higher education as a space of possibility. I use Varela, Thompson, and Rosch (1991) as a primary reference because of the implications of their work for rethinking and re-enacting classroom participation and identity. Enactive knowing requires more than rational-analytic knowledge. As human beings, we are able to know and engage our environments because our bodies through their participation in the world serve as active frames of reference for perceptual awareness. Ultimately, enactive philosophy is about how well teachers know and relate to their senses of self and other.

Enactive philosophy also highlights two contrasting and sometimes conflicting roles for higher educators, that of co-learner and facilitator. It is not unusual for an instructor to maintain both roles. What distinguish enactive teaching are commitments that identify it as an instructional perspective. "When we speak of a perspective on teaching, we are speaking of... an interrelated set of beliefs and intentions which give meaning and justification for our actions" (Pratt, 1998, p. 33). Enactive teaching as a perspective is informed by specific actions, intentions, and beliefs related to the importance of the bodymind connection as an animating frame of reference for academic identity and participation. Descriptions of enactive teachers as learners and facilitators are not only references to what they do, they are references to how they perceive themselves and others relationally in and out of classrooms.

An enactive view of teaching has troubled my own unfolding senses of subjectivity and intersubjectivity. During graduate studies I have continued working part-time as an elementary school teacher, my role of 21 years, while preparing for an instructional role in higher education. I have found myself constantly questioning and re-evaluating my beliefs about adult teaching and learning, contrasting them with and relating them to my experience with schoolchildren.
During this period I have also had opportunities to teach two groups of adult education undergraduates. Although my instruction was not directly related to enactive philosophy, it did allow me to gain valuable experience working with adults.

Applying enactive philosophy to my emerging role as a higher educator is a personal as well as professional need to understand and reflect on my emerging senses of self. For every breath and voice of possibility that I associate with teaching, I am struck by a great and sometimes dreadful sense of impossibility. How can I possibly listen to never-ending streams of voices and honour their presence/absence through embodied ways of being? How can I welcome voices I may or may not understand, voices that speak in many languages, discourses, and silences? Enactive philosophy has given me a language, a conceptual framework, and a set of principles to investigate these questions more systematically.

In the process of this self-inquiry, enactive philosophy keeps rubbing at my senses of good teaching. It reminds me that what I know and believe about my role, position, and authority need to be constantly interrupted to engage education as a space of possibility. Pratt, Arseneau, and Collins (2001) contend that perspectives of teaching "are neither good nor bad. They are simply philosophical orientations to knowledge, learning, and the role and responsibility of being an educator" (p. 14). Yet actions, intentions, and beliefs are compelling frames of reference for self-development. My interactions with enactive philosophy have compelled me to rethink what matters in classrooms and how I might facilitate holistic ways of reading the world with learners.

**Five Stages in My Self-Development**

These interactions have been contextualized by personal experience. In retrospect, there are five stages that preceded and succeeded my initial encounters with enactive philosophy that have shaped my senses of classroom participation and identity. I will analyze these stages with three
goals in mind. First, each stage explains why I gravitated towards enactive philosophy and how my senses of that philosophy shifted over time. Second, the stages connect my self-development to my instructional goals and aspirations. Third, the stages contextualize a discussion of the dissertation's organization that follows.

**Stage 1: Knowing teaching inside out.**

The abstract intelligence . . . is a sheer delight when it's in service to the earthly dance, but reckless and stiflingly mean when it strives to certify its dominion, terrified of noticing that it's enmeshed in the world it seeks to control. (Abram. In Abram & Jardine, 2001, p. 320)

I returned to graduate studies mid-way through my teaching career to pursue a masters degree in adult education. At that time my view of classroom participation was informed by two qualitatively different sets of beliefs about teaching and my identity as teacher. These beliefs corresponded to views of curriculum-as-plan and curriculum-as-lived. Aoki and Shamsher (1991) argue, "Within this two-folded curriculum framework, teaching becomes an in-dwelling in the midst of differently textured tensionalities of the curriculum-as-plan and of the lived curriculum" (p. 1).

After 11 years of teaching I still experienced great angst incorporating both frames of reference into my day-to-day teaching. Both reflected different readings of my instructional role. I associated curriculum-as-plan with a deep sense of responsibility to be the most efficient and well-organized teacher that I could be in order to accurately and effectively transmit a stable body of knowledge to my learners. My reading of curriculum-as-lived reflected a desire to
honour personal ways of being in class, to share my stories of experience and identity with others. I did not know how to integrate both views into my teaching.

For years my loyalty to curriculum-as-plan dominated my conceptions of teaching. This frame functioned as an unquestioned mythology that determined my representations of self and other, body and mind, right and wrong, teaching and not-teaching. It literally constituted a series of foundational actions, intentions, and beliefs about my place in the world. "Foundationalism is the view that there is some (relatively) small set of basic truths which has some special role to play in explaining things" (Sanders, 1999, p. 123). Sanders observes that the truths are metaphysical when used to explain the nature of the universe, or epistemological, when used to explain the nature of knowing (p. 123). Both were enmeshed in my teaching. They operated like metanarratives, circumscribing my views of classroom participation and identity.

In hindsight, my sense of teaching as a prescriptive activity did not develop in a vacuum. It was "the result of years of being a learner, in the home, at school, in the community, on sports teams, and in a thousand other moments responding to someone acting as teacher" (Pratt, 1998, p. 33). This, Pratt argues, is how most adult and higher educators receive their perspectives of teaching. Over the last decade I have come to appreciate the weight of his words. As an adult I have been drawn to childhood representations that I once used to impose meaning on my life world. These authorities made it difficult for me as an adult to value my experience in teaching.

Through critical reflection and analysis I have started seeing connections between how I learned and came into teaching. "The child in me becomes my embodied pedagogue. As I recall the courage I had to face myself and to transform myself, I know that I can continue to face myself, over and over again" (Irwin, 1999-2000, p. 85). I also experience a sense of resonance with my childhood vicariously when teaching intermediate students. A former elementary principal, reflecting on the importance of Christmas concerts in school, said that, as adults, we create the
narratives our children will remember one day.\footnote{Thank you to educator Alan Sakai for sharing this view of narrative with me.} As adults we also return to childhood to ponder connections between teaching and learning.

From as early as I can remember I believed that my capacity to know and therefore to act and learn consisted of representing information passed on to me by others. This belief was reinforced by instrumental and prescriptive views of knowledge at home, in Sunday school, in private piano lessons, and in school.

I wish I could tell you that my views of cognitive realism disappeared after I learned how to teach in the public school system. They did not. Rather than challenging my beliefs, my teacher training reinforced a deeply entrenched system of abstract representations based on a Paint-by-Number view of knowing. When I entered my teacher education program I knew that I would be expected to master certain competencies and standards of practice. What I did not expect were reductionistic and decontextualized views of knowledge that permeated my course work and instructional experience. The more I advanced through my studies the more regulated these views seemed to become. Although my instructors undoubtedly valued multiple teaching perspectives, I believed that my primary responsibility was to take in new knowledge, decode it, and pass it on to students. No one invited me to trust my passion and intuition as orientations for teaching.

This view of knowing had also permeated my childhood learning. Today in my desk at home is a symbol of this learning. It is a glossy, yellow ruler that I won at Sunday school for memorizing the books of the Bible in complete chronological order. On one side of the ruler the verse "Study to show thyself approved unto God" (II Tim. 2:15) appears; on the other, a complete list of
Scriptures divided into rows. The ruler has been with me 35 years, its lines faithfully straight and intact.

Yet despite their preservation, something has changed. My beliefs and practices are no longer what they were as a young child. Both ends of the ruler, wiped and worn by human hands, have also changed. They have shortened. Lines marked on wood no longer represent the world they were designed to measure. Not really. Twelve inches is no longer twelve inches. When I contemplate the ruler today I am also drawn to the bright wash of yellow that adds relief to verses printed in black.

Silence. (Reflective pause)

I stop to feel gaps in space and time that separate my body and the body of the ruler from our bodies long ago and wonder if the ruler has broken me from my past?

Aoki (1992a) uses the analogy of a pencil to speak about breaking as an orientation to the full presence of teaching: "When we are writing and the pencil breaks, suddenly the content of our writing disappears and goes into hiding, and the pencil that we really did not see before comes out of hiding to reveal itself to us" (p. 20). Perhaps the shortening of a ruler, like the breaking of a pencil, has revealed the fullness of my body beyond letters of laws and lines on a ruler.

Whenever I touch the ruler I am reminded of what was, what is, and what might be, cycles of lack and desire, life and death, distractibility and attention, that encircle my being. In the body of the ruler I read and am read by my body through spaces of absence and presence. Heartened by these connections, I ponder how faculty and students might learn to read themselves as whole beings in less-than-whole learning environments.
**Stage 2: A crack in the foundation.**

Long ago we turned off the voice of the body. The body obediently went silent as we agreed not to notice our emotional or feeling life. Although our bodies continue to hold in silence what was stuffed, there comes a time when the body finally needs to speak out, in its own voice, to catch our attention. (Thanas, 1997, p. 43)

Before I entered graduate school a crack had started tearing my view of teaching as a stable body of knowledge that could be transferred seamlessly from one mind to another as a matter of prescription. This perspective was challenged one year when a new student was put in my elementary class. He was easily distracted. At the time I believed that he required a special program to modify his behaviour. When I communicated this feeling with my administrator she shared her understandings of the student as a person. This left me frustrated because I wanted a prescriptive intervention.

Several years later after changing schools I ran into the same administrator at a workshop. Our conversation turned to questioning what we do as educators and why. My colleague spoke about living as an ongoing process of self-inquiry. I responded that there are some things in life we don't question. "Give me an example," she said.

"Well, like what I eat for breakfast or how I drive to work."

"Don't you?" she replied.

This rejoinder jolted my sense of complacency. Like enactive educator Breen (2002), I was shocked "to discover that not everyone saw even the simple things in life the way that I did, and
even more so when I discovered that others did not agree that I had found the best way to do a task" (p. 2). Over time I began to recognize that I did need to question my lifestyle choices on an ongoing basis: what and how I eat, how I move from one place in the world to another, and how I bring my fantasies, desires, and enigmas into teaching. Not until several years later did I identify my administrator's bodily awareness with a non-instrumental view of education.

During the period before graduate school I was also coming to terms with my senses of self on other levels, including my sexuality. As a gay male I had rarely connected my sexual orientation with my profession or been encouraged to make this connection. Although I had been in a same-sex relationship throughout my teacher education program, neither my sensuality nor spirituality had been acknowledged as embodied ways of being. To the extent that my body had been recognized it had been its capacity to sort, retrieve, and compute information and correct assignments that had been valued most highly.

According to Davis and Sumara (1997), knowledge “tends to be discussed as if it were an object—some third thing—to be grasped, held, stored, manipulated, and wielded, rather than being associated with our acting and existing in a biologically and phenomenologically constituted world” (p. 109). Without recognition of my sexuality and other layers of being that identified me as a student teacher, I submitted to this accounting. Many years later I realized that my silence was a form of complicity sustained by fear. Like other foundational truths, silence was one way to fortify my senses of self-security rather than leave me feeling vulnerable.

By the time I had entered magistral studies I was openly challenging instrumental views of education. Like Jonassen (1991), I questioned objectivism as a paradigm for educational participation and found myself drawn to subjectivist epistemologies. Pratt (1998) distinguishes subjectivism and objectivism as follows: "One conceives of knowledge as existing independent of the learners' interest in it, or awareness of it (objectivism); the other conceives of knowledge
as something that is intimately determined by the learner (subjectivism)" (p. 22). I was enchanted by the interpretive emphasis of subjectivism. My senses of interpretation were influenced by the introduction of constructivist learning theories in the public school system sometime during the 1980s. The language of constructivism replaced images of teachers as authorities with images of mentors, facilitators, and co-learners:

Constructivism is not a theory about teaching. It's a theory about knowledge and learning. Drawing on a synthesis of current work in cognitive psychology, philosophy, and anthropology, the theory defines knowledge as temporary, developmental, socially and culturally mediated, and thus, non-objective. Learning from this perspective is understood as a self-regulated process of resolving inner cognitive conflicts that often become apparent through concrete experience, collaborative discourse, and reflection. (Fosnot, 1993, p. vii)

I had always believed that one of the most crucial and engaging tasks of teachers was to challenge students' thinking. Yet I questioned whether I was honouring this commitment through a transmission view of teaching. I would eventually be introduced to a Developmental Perspective of teaching (Arseneau & Rodenburg, 1998). That perspective would enable me to apply constructivist learning theory to a comprehensive reassessment of my teaching. In the meantime my understandings of constructivism were more intuitive.

There were three frames of reference that made these understandings explicit. One reason I was attracted to constructivism was because it validated personal experience as a primary source of learning. *What about teachers-as-learners, however?* I began to see that constructivist teachers
were first and foremost committed learners tasked with rethinking, reassessing, and when necessary, changing their instructional practices.

A second reason I was attracted to constructivism was because it suggested a dynamic view of cognition. Teachers and learners were not passive recipients of knowledge or empty vessels. They actively participated in assigning meaning to their experience of the world. Constructivism suggested that personal agency and well-being were largely reflections of how systematically classroom participants evaluated their views of knowledge. These views informed senses of self and other.

I also recognized the impact individual meaning-making might have on classrooms as a whole. This was a third reason that constructivist theory excited me: it integrated self-development with the renewal of entire learning communities.

All of these associations were personal beliefs that not only influenced how I made sense of my elementary teaching but also graduate-student learning. I was moving away from a view of curriculum-as-plan and moving towards a more interpretive and experiential view of curriculum. In preparation for my masters research I decided to interview several faculty members with the goal of soliciting feedback on my research design and methodology. I did not expect the feedback I received, however. I was shocked to learn that scholarly research, like teaching, was not an objective science but could be undertaken within different theoretical frameworks using different methods of inquiry.

I eventually chose a life story methodology to explore adult teaching and learning in a conflict resolution program (Hocking, 1996). My focus on interpretivist research (Smith, 1989) overlapped with my interest in constructivist teaching. I experienced great joy and freedom
moving from an objective to subjective research orientation and looked forward to undertaking my field study.

This sense of freedom was short-lived. As I interviewed research participants I discovered that many of their experiences did not fit popular theories of adult teaching and learning very well. Often the models were too restrictive or failed to acknowledge multiple and conflicting ways of being. One of the fascinating characteristics of conflict resolution training was that it invited adults to become learners, experientially and reflectively, through ongoing evaluations of their individual and social circumstances. As an educational researcher, I was disillusioned trying to match tidy, theoretical perspectives with the idiosyncratic narratives of adult participants in my field study.

I also grew uncomfortable with my authority as a constructivist researcher. I was dissatisfied on two accounts. Although I was collecting other people's stories, it was my decision, which stories to include and how to edit and re-present them in a scholarly text. This authority contradicted my senses of teaching and learning as forms of co-inquiry.

A second frustration was that the mechanics of analyzing and representing the narratives seemed to remove me from the sensuous particularities of field interviewing. In other words, the research process and product seemed disconnected from one another. Although I tried to write sensuously and evocatively the writing act itself seemed to privilege mind over matter.

By the time I had completed my magistral thesis I was beginning to realize that subjectivism as much as objectivism could be used to legitimate fixed subject positions, thereby invoking foundational views of knowing. The difference was that my source of knowing was now coming from inside rather than outside my body.
In retrospect, this was probably a radical and naive view of constructivist sensibilities. Yet for all the joy of my research it seemed to sequester me from everyday experience. This sense of dissociation raised questions for me about the constraints and possibilities of educational inquiry.

*Stage 3: Reclaiming the participatory imagination.*

Human beings are creatures of the flesh. What we can experience and how we make sense of what we experience depend on the kinds of bodies we have and on the ways we interact with the various environments we inhabit. It is through our embodied interactions that we inhabit a world, and it is through our bodies that we are able to understand and act within this world with varying degrees of success. (M. L. Johnson, 1999, p. 81)

Although I had experienced a deep sense of cognitive dissonance throughout my masters inquiry I could not pinpoint the source of my concern other than to express dissatisfaction with the subject/object, planned curriculum/lived curriculum binaries that had invalidated my senses of teaching and learning as complex forms of experience and reflection.

Awareness of what I was experiencing did not surface until after I entered doctoral studies in 1996 and enrolled in a graduate seminar on embodied cognition. The purpose of the course was to investigate emerging discourses of embodiment from the sciences of cognition and complexity and relate them to understandings of curriculum and instruction. Two instructors facilitated the seminar. Although course readings included texts by Bruner (1996) as well as Lave and Wenger (1991), primary emphasis was given to the enactive view of Varela, Thompson, and Rosch (1991).
It is not often that a course disrupts my basic senses of identity. Yet in seminar I felt the ground beneath me caving in. Part of this feeling came from the new terrain I was exploring. When I first encountered Varela, Thompson, and Rosch (1991) the obscure language of their writing overwhelmed me. Although their work highlights a sensuous view of human action and reflection, the discourse they use to deliver that message is intensely theoretical. Heshusius and Ballard (1996) observe that many new science publications are "typically written in the dominant rational mode of discourse, as if the knowing they contain was constructed exclusively by the reasoning process" (p. 11).

Despite its difficult terminology enactive philosophy did offer an alternative to the reductionistic perspectives of knowledge I had encountered at the masters level. Varela, Thompson, and Rosch's (1991) perspective interrupted what I thought cognition was and challenged me to explore what it might be through my emerging senses of embodiment.

One of the most important associations I made with enactive philosophy at this time was the notion of participatory perception derived from Merleau-Ponty (1945/1962). By asserting that perception, phenomenologically considered, is inherently participatory, we mean that perception always involves, at its most intimate level, the experience of an active interplay, or coupling, between the perceiving body and that which it perceives" (Abram, 1996, p. 57).

This reciprocal view of knowing had three effects on me. First, it shifted psychological senses of myself to an ecological worldview that connected my body to other living organisms in an intricate web of relationships. Second, it emphasized identity as a fluid and evolving event rather than a fixed set of representations. I began to realize that my self-identity was not only a product of what I thought at a given time but a co-emergent form of self-organization with/in my environment:
The self, then, is both the product of complex processes and a complex process that participates in its own making. The self arises amid established forms of knowledge as it participates in making new knowledge. The self is both invented and inventing, created and creating, product of learning and agent of learning. (Davis, Sumara, & Luce-Kapler, 2000, p. 178)

In class graduate students were encouraged to acknowledge the interplay between cognition as process and product by referring to cognition as a verb and noun.

A third way in which a participatory view of perception influenced my thinking was to highlight the importance of the senses as a medium for embodied learning. If perception emerged from experience, then the quality of sensory experience, I deduced, would affect the quality of my thinking. Other students in the graduate seminar also made this connection.

I turned to my most familiar frames of reference—my experience as a graduate student and public school teacher—to investigate this relationship. When I contemplated sensuous forms of learning I was reminded of young voices in the elementary school where I teach. Teasing voices. Playful voices. Caring voices. Voices of hands and feet and tongues. I was aware that children had to engage their bodies in order to learn and interact with their environments.

The participatory quality of children's imaginations became an important focus of my self-inquiry and writing illustrated by the following narrative:

*It is the end of October and I am in the school parking lot helping another teacher to unload pumpkins from her car. Both of our classes will carve them later in the day. While we are working a*
grade two student passes and offers help. He places pumpkins on
the dolly and starts to pull it from an attached cord. I push at the
back. A couple of pumpkins roll onto the sidewalk. I replace them
but others fall off as well. Suddenly, the student squeals that the
pumpkins are alive. "They are human!" he screams. A wee boy no
older than 7 years reminds me that the world we inhabit is animate
and that education is a living form of inquiry. Within a matter of
seconds he has transformed a routine activity into an engaged,
sensuous relationship with the world around him. I am glad that he
is pulling the cart and not I.

My tendency was to compare embodied experiences of young learners with disembodied
activities of adult learners. I finally realized that this was a false dichotomy rendered problematic
for several reasons, including different social contexts and histories at both levels of education,
different demand structures, different reward systems for faculty and students, and different
views of knowledge that influenced how programs were conceptualized, implemented, and
evaluated. Not only did each education system have its beliefs about being and becoming a
teacher but views of knowledge about teaching in both instances translated into different forms
of classroom participation. I recognized the limitations of comparing one educational system to
another.

However, this raised more questions about the value of enactive teaching in higher education:
What did it mean to be an enactive educator? How would enactive philosophy translate into
particular ways of being for me as a faculty instructor? The significance of these questions is
captured by Heshusius and Ballard (1996) who observe that "if we wish to transform ourselves
into an embodied existence, then the question becomes how to live in and talk about an
embodied reality, how to foster, also . . . an embodied reality that many long to live in" (p. 10).
Stage 4: Membership in an enactive learning community.

The embodied classroom asks us to introduce the customs and mores of collaboration and community, since one of the great ironies here is that to work in seeming isolation within a technological universe requires ultimately working collectively. The embodied classroom invites students to know themselves in ways only interaction with others can provide. (Emig, 2001, pp. 279-280)

Although my participation in the graduate seminar had engaged me intellectually, I knew that a theoretical knowledge of my subject matter was contrary to the intended learning outcomes of the course. Other classmates shared this sentiment. If we were going to live enactive philosophy we would need to develop embodied practices in our roles as teachers, learners, and researchers on and off campus.

Five of us who attended the embodied mind seminar started contemplating how this might happen. We recognized that we still had much to learn from enactive philosophy. We decided that it would be beneficial to participate in the graduate seminar a second time with the intention of strengthening connections between our understandings of its theory and our diverse educational practices.

Over time our shared commitment began to assume a sense of community. We met one another regularly, sharing our evolving understandings of Varela, Thompson, and Rosch (1991). Although the second seminar used a different set of readings than the first, students who participated in both seminars continued to identify with enactive philosophy as a primary conceptual framework for embodied views of cognition in education.
My own re-entry into the graduate seminar served dual purposes. By now I knew that I wanted to focus on enactive teaching in higher education for my doctoral research. I also knew that the graduate seminar was a special course that might not be offered in subsequent years. I applied for and received ethical consent to enter the class as a researcher/participant to document perceptions of embodied teaching and learning among seminar participants. Details about my field study are outlined in chapter 2.

As I immersed myself in class activities and reconnected with other students from the previous year, I found myself becoming part of a dynamic learning community. Talking through enactive philosophy itself became an invigorating form of enactive inquiry. I found myself reflecting on embodied senses of curriculum and instruction and deliberating more purposefully with others. In retrospect, I see that these conversations were a crucial form of self-organization that allowed me to rethink and negotiate my evolving understandings of enactive teaching and learning based on my prior knowledge.

There was a reflexive quality to these dialogues. Instead of privileging one way of being above another, they suggested a fluid and relational view of self. I began to question where embodied knowing started. As much as my biological body distinguished me from other bodies, my senses of self were also rewritten through my interactions with others. "What is inside and outside a body? What is social? Individual? . . . . If so much is taken-for-granted in a single body, how much more so, then, is hidden in a social body" (Spina, 1999-2000, p. 98)? This was a pivotal question in my development as an enactive teacher and learner.

As my understandings and experiences of the bodymind relationship shifted, my relationships with others shifted. Instead of someone looking out on the world I found myself caught in relationships with others. Davis, Sumara, and Luce-Kapler (2000) capture this interplay by reflecting on the permeable boundaries between one knowing body and another:
Events of self identification are not always about distinguishing an "I" from a "not-I." In fact, it may be that most events of self identification are about becoming part of a "we." Most of one's activities are framed by the groups and cliques with which one identifies, as are the opinions and perspectives that orient one's interpretations. (p. 174)

This is an ecological view of identity that reflects a participatory view of perception.

My connections with other enactive researchers continued after I had completed my field research and graduate seminar. I continued to experience a close-knit connection with seminar participants. In 1999 I co-organized an international conference with two other graduate students entitled Bodymind: Holistic Explorations of Cognition, Action, and Interaction in Education. The purpose of the conference was to offer a venue for faculty and students to explore enactive, ecophilosophical, and other perspectives of embodiment through interactive workshops and presentations. It also allowed us as graduate students to extend our understandings beyond enactive theory. Curriculum theorist David Jardine and ecophilosopher David Abram were invited to our conference as keynote presenters in part because of their commitment to embodied and phenomenological forms of thinking that we recognized as complementary discourses to enactive philosophy.

Following this experience conference participants were invited to reflect on their presentations and experiences and submit texts for consideration in a published collection of essays. Conference organizers served as co-editors of this collection which was published under the title Unfolding Bodymind: Exploring Possibility Through Education (Hocking, Haskell, & Linds, 2001). It included texts on the human/nature and body/mind connections highlighted at the conference.
In the past year, while thinking about my actions from that period—the learning projects that I
developed with other graduate students and our evolving senses of self-in-community—I started
philosophy with her writing on two general levels. First, she celebrates the participatory potential
of human beings in a complex world. Second, she identifies questions of self-knowing with
questions about our roles and relationships with others as citizens. Both of these complemented

In one work Arendt (1958/1998) reflects on three fundamental activities—labour, work, and
action—that she maintains are critical to our relationships as human beings with the world
around us. She says that action shares an Aristotelian connection with political participation in
ancient Greece. Action in this context, more than work and labour, was deemed to be the most
worthy of human affairs:

> Neither labor nor work was considered to possess sufficient dignity
to constitute a *bios* at all, an autonomous and authentically human
way of life; since they served and produced what was necessary
and useful, they could not be free, independent of human needs
and wants. That the political way of life escaped this verdict is due
to the Greek understanding of *polis* life, which to them denoted a
very special and freely chosen form of political organization and
by no means just any form of action necessary to keep men

Arendt (1958/1998, p. 176) notes that it is through community-based action and speech that we
come to discover our distinctness—as opposed to our otherness (*alteritas*) as human beings.
As I read Arendt (1971/1977; 1958/1998) I see a connection between what she is saying about participation and the participatory nature of perception described by Varela, Thompson, and Rosch (1991). Both discourses raise difficult questions about the challenges and possibilities of being a teacher/scholar. Both speak to the senses of community I had started to experience as a graduate student through enactive forms of inquiry.

It has been over 7 years since I was first introduced to the graduate seminar on embodied cognition. Yet even at this date many of its participants continue to reconnect with one another.

**Stage 5: Attending while letting go.**

*The enactive view* has allowed me to think differently. It's allowed me to be mindful of the things that I wasn't able to do before. Systems theory and network theory really affected me. I keep thinking of how to bring this cyclic process in and I haven't quite figured out how. I think that that's part of being mindful too. *Mindfulness is me emerging.* (Gayle, personal communication, October 4, 1997)

After completing doctoral courses and co-editing the *Bodymind* collection, I found myself at another stage in my development as an enactive researcher and teacher. It was a stage characterized by a sceptical but ultimately liberating sense of embodied cognition. It characterizes my most recent thinking.

Earlier I described how my understandings of participatory perception led me to focus on tangible artifacts of teaching and learning, including sensory learning activities. At that time I had compared children's learning to adult learning as a frame of reference for engaging my
participatory imagination. My attention to material bodies of experience was an attempt to reclaim the sensuous particularities of everyday living and to celebrate curriculum-as-lived. As I instructed children and adults I encouraged them to bring their life experiences into class assignments and discussions.

This recuperation of the senses was a meaningful connection with enactive philosophy based on my understandings at the time. It is also a response that is widely embraced in the literature. O'Loughlin (1998), for example, analyzes how postmodern texts have under-served the materiality of bodies by representing them as abstract objects of inquiry "determined by (non-material) discursive regimes of power" (p. 278). Sheldrake, McKenna, and Abraham (2001, chap. 9) argue that modernist forms of education privilege written literacy above experiential forms of learning, thereby removing students from direct sensory experience and participation in the subjects they are studying. Evidence of this weighting, they argue, is implicit in the certification process used to legitimize higher education. "For this reason, to the despair of educators throughout the world, most students passing through universities seem to have more interest in receiving degrees than real interest in the subjects they're studying" (Sheldrake et al., p. 141). Like these authors, I longed to awaken the scholar's sleepy imagination, so that it would connect with "wondrous symphonies of social experience" and "see the sensuous shapes and colors that fill windows of consciousness" (Stoller, 1997, p. xii).

However, after living with enactive philosophy for many years I began to question my initial commitment to sensory experience as a primary indicator of embodied teaching and learning. There were different reasons for this reassessment. Direct sensory participation in all areas of learning was impossible given the nature of some subjects and limitations of time, space, and resources. But did this mean that student learning was not embodied?
I also recalled Pratt’s (1998, p. 35) description of an instructional perspective as a web of relationships among instructional actions, intentions, and beliefs. Although instructional actions (techniques) are important, he argues, "unless we understand what a person is trying to accomplish (intentions) and why they think that is important or reasonable (beliefs) we are very likely to misunderstand the meaning of their actions" (Pratt, p. 18). In my haste to embrace pedagogies of sensuality I had focused on enactive actions and activities without attending to their associated intentions and beliefs.

With this awareness I was reminded how easy it is to succumb to one point of view, one way of being, versus another. Yet my primary fascination with Varela, Thompson, and Rosch (1991) was that they integrate the carnal sensuality of everyday experience with a human capacity to wonder and participate with other beings in a "more-than-human" (Abram, 1996) universe of chaos and complexity.

Having acknowledged experience as a seductive focus of embodied instruction, I was called to look once again at the role of my thinking within experience and consider connections between curriculum-as-plan and curriculum-as-lived. This is what characterizes the fifth stage of my development. I had immersed myself in the circularity (Varela et al., 1991, p. 3) between experience and reflection. Only now I was aware that this circle defined my felt senses of embodiment:

> We reflect on a world that is not made, but found, and yet it is also our structure that enables us to reflect upon this world. Thus in reflection we find ourselves in a circle: we are in a world that seems to be there before reflection begins, but that world is not separate from us. (Varela et al., p. 3)
Being aware of this circle can be transformative if we engage reflection as a form of experience to rethink and re-enact our senses of being in the world. Varela, Thompson, and Rosch (1991) describe this embodied awareness as "mindful, open-ended reflection" (p. 27).

The significance of mindfulness for me in the fifth stage of my learning has been to question how my intentions, feelings, and beliefs render me complicit in particular ways of being. To what extent do my beliefs complement and support my actions as a teacher? When and how do opportunities to rethink classroom participation become opportunities for self-inquiry and development? How do my reflections on teaching connect me to other members of a learning community?

Many years ago Daniel Goleman (1978) observed that Gregory Bateson, a systems thinker, was always studying "patterns behind patterns, the processes behind logical categories, the relationship of the whole to its parts, the lawfulness of paradox" (p. 43). Goleman referred to this as a "mind-bending realm" (p. 43). My interactions with enactive philosophy have challenged me to strive for the same metacognitive awareness. At the same time I am reminded that such awareness is only possible because I inhabit my body. I am constantly questioning how my mind throws me back into the world and how that world disrupts my thinking and infuses my body with the breath of life.

Relsearching Teaching at The Edge of Chaos

The edge of chaos is a fine balance point where "components of a system never quite lock into place, and yet never quite dissolve into turbulence, either. The edge of chaos is where life has enough stability to sustain itself and enough creativity to deserve the name of life" (Waldrop, 1992/1993, p. 12). This description applies to my self-development as a teacher/learner as well as the research process I have used to investigate enactive ways of being.
This sense of living on the edge stems from my desire, on one hand, to develop a stable body of knowledge that I can take into any classroom and, on the other, a realization that my participation within a particular instructional context is already transforming my thinking. My journey of self-development has teetered between prescriptive views of teaching in the form of foundational truths and a series of disorienting experiences that have challenged me to rethink my actions, intentions, and beliefs.

Enactive philosophy has helped me recognize that my teaching body is not a closed system. What I think and how I experience the world are not independent of one another. They are part of complex relationships that identify personal and collective senses of embodiment:

We can draw boundaries around ourselves (and it is very often appropriate to do so), but we cannot give ourselves boundaries without believing in the impossible—that our lives can go on, that we can be, without an ongoing conversation with "this precious Earth," one that includes our "knowledge" of it, but also includes our breathing of it. (Jardine, 1998, p. 81)

The interplay between sensuous and reflective bodies of cognition characterizes the ebb and flow of teaching as a living practice. It is the mystery, terror, and frustration of dilemmas emerging from this practice that summon our most fundamental senses of self in our struggle for authenticity (Grimmett & Neufeld, 1994, p. 6). How faculty reflect on their identities is crucial to how they see themselves as teachers and the worlds they imagine for others.

The need for critical self-reflection among teachers cannot overshadow a similar need among learners. Discourses of embodiment, Sanders (1999, p. 121) says, are based on the importance of human agency, that is, the ability of human beings to act within limits to change their life
circumstances. Yet enactive philosophy suggests a more ecological and relational view of self. Teaching does invite ongoing self-analysis and development; yet the purpose of that reflection is to support others in their lifelong journeys as adults. Tennant (2000) notes that "adult educators are almost always engaged in promoting learning for personal change" (p. 87). Without this concern for others there would be no moral value to our educational roles and responsibilities. This value does not come solely from how well we understand ourselves but how inventively we re-create our self-perceptions in dialogue with others.

Enactive philosophy underscores the importance of education as a moral activity by inviting us to reconsider the aims and purposes of teaching. This includes considerations of agency. It also includes a consideration of teachers' social roles. Grimmett and Neufeld (1994) conceptualize the struggle for authenticity in today's educational climate as a conflict between neoconservatives and previously marginalized groups, including teachers. This analysis can be juxtaposed with arguments about educational reform versus educational renewal (Goodlad, 1999; Sirotnik, 1999). Reform is identified with prescriptive, dehumanized views of curriculum-as-plan. Renewal relates understandings of schools as complex ecosystems in which educational participants engage in continuous self-reflection. A view of renewal is compatible with curriculum-as-lived.

Both of these two views of educational change use binary logic to compare one way of being with another. Yet the contrast raises possibilities for integrating fundamentally different worldviews and epistemologies. One reason Varela, Thompson, and Rosch (1991) identify themselves with Merleau-Ponty's work and Madhyamika Buddhism is because both these philosophies reveal a middle way or "entre-deux" (p. 3) between an internal, subjective frame of reference for cognition and an external, objective view of the world.

The significance of the middle way in education is to remind us that individual efforts to understand ourselves are never wholly subjective or objective, but a complex dance we enact
with others while simultaneously reinventing ourselves. Embodied views of cognition are neither one way of being nor another. They are what they are according to relationships we engage through our ways of living.

Recognizing a middle way in classrooms is what enables teachers to experience a sense of agency amid chaos and to develop a dynamic, self-renewing sense of themselves as learners. Finding moral purpose in changing educational environments also means reassessing instructional motivations. Teachers must not only address what is important for them individually or for their organizations, but what is vital for learners (Grimmett & Neufeld, 1994, pp. 4-5).

Although stressful, life at the edge of chaos is one of the most fertile places to inhabit, an oasis that resists stasis as well as self-destruction. Living at the edge reminds us of possibilities as well as perils we face as educators engaging complex worlds. It reminds us that efforts to embody curriculum are never wholly planned, never wholly serendipitous but always middle ways between what we hope will happen and what happens after we walk through the classroom door. Living with complexity reminds us that the voices we hear in our mind's eye as teachers are not only our own. They are also voices of students and community members who share our expectations and fears about education as a life-altering space. Living at the edge reminds us that we can never be complacent in our roles as teachers because our ability to nurture and stimulate learners is a delicate balance between what is and what might be.

If we are to thrive in this environment we need to honour diverse ways of being that call for courage and creativity in our roles as citizens, scholars, and artists. We need to trust intuition as much as reason and emotion. Whether we flourish at the edge of chaos will depend on how mindful we are of ourselves as particular kinds of bodies. It will also depend on our tolerance for
change, our willingness to risk reinventing ourselves through language, experience, and reflection.

*Developing A Framework for Enactive Teaching: An Overview of The Dissertation*

Researchers also live at the edge of chaos—which is to say that educational inquiry is a self-organizing phenomenon. Living at the edge as researchers means that we are constantly challenging our senses of teaching as an objective body of knowledge that can be represented in our heads or a subjective interpretation that we project onto our environments. I have tried to balance theoretical descriptions of enactive philosophy with texts that disrupt and affirm the philosophy in my own classroom participation and self-development.

This participatory view of cognition suggests a need to reconceptualize academic participation as embodied performance. O'Connor (n.d., §1) argues that performance "has outgrown its rather narrow theatrical meaning and has come to serve as a paradigm for the means by which we participate in our culture and in our world." He emphasizes the importance of embodied learning for this purpose. Conceptualizing my dissertation as a performance space allows me to question and reinvent my senses of teaching and learning while inviting others to do the same.

My text consists of 8 chapters, including the introduction and conclusion. A prologue and coda serve as bookends for the dissertation. Chapter 1 expands on ideas presented in the introduction. I identify enactive cognition with a history of ideas in philosophy and science that have informed embodied views of education as a space of possibility. The purpose of the first chapter is to develop the theoretical context of my research inquiry.
This is followed in chapter 2 by a description of my research methodology and methods. I explain the significance of narrative inquiry-as-dance in relation to my enactive research methodology. Details of my field study are also provided.

Chapters 3 through 6 offer a series of narratives based on enactive teaching in higher education. Each chapter reflects a key narrative based around a theme. One exception is chapter 5, which is a synthesis of two research narratives. Narrative themes are designed to acquaint readers with tensions and possibilities of enactive teaching. The themes introduce specific ideas within enactive philosophy. Day-to-day roles and responsibilities of teaching, including lesson planning, implementation, and evaluation, contextualize these ideas.

Most narratives have evolved out of my field research with participants in Carolyn's graduate seminar. Some of the most memorable texts come from doctoral students who, like me, had participated in the graduate seminar twice and were therefore very familiar with enactive philosophy. However, I have included research reflections from other students as well to offer a variety of perspectives. In addition to these formal research narratives, my own narratives of self-development as a teacher are integrated into the body of my work.

The narratives I have chosen speak most directly to my two primary dissertation questions. The stories reveal that the two questions I used to frame my inquiry are in fact one: relationships that constitute learners' embodied understandings of themselves and others are the same relationships that nurture holistic understandings of teaching. Abram (1996) says, "humans are tuned for relationship" (p. ix). This is an enduring message of the dissertation. Its lesson is that we become fuller, more holistic teachers through our quality of relationship with others.

The narratives I have chosen reflect this view of mindfulness as a quality of relationship with self and other, including the environment. Chapter 3 asks where enactive teaching starts. Self-inquiry
is viewed as a starting point for enactive instruction. This chapter is based on reflections from my experience learning to teach as well as my participation in an enactive teacher education course.

Chapter 4 extends the need for self-inquiry with a need to know others. The question that is central to this chapter is how we can balance multiple relationships amid the dynamic, often chaotic pace of classroom participation. I share a kayaking story from Gayle, a participant in my field research, and relate it to the enactive principle of laying down a path in walking as an orientation for teaching. Gayle's outdoor experience offers a frame of reference for new ways of being in higher education classrooms.

Chapter 5 extends the theme of the previous chapter to laying down a path in talking. This chapter is about language as an enactive phenomenon. I explore language as a participatory form in the context of two research conversations with Lara and Murray. Arendt (1958/1998) and Maturana's (2001) views of interpersonal communication enlarge these conversations.

The importance of language is extended in the final narrative, chapter 6. This text emphasizes the performative role of language not only in facilitating understandings of other people, but also in developing an ecophilosophical view of the environment. This chapter asks how composing ourselves through language might allow us to consider teaching as a work of art, a connection that gives new meaning to education as a space of possibility. Again, I draw from a conversation with Lara.

Following these four narratives, I conclude the dissertation with reflections on my research journey. I explain the significance of enactive teaching for the field of adult and higher education, identifying my contributions in this area.
This is the shape of the dissertation. As I reflect on the connection between embodied learning and self-development on one hand and, on the other, an enactive perspective of teaching, I am reminded of a quote from Merleau-Ponty (1945/1962):

The phenomenological world is not pure being, but the sense which is revealed where the paths of my various experiences intersect, and also where my own and other people's intersect and engage each other like gears. It is thus inseparable from subjectivity and intersubjectivity, which find their unity when I either take up my past experiences in those of the present, or other people's in my own. (p. xx)

His words, like Aoki's (1992a, pp. 17-18), beckon us to listen to diverse voices while reconsidering the aims and purposes of teaching.

In the final analysis, enactive philosophy is a call to reinvent ourselves in a complex world. This is why an embodied view of reflection in graduate education classrooms is so critical. If we are to challenge conceptions of teaching at the university level, those changes must be introduced to doctoral students preparing to become new faculty. It is in graduate education, Boyer (1990) maintains, "where professional attitudes and values of the professoriate are most firmly shaped; it is here that changes are most urgent if the new scholarship is to become a reality" (p. 68).
CHAPTER 1

The Enactive View:
Its Philosophical and Scientific Layers
The Enactive View:  
Its Philosophical and Scientific Layers

The fundamental circularity of participatory perception is characteristic of enactive theory itself. Its two most engaging circles are those constituted by its scientific and philosophical networks of relationship. Enactive theory is not an educational framework per se, although it continues to be embraced by a growing number of educators such as Breen (1999; 2001a; 2001b; 2002), Davis and Sumara (1996; 1997), Wright (1998a; 1998b) and others interested in reconceptualizing teaching, teacher education, and curriculum inquiry. There has been a dramatic increase in enactive research and scholarship in the last decade in areas as diverse as Australia, South Africa, Europe, and North America. Stanley Frielick (2003), a lecturer at the University of Auckland, New Zealand refers to enactive views of knowing in his work. Various reading lists for enactive theory can be found through Internet searches. They include one by mathematics educator David A. Reid (n.d.) at Acadia University, Nova Scotia.

The fact remains, however, that the theory I explore was developed in South America by two biologists, Humberto Maturana and Francisco Varela, and later evolved into a more general account of living systems. Why, then, has it captivated educators? How does enactive theory inform understandings of pedagogy and cognition? How do these understandings translate into holistic teaching and faculty preparation at the university level? In order to address these questions, it is important to step inside the first circle, the philosophical origins of enactive theory, before focusing on its scientific particularities. Science and philosophy both interact in Varela, Thompson, and Rosch's (1991) research. However, the philosophical dimensions of their work speak to the universality of the human condition—how it is that we come to know, what distinguishes us as human beings from other living organisms, how our embodied minds connect
us to one another—and thus serves as an engaging space for educators and non-educators alike to enter into enactive science.

**Incentives for Non-Dualistic Views of Mind**

*Difference within diversity: A revolution of minds.*

Ask someone what embodied cognition is and you will receive a diverse group of responses ranging from critical and scientific explanations to those associated with folkloric forms of New Age philosophy. Philosopher/psychiatrist R.D. Laing (1960) included a chapter entitled "The Embodied and Unembodied Self" in his classic work on schizophrenia, *The Divided Self: An Existential Study in Sanity and Madness.* During the course of my doctoral research I have explored embodied discourses of knowledge in phenomenology (Merleau-Ponty, 1945/1962), ecophilosophy (Abram, 1996; Abram & Jardine, 2001), holistic education (Hocking et al., 2001; Miller, Cassie, & Drake, 1990; R. Miller, 1991; R. Miller, 1997; R. Miller, 2000), holistic and alternative healthcare and healing (Sylvia, 1997), spirituality and contemplative practice (Friedman & Moon, 1997a; J. P. Miller, 1994; J. P. Miller, 2000; Solloway, 1999), sociology and cultural studies (Budgeon, 2003; Turner, 1984; Weiss & Haber, 1999), feminist theory (Griffin, 1999; Tomm, 1995), and many other areas of inquiry.

An overview of embodiment by Chrisley and Ziemke (2002, p. 1102) in the recently published *Encyclopedia of Cognitive Science* is more specific. It identifies three features, some or all of which identify embodied approaches to cognition: (a) attention to the body and sensorimotor processes in cognition; (b) "understanding of cognition in the context of its (especially evolutionary) biological function: to support the activities of the body;" and (c) "real-time, situated activity . . . often fully interwoven with perception and action" (Chrisley & Ziemke, p.
However, the authors acknowledge a wide range of philosophical and conceptual frameworks in this area.

There are also other areas of inquiry in the cognitive sciences, we are told, that overlap with explorations of embodiment. These are issues of embeddedness, (the connection between the cognizing agent and her environment), noncomputational and nonrepresentationalist view of knowledge (to be explained shortly), and dynamics systems theory derived from the field of mathematics (Chrisley & Ziemke, 2002, p. 1103).

Chrisley and Ziemke's (2002) overview is significant on three accounts. First, it identifies common understandings of embodiment and areas requiring further investigation. Second, it contextualizes embodiment historically as an orientation that emerged during the mid-1980s and conceptually as a system of principles and ideas within the cognitive sciences.

"Cognitive science can be defined broadly as the scientific study of minds and brains, be they real, artificial, human or animal" (Nadel & Piattelli-Palmarini, 2002, p. xiii). However, there is ongoing discussion about its disciplines and purposes (D. M. Johnson & C. E. Erneling, 1997). Varela, Thompson, and Rosch's (1991) acknowledge diverse cognitive sciences which, they argue, evolved in three stages (p. 6).

Clearly the influence of the cognitive revolution on the domain of cognitive sciences at large and on education played an integral role in facilitating embodied understandings of knowledge and perception. Gardner (1985) begins to address this relationship in his historical perspective of the cognitive revolution. Bruner (1996, chap. 1) attributes recent developments in the study of mind to two divergent views of mind that emerged out of the cognitive revolution: computationalism and culturalism. "The first of these was the hypothesis that mind could be conceived as a computational device . . .. The other was the proposal that mind is both constituted by and
realized in the use of human culture" (p. 1). Jonassen (1991), drawing from Gardner, expresses this legacy in terms of a shift from behaviourist to constructivist theories of learning: "Unlike the behaviorists, who were only concerned with what learners do, cognitive psychologists are interested in what learners know and how they come to acquire it" (p. 6). Extending this trajectory, embodied views of cognition attempt to integrate the knowing and doing of the cognizing agent with her being.

Some of the most interesting moves toward an embodied view of mind since the 1960s have come from the study of artificial as well as human intelligence. In a thought-provoking article Ziemke (2001) asks whether robots are embodied. He notes that although there is acknowledgement "that humans are embodied cognizers, there is little agreement on what kind of body an artificial intelligence would have to be equipped with" (Ziemke). He presents five, increasingly restrictive conditions for bodies to be embodied. They are: (a) a coupling between a cognizing agent and the environment (this can apply to cognitive and non-cognitive systems and is therefore not restricted to living organisms); (b) the historical embodiment of a cognitive system consistent with evolutionary principles of adaptation; (c) the physical embodiment of a system, including the bodies of robots; (d) organismoid embodiment, including living systems and artificial forms of cognition; and (e) organismic embodiment, a view limited to living organisms (Ziemke).

Another cognitive science perspective comes from Clark (1999) who distinguishes simple from radical approaches to embodied cognition. A simple view of embodiment, according to him, is a classical view of cognition as "an inner realm richly populated with internal tokens that stood for external objects and states of affairs" (p. 347). Much of the fascination within the cognitive sciences is not with this kind of embodiment, he surmises, but with radical embodiment. Views of the latter emphasize one or more of the following claims: (a) the "complex interplay of brain, body and world requires new analytic tools and methods;" (b) representational and
computational models of cognition are inadequate; and (c) reductionistic models of cognition and perception are misleading (Clark, p. 349). Of particular interest in this article is the possibility of middle ground between simple and radical schools of thought. Clark acknowledges that embodied studies of cognition should not be limited to the brain but "look beyond the on-line production of tuned motor responses to the creation, maintenance and transformation of the inner and outer states that together allow us to know the world as an arena for embodied action" (p. 350).

The term on-line is one that Margaret Wilson (2002), a psychologist, describes as "arenas of cognitive activity that are embedded in a task-relevant external situation, including cases that may involve time pressure and may involve off-loading information or cognitive work onto the environment" (p. 635). This understanding of on-line performance "to serve the needs of a body interacting with a real-world situation" (M. Wilson, p. 635) in the moment is one that Wilson argues may hold great promise for understanding embodiment as a dynamic form of cognition as compared to more general claims such as the socially situated nature of cognition and an integrative view of person and environment.

Notwithstanding these rich accounts, they underscore a wide range of beliefs and understandings among cognitive scientists. Herein lies the third point of Chrisley and Ziemke's (2002) entry in the Encyclopedia of Cognitive Science. After describing embodiment and acknowledging its related issues, they present a section on the philosophical basis of embodiment, a connection that extends to education and ultimately one that helps us to understand enactive theory as a particular response to the cognitive revolution.
Despite diverse disciplinary and theoretical orientations, many views of embodiment, including the enactive view, have emerged as a formulated and carefully crafted response to the body/mind problem in Western philosophy. That problem is how consciousness can arise in a physical, material body (Burwood, Gilbert, & Lennon, 1999, p. 1). One of the common responses to the body/mind problem has been characterized as epistemological dualism, the notion that mind and matter are two distinct, interacting entities:

Before the twentieth century, the most influential view of mind in Western thought was dualistic: the mind was regarded as composed of a separate, extensionless, nonphysical substance. This view led to many insoluble problems, both philosophical and empirical. For example, how do the mental and physical realms interact? How can we scientifically investigate something that is not in the physical world? (Chrisley & Ziemke, 2002, p. 1105)

Embodied mind theorists contest this dualistic view of cognition which they identity with Cartesian rationality. Varela, Thompson, and Rosch (1991) are no exception. Their philosophy of embodiment is oriented towards the bodymind reunification. They note that "from Descartes on, the guiding question in Western philosophy has been whether body and mind are one or two distinct substances" and add that "it is a matter of simple experience that our mind and body can be dissociated, that the mind can wander" (Varela et al., p. 28).

Whether Descartes' philosophy was as dualistic as is commonly assumed and whether his critics are any less dualistic in their own philosophies are topics of ongoing debate and discussion. Burwood, Gilbert, and Lennon (1999, pp. 1-2) argue that his work can be read otherwise but
acknowledge that Cartesian philosophy established positions for and against dualism that have subsequently created epistemological benchmarks for modern philosophy.

These positions are embedded in educational theory and practice as well. Beckett and Morris (2001) argue that Descartes' legacy persists in the kinds of knowledge that are valued in education: "In Western education, the highest status is reserved for the most abstract and immaterial learning, irrespective of its utility, and the lowest status is accorded to concrete, material learning, much of which we learn in daily embodied action" (p. 36). Whether we attribute mind/body dualisms to Descartes or Rousseau, McWilliam and Taylor (1998) argue, "the fact remains that in the history of Western thought, a mind-body dichotomy has privileged the mind as that which defines human 'being' while the corpus has been interrogated as the excess baggage of human capability" (p. 32).

**Embodied philosophies of teaching and learning: Historical precedents.**

So, what might a non-dualistic, embodied view of mind look like? Here again we are exposed to different perspectives in and out of education. Beckett and Morris (2001) propose a shift from epistemology and ethics to ontology (p. 35). Their post-Cartesian epistemology is based on three principles: (a) authentic, embodied communities of practice; (b) dynamic engagements with diversity and power; and (c) integration between formal learning contexts and their wider environments (Beckett & Morris, p. 44).

Although embodied views of mind have been dramatically influenced by developments within the cognitive revolution and contemporary instructional environments, earlier versions of embodied philosophies about the mind also exist within education. In Ancient Greek philosophy, for example, an education of body, mind, and soul was considered essential to the development and well being of the whole person. A more recent example comes from the thinking of noted
educationist John Dewey whom I cited in my introduction. He valued an integrated view of people in their environments:

John Dewey . . . argues vigorously against the traditional Western conception of mind as being some superior entity seated on a throne within an inferior body. For Dewey and the pragmatists, thought and action are inseparable; therefore, the mind cannot be located in a specific place, but is everywhere in the body. The implication of this position is that human behavior cannot and must not be subdivided into bits and pieces. We think and act as total, unified organisms. Therefore, our approach to teaching and learning should reflect this. (Kleinman, n.d., pp. 2-3)

Dewey (1929/1958) also examines how bodymind philosophies have influenced human relationships with nature. His interest in the bodymind connection was personal as well as philosophical. During the course of his life he developed a fascination for the Alexander technique, an educational intervention used to strengthen posture through heightened bodily awareness.

Early versions of embodied mind philosophies associated with the cognitive revolution can be traced to individuals such as Piaget (1926/1959) whose theory of developmental psychology was intended as a direct response to behaviourist schools of learning at the time. He identified increasingly complex forms of thought with the sensorimotor capabilities and movements of young children through adolescence into adulthood. Significantly, adult learning theorist David Kolb (1984) uses the term enactive when referring to one of Piaget's stages: "The growing child's system of knowing changes qualitatively . . . moving from an enactive stage, where knowledge is represented in concrete actions and is not separable from the experiences that spawn it, to an
ikonic stage, where knowledge is represented in images" (p. 13). Educational psychologist Jerome Bruner (1966) reconceptualized Piaget's stage theory in the United States. It was Bruner, not Piaget, who used the terms enactive, iconic, and symbolic.

A different approach toward embodied learning can be found in Schön's (1983) notion of reflective practice. His writing is a response to Technical Rationality which he defines as "intelligent practice as an application of knowledge to instrumental decisions" (Schön, p. 50). The problem with Technical Rationality, Schön maintained, was that it was a problem-driven, scientific discourse based on positivist modes of inquiry that overlooked tacit dimensions of learning. He was critical of its widespread use among professionals and its institutionalization in higher education. He argued that universities chiefly maintain a knowledge lens that selectively devalues practical competence and professional artistry (Schön, p. vii).

His proposed alternative—reflection-in-action—was intended to highlight complex and emergent dimensions of learning:

> When we go about the spontaneous, intuitive performance of the actions of everyday life, we show ourselves to be knowledgeable in a special way. Often we cannot say what it is that we know. When we try to describe it we find ourselves at a loss, or we produce descriptions that are obviously inappropriate. Our knowing is ordinarily tacit, implicit in our patterns of action and in our feel for the stuff with which we are dealing. It seems right to say that our knowing is in our action. (Schön, 1983, p. 49)

Schön's language begins with knowing but as his description progresses, the lines between knowing and feeling blur, invoking a more intuitive view of the bodymind connection. He adds
that although most reflection-in-action is improvisational, we can "turn thought back on action" (p. 50), reflect on tacit knowledge, restructure our understandings, and embody them in further action. This view continues to privilege a subject/object dichotomy.

A more integrated view of the bodymind connection appears in some socially situated perspectives of adult teaching and learning, including the one offered by Jean Lave and Etienne Wenger (1991). They reflect on this orientation as follows:

That perspective meant that there is no activity that is not situated.
It implied emphasis on comprehensive understanding involving the whole person rather than "receiving" a body of factual knowledge about the world; on activity in and with the world; and on the view that agent, activity, and the world mutually constitute each other.
(p. 33)

In retrospect, movement from one view of embodied cognitive science and philosophy in and out of education reads like a novel that unfolds one chapter at a time.

To assume that these philosophies developed in a vacuum is to treat them without regard to their social contexts. Capra (1996) reflects on the cultural bias of scientific theories as systems of ideas that ebb and flow over time. He argues that the period in which we live is moving towards deeply ecological, holistic knowledge paradigms that he identifies with advances in science. Although his analysis of holistic versus mechanistic worldviews is engaging, it is a dichotomy itself. Nonetheless, his writing raises questions about embodied philosophies of mind in the wake of the cognitive revolution.
Re-reading philosophies of embodiment: Contemporary cultural influences.

When I first began exploring enactive theory as a framework for inclusive forms of instruction, a primary motivation for my inquiry was the shift from modern to postmodern and poststructural views of knowledge associated with cultural trends on campus. These trends include an increasingly diverse, global, intercultural, and mature student population, challenges to canonical knowledge and the idea of the university in general, and a rapid proliferation of new instructional technologies. Early in my studies I reflected on the type of research that I wanted to do in a paper entitled Teaching in the Academy of the Future:

How might teaching be imagined as something greater than what it is today? What does it mean to teach in an institution that is influenced by multiple discourses? What kinds of knowledge are expected of those teaching today? How should this knowledge be enacted? Is it possible to teach to the future in a world that is constantly shifting? (B. Hocking, personal communication, March 5, 1997)

These reflections were based on an electronic communication, The Future of Teaching in the Academy: Request for Help, that I had sent out to adult and higher educators asking for feedback on my research proposal. I had described my research passion by focusing on what it means to teach in a complex and dynamic social world:

With few exceptions, most university instructors become teachers without formal preparation in this area, apart from their graduate studies. Yet instruction in the academy is becoming increasingly complex. As well as the technical skills need to deliver the
curriculum, teachers are also being challenged to be culturally sensitive; that is, aware of important social discourses which have implications for life in the classroom... What guidelines will help instructors to understand teaching in today's academy while enacting their own identities as individuals within particular communities of practice? What does it mean to teach in a postmodern institution? (B. Hocking, personal communication, February 16, 1997)

It is interesting to note how I shifted between a view of teaching that emphasized its psychological significance while simultaneously attempting to position it culturally. I was still experiencing conflict between psychological and sociological views of classroom participation and diversity. Yet I did recognize the impact of cultural trends on my way to an embodied understanding of classroom instruction.

Ongoing social changes within higher education contextualize contemporary philosophies of embodiment. Beckett (1998) maintains that universities are "caught up in a vast epistemological re-negotiation. This involves the rest of the community, technology, the nature of work—and a retrieval... of some holistic notion of vocation" (p. 3). His thoughts focus on the absence of the body in flexible delivery systems such as computer-mediated instruction.

Beckett's (1998) comments resonate with the writings of other adult and higher educators, including those by Diket (1999-2000) and McWilliam and Taylor (1996; 1998). "In real time and real space, learners appear as embodied beings (in 'synchronous interaction'; Berge 1995). However, in 'asynchronous' time and space, learners' embodiments are educationally irrelevant. They need not 'appear' in learning at all" (Beckett, p. 3). McWilliam and Taylor argue for complex understandings of embodiment that stretch beyond a simple, nostalgic need for social
interaction on campus (p. 30). What corporeal difference, they ask, does the teacher's body make to the conceptualization and delivery of learning and instruction?

We know from the increased surveillance of teachers through many policy initiatives in recent years that the teacher's body is no thoroughly benign maternal or nurturing entity—good reason, some may argue, to move to its eradication. We therefore want to take a careful look at the role bodies play in understanding what it means to know things, how utterance differs from printed notes, and how pleasure in learning and the desire to know (and to teach) are differently performed as textual images or embodied engagements. (McWilliam & Taylor, p. 32)

Drawing on postcolonial theory, McWilliam and Taylor (1998) suggest that the dismissal of real bodies in real learning environments may contribute to their marginalization through changing power structures: "Uttering words in the material presence of the teacher does something to reform the identity of learner and teacher. And there are political consequences that go beyond the boundaries of classroom practice" (p.31). Friedman and Moon (1997b) emphasize a shift from "having bodies to being bodies" (p. x).

This is a false dichotomy. Attention to being students and teachers raises important questions for university faculty. An ontological view of education carries weighted implications for teaching and learning. It shifts representations of knowing bodies to embodied performing. When faculty instruct they not only teach instructional content, they teach themselves. They bring who they are as individuals and members of particular cultures and communities into the classroom. Beckett and Morris (2001) introduce their article on ontological performance by asking what kinds of adults we want to be (p. 35).
Education as a framework for social change should not be self-serving. As instructors we are tasked to teach beyond ourselves in order to challenge our self-understandings and connect with the bodies of others. This is one of the great paradoxes of teaching. We can only teach who we are in this body here-and-now at this point in time. Yet this body and this time are in constant flux; they are not fixed points of reference outside our fields of perception. Even as we become conscious of our presence and corporeality our beings have been transformed across a fluid, often amorphous and fragmented array of selves. In a sense we are always reinventing ourselves.

This is a second paradox that makes it possible for us to live with the first. Our shifting senses of identity and subjectivity not only allow us to be who we are; they allow us to transform ourselves in the moment with other classroom bodies:

We begin to see how different components of individuality can be understood as dimensions of existence expressed by an active body . . . . the adult learners' embodied knowledge and experience challenges the universalising impulses of particular classroom practices that privilege a representational epistemology. (Beckett & Morris, 2001, p. 43)

Add to this Gergen's (1991) notion of the saturated self and questions about the performance of embodied identity gain further significance in today's instructional environments. With social saturation, Gergen says, "each of us comes to harbor a vast population of hidden potentials—to be a blues singer, a gypsy, an aristocrat, a criminal. All the selves lie latent, and under the right conditions may spring to life" (p. 71). We can extend this to the enactive classroom to contemplate teacher inquirers as co-learners, facilitators, and a variety of other roles.
Against this background of Cartesian and embodied philosophies of mind, it is important to identify the scientific and educational significance of enactive theory or the "Santiago theory" (Capra, 1996, p. 174) as it is also known. Maturana and Varela's (1987) efforts overlapped with other emerging sciences of cognition and complexity.

Their particular research focused on the phenomenon of colour perception, an area that Maturana had explored previously while conducting research in England and the United States. In 1959 while at the Massachusetts Institute of Technology (MIT) he had co-authored a text that bore the semblance of a riddle: *What The Frog's Eye Tells The Frog's Brain* (Lettvin, Maturana, McCulloch, & Pitts, 1959/1965). This work was eventually published in a book entitled *Embodiments of Mind* (1965) edited by Warren McCulloch, a prominent researcher in the field of cybernetics. After describing the visual perception of frogs, the article's co-authors presented their hypothesis:

The assumption has always been that the eye mainly senses light, whose local distribution is transmitted to the brain in a kind of copy by a mosaic of impulses. Suppose we held otherwise, that the nervous apparatus in the eye is itself devoted to detecting certain patterns of light and their changes, corresponding to particular relations in the visible world. If this should be the case, the laws found by using small spots of light on the retina may be true and yet, in a sense, be misleading. Consider, for example, a bright spot appearing in a receptive field. Its actual and sensible properties
include not only intensity, but the shape of its edge, its size, curvature, contrast. (Lettvin et al., 1959/1965, p. 237)

Note the inference to the bodymind connection in the above preceding quotation. The frog's detection of light patterns in situ leads its researchers to postulate a complex view of perception. The frog's nervous apparatus is viewed structurally as well as functionally.

Significantly, the authors in this instance contrast their hypothesis with a classical, information-processing view of the brain. This view would become a central premise of Maturana's research after he returned to work at the University of Santiago in 1960. Capra (1996) notes that during these formative years Maturana focused on two nagging questions that "seemed to him to lead in opposite directions: What is the nature of life? and What is cognition? Eventually he discovered that the answer to the first question ... provided him with the theoretical framework for answering the second" (p. 174). During the course of his research Maturana discovered that the communicative, self-regulating capacity of an organism's nervous system was not only reflective of its biological identity but was a form of intelligence. This principle of self-organization was one, Maturana postulated, that co-specified the structure, form, and viability of living organisms as dynamic systems with particular identities.

The term he and Varela used to describe this principle was autopoiesis. "Auto, of course, means 'self' and refers to the autonomy of self-organizing systems; and poiesis—which shares the same Greek root as the word 'poetry'—means 'making.' So autopoiesis means 'self-making' (Capra, 1996, p. 97). Out of this formulation the enactive view was developed and presented in depth in a work co-authored by Maturana and Varela (1987). Entitled The Tree of Knowledge: The Biological Roots of Human Understanding it provided an overview of their thinking at the time.
After Maturana and Varela ended their formal research collaboration, they continued applying their understandings to individual areas of inquiry. One result of this continued scholarship was *The Embodied Mind* (1991). It is a text that based on "possibilities for transformation inherent in human experience" (Varela et al., 1991, p. 1). Central to this work is a discussion into the nature of embodied action versus representative or computational models of the mind as an information processor.

Varela, Thompson, and Rosch (1991) do not dispute the neuro-processing capabilities of the brain and our capacity as human beings to imagine and re-create ideas in our heads. Their concern is how this capability, in everyday language, experience, and reflection serves to justify the separation of body from mind, human from environment, self from other. They reject cognitivism as an adequate explanation of how the mind works because it privileges a mind/body dichotomy, that is, it describes cognition as thinking *about* a world that is independent of a cognizing agent:

The cognitivist argument is that intelligent behavior presupposes the ability to represent the world as being certain ways. We therefore cannot explain cognitive behavior unless we assume that an agent acts by representing relevant features of her situations. To the extent that her representation of a situation is accurate, the agent's behavior will be successful (all other things being equal).

(Varela et al., p. 40)

We have, the authors suggest, become so preoccupied with conscious forms of perception that we fail to attend to the unconscious and sensuous particularities of everyday living. This is why
we often seem to be observers rather than active participants in our thinking and learning. This is not, strictly speaking, an academic concern but one that reflects a philosophical preoccupation with our place in the world as it relates to our capacity to know and act with freedom and compassion toward other living systems.

The significance of an embodied view of cognition, Varela, Thompson, and Rosch (1991) argue, is that philosophers such as Merleau-Ponty were able to break away from a reified view of cognition that separated body from mind, nature from humanity, and self from other:

> We hold with Merleau-Ponty that Western scientific culture requires that we see our bodies both as physical structures and as lived, experiential structures—in short, as both "outer" and "inner," biological and phenomenological. These two sides of embodiment are obviously not opposed. Instead, we continuously circulate back and forth between them. (Varela et al., p. xv)

When Varela, Thompson, and Rosch speak about the fundamental circularity of cognition, they are not simply introducing another bodymind philosophy. They are arguing that any retheorization of that relationship and its encompassing view of reflection must be embodied in everyday experience. It is not reflection on experience that they regard as transformative, but rather, that reflection becomes experience and that this experience changes perception. This is the bodymind circle.

**Enactive Philosophy as A Way of Being: Implications for Enactive Teaching**

How do enactive forms of inquiry invite enactive forms of teaching and learning that facilitate a relational view of self, that is, a dynamic sense of personal agency on one hand and a
re/cognition of other bodies on the other? This is a key question for the dissertation. First, enactive theory draws on insights from the sciences of cognition and complexity to reformulate earlier philosophies of embodiment. It extends the notion of bodymind and human nature discourses to a widened view of cognition:

According to the Santiago theory, the brain is not necessary for mind to exist. A bacterium, or a plant, has no brain but has a mind. The simplest organisms are capable of perception and thus of cognition. They do not see, but they nevertheless perceive changes in their environment . . .

The new concept of cognition, the process of knowing, is thus much broader than that of thinking. It involves perception, emotion, and action—the entire process of life. (Capra, 1996, pp. 174-175)

Contemporary ecophilosopher Neil Evernden (1993) warns against "mistaking the skin-encapsulated object for the process of relationships that constitutes the creature in question" (p. 13).

Historically, the writings of Gregory Bateson (1972, 1979, 1980/1987) offer a transition between ecophilosophical views of this type and enactive theory. Bateson was an anthropologist and systems theorist who was constantly exploring relationships between humans and nature. He invited his students to do the same. His work reflects a deeply ecological view of living systems.

The enactive view of cognition, however, is more than a spiritual affinity towards other bodies, although it is that too. Enactive philosophy suggests that an inclusive worldview is neither an
isolated, abstract idea in our heads nor a cold emotion in our hearts. It is an engaged quality of being that connects one body to another. The shift from my body to our body is one that is influenced, in large, by Merleau-Ponty's (1945/1962) view of embodiment as an intertwining of various bodies. He writes, "We witness every minute the miracle of related experiences, and yet nobody knows better than we do how this miracle is worked, for we are ourselves this network of relationships" (Merleau-Ponty, 1945/1962, p. xx). This sense of being part of a network is echoed by poet/educator Carl Leggo. He says:

As a teacher-researcher I am part of "a network of loners." A loner, but never alone, I call out, not as part of a caucus voice that mimics another's voice, but as part of a network that gives heart to one another, listening to the rhythms of blood and oxygen in the heart.

(Leggo, 2002, p. 5)

As individuals we are invited not to acknowledge our bodies for their own sake but because of their relations to others. This is the challenge of mindful reflection based on a commitment to education as a space of possibility.
CHAPTER 2

Reinventing The Self Through Enactive Research: Dance Lessons for Aspiring Artists
Reinventing The Self Through Enactive Research: 
Dance Lessons for Aspiring Artists

The participatory worldview allows us as human persons to know that we are part of the whole rather than separated as mind over and against matter, or placed here in the relatively separate creation of a transcendent god. It allows us to join with fellow humans in collaborative forms of inquiry. It places us back in relation with the living world—and we note that to be in relation means that we live with the rest of creation as relatives, with all the rights and obligations that implies. (Heron & Reason, 1997, pp. 275-276)

Toward An Enactive Research Methodology

Up to this point I have focused on an enactive view of teaching. Varela, Thompson, and Rosch's (1991) philosophy and its constituent texts, including Merleau-Ponty's (1945/1962) phenomenology of perception, have guided my understandings of that view.

One reason these discourses engage my imagination is that they invite me to reconceptualize the aims and purposes of adult and higher education. In contrast to technical-rational schools of inquiry, enactive philosophy offers an ecophilosophical view of academic participation and identity—which is to say that it acknowledges teaching as a moral activity based on embodied relationships. Honouring classrooms as living systems can facilitate mindful, open-ended reflection.
This term is not meant to dismiss the importance of experience as a catalyst for learning. The notion of mindful reflection, rather, is meant to trouble fixed subject positions based on the belief that what we hold in our minds corresponds to a pregiven, objective reality or, alternatively, that the only reality there is, is the one we see in our mind's eye. Enactive philosophy rejects objectivism and relativism as epistemological dualisms. It asks us to envision a middle way between the two. Sumara and Carson (1997) emphasize this orientation in their analysis of Davis (1996). Referring to his enactive theory of learning, they muse:

The locus of cognition and interpretation is not outside the individual human subject waiting to be interpreted (as psychological "cognitivist" theories suggest) or embedded inside the individual (as constructivist theories proclaim) but, rather, exists in the ever-evolving, complex joint actions among persons and their environments. (Sumara & Carson, 1997, p. xix)

Enactive philosophy challenges the restrictive notion that teaching is something we do to others and invites us to reclaim instruction as a quality of relationship. Robyn (personal communication, December 16, 1997), a graduate student said, "I think that's been the biggest thing for me, connections. There are connections everywhere: between people, between mind and body, between people and the environment, between the environment and us." We cannot know or understand all the connections that relate to classroom participation. But we can learn to recognize and value some of them as they appear in this place at this time.

I began to appreciate the significance of this after identifying mindful, open-ended reflection with enactive teaching. Yet my perceptions of teaching also shifted my senses of self-reflexivity as a researcher. I could not claim an embodied view of cognition for the classroom without acknowledging how that view was shaping my research practice. That would contradict the
participatory basis of perception that plays such a central role within enactive philosophy. Varela, Thompson, and Rosch (1991) argue that any conceptual position, including their own, can become a ground and argue that enactive discourse should not be mistaken for the embodied practice of mindful reflection (p. 228). Being mindful as a researcher meant acknowledging the actions, intentions, and beliefs that informed my perspective of teaching.

Other participants in my study acknowledged the significance of enactive philosophy for their research practices. Gayle (personal communication, October 4, 1997) said, "What it's done is that it has allowed me to become mindful of a different way of thinking and a different way of approaching methodology, a different way of approaching research." Carolyn (personal communication, October 1, 1997), the course instructor, said research and teaching are interwoven in her academic performance: "I would say my teaching and my research are inseparable in some ways because I'm a person that likes to experiment in my teaching, try different things constantly. I'm starting now to write about that and honouring that as my research where my teaching's involved."

These perspectives are consistent with an ecological view of research as a living practice, a view that acknowledges "what we do, who we are, and the way we live our lives cospecify one another" (Sumara & Carson, 1997, p. xx). Thinking ecologically comes with two challenges. Educational researchers must strive to understand complex relationships that have shaped their ways of thinking; they must also "learn to live a life that allows one to perceive differently" (Sumara & Carson, p. xvi). Research as a living practice is not meant to objectify lived experience but to actively re-engage and re-organize that experience. Shifts in perception can only occur through shifts in practice. We need to step outside our comfort zones in order to make this transition (Sumara & Carson, p. xvii).
Both of these imperatives—the need to acknowledge research as an historical artifact shaped by a particular path of inquiry and the need to shift direction—extend the teaching paradox I described in the last chapter. On one hand an enactive view of inquiry emphasizes that who we are today is a reflection of our histories of self-organization within particular domains of inquiry. Those domains include research as well as teaching. This perspective invites us to know ourselves as teacher/researchers by acknowledging social, historical, and biological influences that have shaped our perception and ways of being.

As we become mindful of relationships within a text our self-organizing habits of inquiry shift and we are no longer the same researcher. This is the second orientation announced by the paradox. We are able to reflect on our identities because of our experience of the world. Yet reflection is a form of experience that changes how we read and engage research from one context to another.

A key premise of my dissertation is that enactive philosophy facilitates a qualitatively different research experience by highlighting a co-emergent view of inquiry. This emphasis on co-emergence facilitates a different sense of self. Enactive researcher Ippolito (2001) characterizes this as a "felt kinship that attunes the researcher to the research participants. I learned that . . . I was being shaped by the research participants and research activity at least as much as I had thought I would be shaping them" (p. 55). If self-transformation is an explicit goal of enactive research, how do researchers integrate this goal into co-emergent forms of inquiry? What kind of framework will assist them in this endeavour?

As I contemplate these questions I am reminded of Merleau-Ponty's (1945/1962) view of embodied cognition. In his writing he asks how human beings are able to move beyond themselves to accept other bodies in their field of perception:
But this is precisely the question: how can the word 'I' be put into the plural, how can a general idea of the I be formed, how can I speak of an I other than my own, how can I know that there are other I's, how can consciousness which, by its nature, and as self-knowledge, is in the mode of the I, be grasped in the mode of Thou, and through this, in the world of the 'One'? (Merleau-Ponty, p. 348)

Merleau-Ponty's participatory view of perception shifts questions of self-identification to an intersubjective view of relationships.

The reason so many of us maintain a unified sense of self, Varela, Thompson, and Rosch (1991, chap. 4) argue, is because we accept the images we create of ourselves in our mind's eye. When we stop objectifying everyday experience and integrate it into our embodied senses of being we may discover our senses of subjectivity shifting. Instead of a single, unchanging self we may begin to see personal identity as part of a larger, shape-shifting tapestry of multiple selves, all emerging from experience, as much process as product of embodied action and reflection.

The image I use in this chapter to explore a co-emergent view of cognition is that of dance. It is an image that has informed my understandings of educational research. Yet it is also one that has raised trying questions about how to dance with others and myself. I illustrate these tensions and possibilities by reflecting on my relationships with narrative inquiry for my masters and doctoral field projects. I focus on my senses of self at each level to explore specific implications of research-as-dance.

This analogy is not meant to romanticize educational inquiry or suggest a particular level of accomplishment on my part as a dancer. Rather, it is intended as a framework for rethinking
researcher/researched relations. By sharing my struggles as well as successes I hope that the significance of dance as an analogy for enactive research will become clear.

Narrative Phenomenological Views of Self: My Masters Study

One way in which adult educators are called to make assumed senses of self explicit is through stories. Inspiration for this approach comes from a belief that "humans are storytelling organisms who, individually and socially, lead storied lives. The study of narrative, therefore, is the study of the ways humans experience the world" (Connelly & Clandinin, 1990, p. 2). Tennant (2000) adds, "The idea of narrative is attractive to therapists and educators because they are often confronted with the 'stories' of clients and learners and invariably need to respond in some way" (p. 92). This is true of research and instruction. The narration of the self in both contexts will depend on how narrative is understood and engaged as a framework for enacting, challenging, and representing individual and collective ways of being.

One approach to self-narration, says Tennant (2000), "views a narrative construction as a lens through which the world is seen or as a kind of internal model which is a guide to identity and action" (p. 93). This was the view that informed my relationship with narrative at the masters level. You may recall that my masters field project was a life-story analysis of adult learners in a conflict resolution program (Hocking, 1996). The research methodology I used was narrative phenomenology. Drawing from Van Manen (1990), I proceeded under the conviction that "from a phenomenological point of view, to do research is always to question the way we experience the world, to want to know the world in which we live as human beings" (p. 5). In order to discover how conflict resolution learners experienced the world I collected their life stories through two tape-recorded interviews and two focus groups. I chose a small number of participants in order to honour the complexities and sensibilities of each life story.
After completing my field research I was faced with how to present my findings based on my research objectives. As I analyzed my data I tried to distinguish one life story from another. Their differences revealed specific purposes for conflict resolution training in each participant's life. I used this purpose as a focus for reconstructing each life story. The new story was shown to participants and discussed in a follow-up interview. I then used the process of theming described by Aoki (1992b) to cross-analyze and interpret the narratives.

Although I believed that I was using dialogic and cooperative research methods, I became increasingly disenchanted with my narrative authority. I used phenomenological methods under the assumption that I could uncover a representative life story for each research participant. As an educational researcher I would intervene to challenge and ultimately re-script this narrative, thereby transforming the self-perceptions of my participants. "The resulting re-authoring of the self has as a normative goal a single, unified, and coherent narrative that resides in the mind of a single individual" (Tennant, 2000, p. 93).

**An Enactive View of Self: My Doctoral Project**

My senses of self-certainty and narrative authority had started to unravel by the time I was ready to begin my doctoral research. I had already taken Carolyn's seminar once. The following year, in 1997, I re-entered her seminar again as a participant/inquirer to document evolving perceptions of embodied teaching and learning at the graduate level.

The reading materials used in the second seminar were different than those used the previous year. Two recently published books—physicist Fritjof Capra's (1996) *The Web of Life* and ecophilosopher David Abram's (1996) *The Spell of the Sensuous*—replaced other works, including Varela, Thompson, and Rosch's (1991) text. This shift in literature did not underserve but rather reinforced the enactive view of cognition introduced the first year. As noted
previously, there were several graduate students who chose to participate in the graduate class both years. Carolyn, one of two original instructors, continued teaching the course in its second year. All of us continued to frame our understandings of embodied cognition through an enactive frame of reference. Carolyn referred to course participants as *enactivists*.

While these connections ensured a sense of continuity with our prior learning, the introduction of new reading materials offered several distinct advantages. First, the new texts had a more accessible reading style. One of the difficulties with Varela, Thompson, and Rosch's (1991) text was that its scientific discourse was difficult to understand. Second, Capra's (1996) work offered an historical overview of the connection between scientific culture and the development of ecological and embodied forms of thought. Third, Capra's analytical writing style was balanced by the sensuous craft of David Abram (1996). The latter's writing is an example of enactive inquiry in action. Finally, both books challenged, complemented, and contextualized enactive theory, offering variable perspectives of embodiment as a dynamic, albeit complex orientation for academic inquiry and participation.

Drawing on my experience at the masters level, I decided to use a narrative research methodology again for my doctoral inquiry. However, my senses of narrative were now informed by an enactive view of perception. My field project in Carolyn's class was one of three data sources, the other two being critical readings of enactive literature and reflections on my personal development as an enactive teacher.

Precedents for using an enactive research methodology came from Haskell (2000), Haskell, Linds, and Ippolito (2002), and Reid (1996). Reid explains the significance of this methodology for him:

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Enactivism, as a methodology . . . addresses several levels of the activity of research. The level most familiar to most of us will be the interrelationship between researcher and data, in which we find ourselves learning new things within a context which is partially of our own creation. Enactivism can also be used to talk about the interrelationships in the research community, in which we as autopoetic [sic] researchers engage with other researchers . . . A third level is that of coemergent autopoetic [sic] ideas which live in the medium of our minds, and of which we are emergent phenomena (as the herd is of the antelope). (pp. 4-5)

Reid (1996, p. 5) distinguishes the interactive dynamics of enactive research from controlled, experimental forms of research. Haskell, Linds, and Ippolito (2002, ¶2) argue that when researcher partiality "is understood as an integral aspect of our methodology and data, the research and the researcher begin to share a mutually supportive relationship."

My senses of enactive methodology were reinforced by other embodied views of research, including the participatory inquiry paradigm of Heron and Reason (1997) and the views of participation associated with enactive researchers Davis (1996) as well as Sumara and Carson (1997). Heron and Reason's view of research is informed by their work with cooperative inquiry. Like Abram (1996), they emphasize sensory experience as a participatory form of perception that allows us to know and connect with other beings, both human and non-human. Significantly, the image they use to capture this dynamic interplay of bodies is dance:

Mind and the given cosmos are engaged in a cocreative dance, so that what emerges as reality is the fruit of an interaction of the given cosmos and the way mind engages with it. Mind actively
participates in the cosmos, and it is through this active participation that we meet what is Other. (Heron & Reason, p. 279)

Research design.

My use of an enactive research methodology was reinforced by the use of narrative methods. The importance of narrative as a site for learning in my doctoral studies influenced how I interacted with stories in my doctoral field project. Participants in this project had different participation options, all of which were voluntary. Seven out of 19 students, including Murray, Robyn, Jaime, Liz, Gayle, Lara, and Zoë as well as the course instructor, Carolyn, consented to two formal, tape-recorded interviews. Sample questions that I used for my interviews are located in Appendix A. Most students who were interviewed also participated in a focus group at the end of my field research.

Interview participants, including Carolyn, the course instructor, came from different backgrounds. She was Assistant Professor in a curriculum department. She had co-founded a new teacher education program and was especially interested in preservice education. Following the graduate seminar, she used enactive teaching methods in a science education course for student teachers. I attended this course as an additional point of reference for my own understandings of enactive pedagogy and curriculum.

Murray, Liz, Gayle, Lara, and Zoë were all doctoral students. All except Zoë had attended the graduate seminar twice. Like me, they had been fascinated by enactive conceptions of pedagogy and wanted to investigate the implications of enactive learning in their personal and professional lives as students, researchers, and educators. Jaime, Robyn, and Liz were the three magistral students in my group. The first two were interested in science education; Liz was interested in multicultural education. All interview participants except Murray had taught or were currently
teaching in the public education system. Some had also taught university courses as graduate assistants.

Another participation option in lieu of formal interviews was to participate in two short chats. Six additional seminar participants chose to participate in my study at this level. I spoke with each student for a few minutes and took hand-written notes. Those who participated in formal interviews were able to see and edit my transcripts. I followed a similar process for the chats. Students were again invited to read my hand-written comments and respond with feedback of their own.

The third and final participation option for my field project was for students to share their reflections in writing. I asked students to write about topics that I generated from my participation in the graduate seminar. The topics in the form of questions were related to my research goals. These mini-assignments were as much ways of sharing thinking in the moment, as they were formal research data.

An ethical review process was followed to ensure participant confidentiality in all three forms of participation. Pseudonyms were used to protect participant identities.

*Data collection: Researcher/researched interactions.*

What was fascinating in my field project was how my assumed senses of self were transformed through my interactions with others as well as my own shifting senses of subjectivity. The notion of story as a lens for revealing an inner self based on a coherent life history was disrupted and replaced by an enactive view of individuals as self-organizing systems. This view emphasized the self as an event, a co-emergent process, rather than an explicitly psychological or
sociological phenomenon. The enactive self was a complex configuration of sensibilities embodied by diverse ways of being.

Tennant (2000) describes this as the "relational self" (p. 96) The multiplicity of selves in human identity, he says, does not mean that adults are self-serving or deceitful, but that assumed senses of subjectivity function within the boundaries of particular relationships (Tennant, p. 96). This relational view of self reaffirmed the strong sense of kinship I had experienced in the graduate seminar with other course participants. I was constantly challenged to move beyond my own self-interests towards an I/Thou relationship with my research participants.

There were two important implications to this relationship. First, it required a different way of listening to and interacting with my research participants. By the end of the first interview I had become extremely sceptical with formal interview data as indications of embodied learning based on the representational sets of questions I had used to inquire into participants' self-perceptions. What I needed, I discovered, was a more conversational approach for the kind of re/searching I was undertaking. I was not the only participant who felt this way. Influenced by our views of enactive learning, other participants expressed a similar sentiment. There was much discussion about the significance of place and the role of the senses in the second round of research conversations.

This level of discussion highlighted another implication of co-emergent research. This was a need for ongoing negotiation about the purposes, processes, and outcomes of the research. This included discussion around participation options, including the location of research conversations and how different styles of learning might be integrated into this process. One of the dissertation narratives you will read in chapter 5 is based on my second interview with Murray. This encounter was especially significant because it disrupted the set of protocols I had in place for interviewing.
Murray was not the only one who enacted different senses of self or opted for alternative ways of embodying knowledge in the research setting. Gayle mapped out her understandings of embodied learning on a piece of paper. This process of negotiation was not an intellectual exercise but a form of self-organization that spoke to the ways in which people were complicit in particular ways of knowing, doing, and being.

Data analysis and interpretation.

I transcribed tape-recorded interviews and typed up notes from my chats. Transcripts were returned to participants to check and edit as necessary. All written data was then analyzed and categorized thematically. Themes were identified based on (a) their relationship to my two primary research questions, (b) their significance to field participants in terms of their perceptions of embodied teaching and learning, and (c) their ongoing resonance with my personal and professional development as an enactive teacher/researcher. The themes had to be self-standing yet work together to illustrate an enactive view of teaching. I read and re-read my transcripts many times to reflect this balance.

Insights.

The narratives I collected in Carolyn's class yielded different insights. They can be summarized in four key areas. First, there was a sense among the instructor and students that enactive teaching represented a new and exciting area of scholarship. Some students saw their participation in the course as being on the fringes, a reflection of this novelty. At least two other students mentioned that they had taken graduate courses that were similar in tone.

Second, my research revealed concern with barriers involved in enactive teaching and learning. There was much uncertainty about what enactive philosophy meant. Students compared their
struggles making sense of the theory with their struggles as graduate students entering into new roles and discourse communities. Other barriers included systemic problems with educational institutions. Students wondered how they would apply ideas from the course to their own classrooms later. Liz (personal communication, December 6, 1997) said that when she taught in the North she had to battle her administration to implement non-traditional and experiential forms of teaching in a public school:

I tried to create a very relaxing environment. Sometimes that's tough because I didn't tell the administration a lot of times what I was doing because I would not have been able to do it. I mean organize caribou hunts or go and build a fire and roast marshmallows in the middle of winter. This was during class time. [The students] learned more and had so much more fun than they have had since then. It says a lot when you let down your guard. They knew me very personally because I was very open with them. They were always interested in my life, what I did, and I shared things with them. Everyone just knew who everyone was and we just accepted everyone. I tried to create that environment. My students really learned a lot but it wasn't just textbook stuff.

I battled the administration a lot of times and then just started not telling them anything because I thought it was subversive. You have to do that: create an environment. Those are restraints schools put on teachers and for good reasons sometimes.

Another student, Peggy, reported much success integrating enactive theory into her elementary classroom. She said that she had undertaken many different activities that engaged students'
bodies and imaginations. She encouraged students to use visual imagery, touch and verbalize the names of geometric shapes in mathematics, and act out poems (Peggy, personal communication, November 12, 1997).

One of the barriers identified by Carolyn (personal communication, October 1, 1997) was the problem of evaluation: "When you are trying to teach in a very different way," she asked, "what kinds of activities do you do to [honour] the method that you're teaching? How do you evaluate that?"

Another barrier identified by students was their frustration with the limitations of language, using language to explain a set of ideas that resisted symbolic representation. Their concern mirrored Varela, Thompson, and Rosch's (1991) critique of cognitive realism.

A third area of emphasis was a commitment to critical deconstruction based on ecological thinking. There was a feeling that as long as graduate students continued interacting with one another, acting and reflecting on their learning, that answers to their questions and uncertainties would eventually emerge. This belief in ecological thinking included attention to the importance of place.

Fourth, my research indicated that Carolyn's class was a nurturing learning environment. Students indicated that the instructor was non-judgmental and accepting of different learning styles. Students expressed this sense of nurturing in terms of validating what they already believed or suspected education should be.
Data representation.

This was of the most challenging aspects of my research study, given that the field project was integrated with two other data sources. How would I integrate my personal experience and self-development with narratives from my readings and field study? In trying to honour and situate my experience as a key frame of reference for my inquiry, one of the problems I confronted was what Arthur L. Wilson and Elisabeth R. Hayes (2000) characterize as "the uncritical 'I'" (p. 24), that is, an uncritical acceptance of auto/biography as a primary source of evidence for educational inquiry. One of the comments I received from Dan, my co-supervisor, suggested that my writing sometimes reflected this tendency: "Be careful not to let your narrative wander, especially in terms of your own lived experiences. Just because you lived something doesn't mean that it is significant or, if it is, that its significance is apparent to the reader" (D. Pratt, personal communication, January 3, 2004). Neither a wholly scientific account of knowledge nor a wholly biographical one, Wilson and Hayes (2000) argue, offers sufficient grounds for "good professional practice" (p. 25).

Ultimately, I crafted a text that integrated diverse voices. I did not want to offer an explicitly subjective or objective view of enactive philosophy. Often the narratives that fascinated me contained many stories in one. I allowed myself to experience these texts from many different perspectives over time. Although each chapter has a focal point, the point widened to suggest multiple relationships. There was a self-organizing, participatory quality that not only influenced my writing, but one I hoped that the readers would follow when entering in and out of the dissertation.
Relreading Bodies of Inquiry: Enactive Research-as-Dance

In retrospect, my process of self-development as a researcher was one that challenged me to reconsider what it means to know and do research, to be a researcher. It asked me to practice what Grumet (1988a), addressing the work of Merleau-Ponty, describes as bodyreading:

The "body-subject" was Merleau-Ponty's term for human consciousness. He invented it to rescue thought from its exile to the vast, inaccessible reaches of idealism. And despite the great complexity of his analyses, to read his work is to feel ourselves come home, to gather up our politics, our psychology, our history, our literature, and our science and to carry them like this week's groceries, over the snowbank that blocks the driveway, up the stairs, through the storm door, and into the house—to the place where we live. (Grumet, p. 129)

Bringing home my body meant reclaiming it in the messiness of classroom experience, acknowledging my shifting senses of identity, and trusting that something vital, something generative and seductive, would emerge from chaos and uncertainty. It also meant developing a relational view of self that would afford a holistic view of my research interactions.

As I continued developing an enactive view of research the image of dance kept surfacing. It is an image that I also started noticing in my readings. In a poem entitled Among School Children, William Butler Yeats asks how we can distinguish dancers from their dances (Finneran, 1989, p. 217). His question emphasizes a co-emergent view of knowing subjects and objects of inquiry. To understand perception as a participatory phenomenon, however, it is not only important to see the dancer/dance relationship in others; we also need to see ourselves as dancers.
References to dance are also common among enactive educators and philosophers. Varela, Thompson, and Rosch (1991) use the term “cellular choreographies” (p. 189) as part of a larger discussion about evolution to emphasize the constraints as well as possibilities that come into play as organisms evolve to know and connect with their environments. Davis (1996, p. 10) refers to choreography in terms of interactions among bodies. I have already cited Heron and Reason's (1997) view of how the mind participates in the universe as a "cocreative dance" (p. 277).

Dancing in enactive terms highlights a co-relational view of research inquiry. This inquiry invites possibilities for self-transformation:

Dancing in space and time and actions and shapes, I/we invent and reinvent ourselves in relation to others. When I’m dancing, my attention can be on everyone, or on only one. We can organise our flow of movement, or let it be free like the autumn wind. Gently or strongly, from suddenly to ‘lots of time,’ we/I can dance alone or with others. (Emerson, 2001)

I associate dance with enactive forms of research because of its co-emergent view of the bodymind connection and its generative quality. Dancing is a dynamic activity. As researchers and teachers, we are constantly reinventing ourselves through our relationships with others and therefore reconstituting our senses of the world.
Elements of The Dance

There are three particular dance qualities that have challenged my assumed senses of self as an enactive researcher. Each carries particular implications for narrative and other research methodologies.

Pattern.

The first characteristic is the relational quality of dance. This sense of relationship applies to my relationships with research participants as well as the dissertation and other research texts. This relational emphasis is important because it suggests a need for enactive researchers to be attentive to pattern. Anthropologist and environmental philosopher Gregory Bateson (1979) whose writings anticipate enactive forms of thought urges us to be attentive to "the pattern which connects" (p. 8). This included patterns that connect human beings to nature. It also includes patterns in narrative inquiry. To dwell in stories is to re/discover our sense of place with others in a complex configuration of lives lived and imagined.

Gregory Bateson (1979) described a story as "a little knot or complex of that species of connectedness which we call relevance" (p. 14). As an enactive researcher I am constantly reassessing which narrative elements matter and why. This is not a mechanical exercise but a dynamic form of choreography:

We have been trained to think of patterns, with the exception of those of music, as fixed affairs . . . . In truth, the right way to begin to think about the pattern which connects is to think of its as primarily (whatever that means) a dance of interacting parts and only secondarily pegged down by various sorts of physical limits.
and by those limits which organisms characteristically impose. (G. Bateson, pp. 13-14)

As an enactive researcher it is important to shift places in order to develop a relational view of self and others. It is equally important to let the dance emerge from experience.

*Peripheral vision.*

If pattern is the first element of importance, attention to different modes of sensory perception is the second. These include experiential and reflective, intuitive and emotional, rational and analytic forms of inquiry. According to Mary Catherine Bateson (1994), we live with multiple individual modes of perception that "resonate with the many layers of vision within any single cultural tradition, the mythic and the multiply metaphorical, the sacred and the invisibly empirical, the insights of the laboratory and those of poetry and sleep" (p. 12).

One of the most important modes of sensory perception announced by the title of Mary Catherine Bateson's (1994) work is that of peripheral perception. We are not always consciously aware of our learning in a diverse world, she says; often it is embedded in our daily activities that beckon us to attend, shaping our emerging senses of subjectivity. As an enactive researcher-turned-dancer I am constantly looking behind, around, and beside me, recognizing that I cannot see the whole dance floor but waiting for a sliver of activity to emerge at the corner of my eye, something that will animate my perception and draw me into relationship with those around me.

Early one morning as I was wrestling with how to choreograph diverse research voices in my dissertation, something unexpected, something wonder-full happened that taught me about peripheral vision. I was standing in a school gymnasium surrounded by several classes of
Intermediate students rehearsing for an upcoming Christmas concert. All of the classes had been combined to form a choir. I was one of several teachers on hand to supervise students.

I watched and listened as young voices began singing, inhaling air, expanding their lungs, and embodying the fullness of sounds around them. Students were familiar with their first number and confident singing. Their second piece, however, was more complex. Its nonsensical lyrics made the rhythm difficult to follow. Within seconds the choir had disintegrated into fragmented groups of voices each singing at different speeds.

The conductor asked the group to stay with the beat by following the flow of her hands. "How can we watch you if we are supposed to be reading the lyrics?" one young girl interjected.

*Poignant pause.*

"By using your peripheral vision." The director asked the girl posing the question to reverse roles with her. Now the child was the conductor and the adult a child. While the student moved her hands the adult at the front of the gymnasium read the song's lyrics and, using peripheral vision, mimicked the student's rhythm without looking directly at her. Other students in the group watched, mystified, intrigued. "Do you see how it works?" the director inquired. Within seconds all voices in the choir started moving into unison, engaging rhythm by relying on a sense that had previously escaped their awareness.

My senses of peripheral vision as a researcher are still developing. Like an untrained singer, I am learning to read the notes in and around my body by training my vision toward the lyrics and searching for the choirmaster. I am learning that to be an enactive researcher is to feel the rhythms of my environment through the ebb and flow of my voice rising and falling with other voices in space and time.
The third and final quality of dance that animates my understandings of educational research is a derivative of the first two: a love of improvisation. An enactive view of research challenges our abilities, individually and collectively, to know the world around us with certainty. The best we can do is improvise rather than apply foundational views of knowledge to regulate our sense of place in the world. This improvisational quality is consistent with the notion of *autopoiesis*, that is, self-organization. A view of dance calls us to be mindful of research as poetry-in-motion as well as a craft that demands disciplined skill and careful attention to the structure of an inquiry. The improvisational quality of dance means that we cannot predict how our research senses of self will be transformed by a particular inquiry. It invites us to reinvent ourselves by risking new ways of being.

These three dance qualities also offer a deeper understanding of participatory perception. Dreyfus and Dreyfus (1999) highlight this understanding in an essay on embodiment. Summarizing the thinking of Maurice Merleau-Ponty and J. J. Gibson, they identify three views of embodiment based on (a) innate bodily structures that determine what individuals can and cannot do, (b) general skills, and (c) cultural skills (Dreyfus & Dreyfus, 1999, pp. 103-104). Dreyfus and Dreyfus relate these frames of reference to Merleau-Ponty's notion of intentional arc and maximum grip:

The intentional arc names the tight connection between body and world, viz. that, as the active body acquires skills, those skills are "stored," not as representations in the mind, but as dispositions to respond to the solicitations of situations in the world. Maximum grip names the body's tendency to refine its discriminations and to respond to solicitations in such a way as to bring the current
situation closer to the optimal gestalt that the skilled agent has learned to expect. (Dreyfus & Dreyfus, p. 103)

Read this quote again. This time think of dancers and consider how the contexts in which they perform invite them to develop skill, passion, and sensitivity to their art.

*Dancing Passionately, Playfully, Poetically*

Imagine for a moment a ballroom dance couple caught in the spellbinding magic of their embrace, enlivened by bodily rhythms, flamboyant music, and pulsating energies. It is easy to get caught up in their movements, to feel their bodies . . .

*Flying . . . Flowing . . . Falling through air*
*Bending Swooping Strutting with flare.*

*Twisting . . . Twirling . . . Leaving firm ground*
*Tilting Lifting Sensing each sound.*

*Graceful . . . playful . . . Look at them go*
*Right foot left foot heel and toe.*

*Foxtrot . . . Disco . . . Cha-cha this time!*
*Two tango bodies criss-crossing lines.*

*Graceful . . . Playful . . . Look at them go!*
*Right foot left foot heel and toe.*
I am overcome, carried by the dancers into another world yet aware of the world around me. My whole being feels as if it has been transformed and energized. I want to swing my arms, raise my shoulders, and click my heels. What is it about some performances that seem to captivate our imagination, drawing us into an unfolding spectacle that appears at once magical and effortless?

I cannot deconstruct this dance, yet I feel it beckoning, opening a path that is transforming my sense of participation in the world. Although my head hangs heavy with cotton, my body will not be weighted down. Words stimulate my spine and spirit as well as my brain. Bending . . . buckling . . . flying . . . flowing . . . these are movements that invite me to perform a different kind of inquiry en route to the university classroom. These are the gestures that call me to be a teacher. This is where I find myself as a dancer, not because it is my chosen method of inquiry, but because the dissertation calls me to be here and now with this body, this text that is university teaching. It is a performance that bamboozles and bedazzles my senses and imagination. But if I stay with it, my hope is that the dance will make me a more responsive, more responsible teacher/researcher and human being. I do not know where the dance will take me, only that I am called to compose and learn from the path that is before me.

This is the image that inspires my view of enactive research and transforms my senses of self. Dancing is sometimes a great effort amid my multiple research roles and commitments. Often my body flinches and falters at the demands placed on it. Yet infused with the breath of life, it keeps moving. It dances through peril and possibility, stress and release. As educational researchers, we are the dances we perform. Nothing more. Nothing less. The w/holes of the dance engage my being.
CHAPTER 3

Stepping Into Teaching:
Developing An Enactive Sense of Self
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Developing An Enactive Sense of Self

For me, what stands out about enactivism is the bringing back of the sense of being and the sense of presence in the world and the sense of interaction between the environment and the person—the environment being animate or inanimate. That kind of dynamic I haven't seen in any other theories of teaching and learning. You can have the best lesson plan on paper but you have no idea what's going to happen. It's very interesting to me how it's made me prepare. I prepare but I'm also trying to be very adaptable.

( Carolyn, personal communication, October 1, 1997)

Perhaps, like me, you are a doctoral student preparing to become a future faculty member. Or, you may be an experienced higher educator. Whatever your role you are interested in and committed to becoming an enactive teacher. But how will you put this commitment into action?

This question underscores the importance of starting points in higher education. Whatever experience we bring to our professional roles we need to start somewhere. This is more than a truism. It emphasizes the need for ecological thinking since relationships can only emerge from a place or structure that allows them to exit as part of an ecosystem. This was an important focus of enactive philosophy in Carolyn's graduate class: "For me, enactivism is connections: connections to our landscape, connections to each other and connections to the environment in whatever sense that is to the individual" (Liz, personal communication, December 6, 1997). Another research participant echoed this sentiment:
Enactivism is a way of viewing learning from an ecological perspective, a scientific theory of life and living systems that can be used by educators to enrich their understanding of life and schooling within living systems. [It emphasizes] how schooling should not be considered a separate part of life. (Zoë, personal communication, October 6, 1997)

Starting points also reveal our actions, intentions, and beliefs, that is, commitments that give direction and purpose to instructional perspectives and identities. How we enter into teaching discloses what is important for us in the classroom. Our starts mirror personal hopes, dreams, and aspirations but they also play a key social function. Ronald M. Cervero and Arthur L. Wilson (1993) make this connection when they argue that “adult educators’ planning practice matters because the educational programs they construct will make the world a different place. Therein lies their central responsibility, namely, what kind of world will be made through their practices” (p. 60)?

Yet the very idea of a starting point troubles relational and embodied understandings of cognition because a point suggests an instrumental, often forceful course of action to impose order on an outside world rather than living thoughtfully in relationship with it. Teaching, like cooking, is assumed to be a prescriptive activity that will unfold according to a predetermined course of action if a recipe is followed precisely. This is how I learned to become a public school teacher. I was given recipes that included what to teach, how to structure lessons, how to manage student behaviour, and even what to wear. My classroom participation and identity were scripted before I entered the classroom and while I continued learning how to teach.

Even today the question Where to start? is often heard, understood, and accepted by many faculty as What do I need to do to prepare for my next teaching assignment? It is a question that
may be voiced reflectively or in the heat of the moment. And in elementary as well as higher education classrooms it is associated with busy, sometimes-frenzied skirmishes and routines designed to ensure that teachers really will be ready to start fresh off the mark. Every year as the start of the school year approaches alarm bells ring and the question What should I do this term? sets off another round of discussions about instructional strategies, resources, and programs designed to take students and instructors from one point in time to another.

I recall transferring this sense of planning into my first university teaching assignment with adult education students. Drawing on my background as an elementary teacher, I went to great lengths to prepare a comprehensive course syllabus complete with exhaustive directions for students. This was partly a response to a novel situation; I had never taught at the postsecondary level. But it also reflected a much deeper view of pedagogy and curriculum as forms of inquiry to be mastered, a representational view of cognition. Bowers and Flinders (1990) refer to this as a managerial view of teaching; effective managers, they note, "must conceptualize in advance the behaviors expected during each type of school activity" (p. 3). My intention at the university level was to model instructional readiness by anticipating what I needed to do in order to ensure that my course would proceed smoothly and be as successful as possible.

This view of preparation is troubling on several accounts. First, it attributes academic success to the instrumental interventions of the planning agent, the teacher, without attending to the importance of instructional context, the relational dynamics and experiences that influence how, when, and where adults learn. Pratt's (1998, pp. 15-16) description of a 3-day instructional workshop reflects some of the problems with decontextualized, skill-based views of teaching. The workshop he attended failed to acknowledge participant values and beliefs and to problematize effective views of instruction. That is not to suggest that teachers should not plan or that extensive consideration should not be given to skills but, rather, to emphasize a need for
complex understandings of formal learning and instructional cultures. As educators, we need to understand how cultures shape teaching as much as teaching shapes learning.

This is evident in my own development. Although being prepared is something that I value personally, this value has been doggedly reinforced by cultures of professional accountability in public education that continue to demand more from teachers in the form of outcome-based planning, performance standards, standardized testing, and reporting. It is naïve to assume that instructional preparation is wholly self-determined. Different teachers in my study noted tensions between curriculum-as-plan and curriculum-as-lived. Peggy (personal communication, November 12, 1997) noted how Ministry of Education resources use terms such as *child-centred* and *focus on the learner* while upholding the authority and centrality of the adult teacher. Views of instructional agency must balance personal ways of being with social, political, and organizational demand structures.

It is important to understand this connection when re-evaluating our own aspirations and journeys as teachers. Just because we become critically self-aware of our own practices does not mean that we are capable of transforming institutional cultures based on systemic and hierarchical power imbalances:

If we believe in critical reflection, we must give full attention to its dangers as well as its promises. We must prepare people tactically for the political struggles involved in changing colleagues and systems. In particular, we must acknowledge and research the cultural barriers to this process that exist in academe. These barriers mostly arise from reward systems that emphasize the "publish or perish syndrome," that punish the public disclosure of
private errors, and that result in the privatization of practice.

(Brookfield, 1995, p. xiii)

A second difficulty with instrumental views of planning is that they follow a sequential timeframe corresponding to the academic calendar. Efforts to regulate bodies in time as well as space reflect prescriptive understandings of teaching that are inconsistent with an ecological vision of renewal (Goodlad, 1999, p. 574). "Renewal is not about a point in time; it is about all points in time—it is about continuous, critical inquiry into current practices and principled innovation that might improve education" (Sirotnik, 1999, p. 608). This is as applicable to instructional preparation as it is to other dimensions of classroom participation.

Perhaps the most serious difficulty of all with a fresh-starts approach to education is that it is reductionistic—much like the black-box model of teaching identified by Aoki (1992a, p. 18). Like the process of industrial production education is assumed to be outcome-oriented: what you put in is what you get out. The metaphor of a black box is based on a view of classrooms as closed systems. It says nothing of the struggles and chaos that characterize day-to-day life in classrooms, thereby discounting how instructional environments shift through participants' interactions. The black box metaphor also fails to recognize that what teachers put into planning each year is not, enactively speaking, a new source of input but an extension of what and how certain individuals planned in previous years.

Although instrumental views of planning are problematic, asking where, when, and how teaching starts is not a foolish question. There are two compelling reasons for believing otherwise. The first relates to the status of teaching. Unlike public schooling, there are often no requirements for faculty to be formally certified as teachers, although other evidence of instructional proficiency may be expected before someone is hired. In order for teaching to remain a legitimate form of scholarship we need to critically and creatively reassess how adults become teachers and where
this process begins. Boyer's (1990) study of higher education reflects this level of analysis by injecting new energy into "the tired old teaching versus research debate and define, in more creative ways, what it means to be a scholar" (p. xii). The holistic quality of his thinking is consistent with a creative vision of scholarship.

Part of this re-envisioning means understanding who teachers are as individuals. A second reason to ask where teaching starts is because this question supports a relational view of self. At the beginning of the dissertation I highlighted two primary orientations for enactive teaching: co-learning and facilitation. However, these roles also subsume other roles. My focus in this chapter is on teachers as planners. Self-perceived roles and identities will influence how instructors plan. These are not fixed but in constant flux.

Graduate students in my field project also associated enactive philosophy with different senses of identity. When they shared their perceptions of embodied learning they were not only reflecting on their personal development but were attributing different senses of self to enactive teachers. These attributions were often expressed according to role descriptors such as co-learner or mentor.

Possibilities for teachers to assume different roles will have dramatic implications for how they plan. Enactive planning is not something that occurs outside time before a course; it is always unfolding. This is consistent with Parker's (1997) view of reflective teaching:

To state, first, the obvious, reflective teaching involves reflecting on one's teaching. This reflection can take place before the event of teaching and manifest itself as planning, after the event as evaluation and simultaneous to the teaching as reflection in action.
This reflective, embodied teaching cycle is a self-organizing system that is constantly renewing and regenerating the self. Every lesson, every thought, every experience is a new beginning. This is as important when instructors are outside the classroom as when they are in it. Even when they are not actively teaching, they are still stepping in and out of classrooms through their embodied actions and perceptions. Understanding starting points at one level of their being will help teachers to understand how their manner of living transforms their senses of identity.

Instead of asking What do I need to do to prepare my lessons? I have started asking how I might read and reread my body more mindfully in order to nurture an enactive sense of self. What connections are there between my embodied understandings of the world and the relationships that I invite through teaching? How can I balance what I do to get ready for teaching within complex relationships that identify my personal senses of being and connect me to others? These questions guide me as I prepare for an instructional role at the postsecondary level.

They are also questions that highlight different aims, purposes, and sensibilities for higher education teaching. Enactive philosophy emphasizes that our knowing, being, and doing are interconnected; they dance in the same body. Who we are and what we know and do are complexly intertwined. As well as developing instructional units, enactive philosophy invites us to look at how we read, engage, and interrupt personal and collective ways of being as embodied frames of reference for teaching.

In this chapter, I show how the development of enactive teachers, like researchers, emerges from understanding and contesting familiar habits of perception based on embodied ways of being. I contextualize my inquiry by sharing a personal narrative of experience in one of Carolyn's
classes before focusing on three sources of information that can facilitate changes in teachers' understandings of themselves as enactive educators.

**Trusting Bodily Intuition as A Starting Point for Teaching:**

**A Personal Learning Tale**

One summer after I had completed my doctoral field project I decided to take a science education course with Carolyn. Most participants were teacher education students completing their program. A few such as myself were experienced instructors.

The primary purpose of the course was to explore intuitive ways of knowing based on sensory forms of participation. Instead of using scientific language and concepts to explain natural phenomena, participants were asked to experience embodied knowing through lived forms of experience, including bodily memories. Enactive inquiry interrupts reified views of teaching and reminds us that our ability to think is possible because of the ways we move and live in the world. Immersing students in activity is one way to offer them a prereflective sense of experience before developing abstract views of knowledge.

This learning sequence from phenomenal experience to reflective discourse was a pattern in the two enactive classes I attended with Carolyn: the graduate education seminar on embodied learning and the science education course for student teachers about to finish their program. Classes in the first instance were planned around outdoor activities, including seminar sessions sitting on quiet, aesthetic areas of campus, dramatic re-enactments of personal experience, performative readings of assigned literature, phenomenological forms of writing, drawing, and other activities. Teacher education activities included improvisational drama, skating, billiards, swinging, and kite-making. Experiential activities were used as a framework for developing
personal theories of inquiry. Class activities and assignments were also directed towards preparing adults to teach learners at different stages of development.

One bright, sunny day Carolyn invited teacher education students to walk with her to a nearby schoolyard. The purpose of the trip was to explore swinging as an embodied phenomenon.

Once we arrived at our destination we arranged ourselves in small groups corresponding to the available number of swings. As we settled in, students started taking turns swinging. Others watched and studied what was happening. Intuitively, they began using their hands and words to illustrate and describe what they were seeing. These bodily gestures often turned into questions. "What forces create the pumping movement need to swing?" someone asked.

"What role does gravity play?" another inquired.

With each question new theories of swinging were generated. The formulation of theories-in-action inspired students to experiment with different ways of swinging. Some learners twisted the chains they were holding. Some pumped as hard as they could in order to reach great heights. And some jumped off the swings in mid-air. These behaviours were not intended as antics but as ways of disrupting students' thinking by altering their relationships with their experience.

We hovered around the schoolyard for almost an hour trying to understand the mechanics of swinging. There was a leisurely as well as reflective tenor to our conversation. I enjoyed sitting on a swing again and thinking back to the days when swinging was a regular part of my life. Revisiting that experience with a group of adults made this process of recollection a community activity.
Trying to understand what had happened, however, perturbed my thinking and challenged my abilities to find a scientific explanation for swinging. I returned home later that day and ended up talking about my field trip with another adult who was visiting. I recounted what had taken place on the playground. "Did you ever realize," I queried, "how complex swinging is?" "Well, you know," she countered, "swinging really is very simple."

Her remarks were not meant to invalidate mine. My friend was offering another point of view. For many years I accepted this difference as a matter of deductive logic; each of us was simply formulating a different explanation for what had happened. But just this week, I have started to realize that our contrasting explanations were themselves reflective of our embodied histories. We related to the experience of swinging differently because our views of that experience were based on different bodily memories. Our actions and our memories of those actions cospecified one another. Our language and embodied senses of identity as swingers were coterminous with our experiences many years ago.

Canadian writer Margaret Atwood illustrates this embodied relationship in one of her poems, *Apple Jelly* (Bowering, 1983, p. 16). She shows how we become attached to experiences that shape our senses of being. In her writing Atwood asks why we spend long hours picking apples and bending over a stove to make jelly. The reason, she proposes, is because we embody the taste of what we do. We become the activities that constitute our way of being as they become us.

This is the seductive pull of the dance image invoked by Yeats (Finneran, 1989, p. 217). Although he focuses on the dancer and her dance, his words apply to other performing artists, including teachers, researchers, and swingers. Whatever our roles, we become part of the situations we taste, feel, and embrace through our sensory imaginations. Awareness of this co-
emergent relationship is essential for enactive teaching. It may also reflect what students find relevant in their learning:

I do my best work when it's personally relevant to me either as a woman or when I'm trying to find the answer to something that's always bothered me or interested me, to link it to my own experiences. I'm sure a lot of people are like that in the enactivism class. Their learning isn't separate from who they are as a person.
(Zoë, personal communication, October 6, 1997)

Where might teachers turn to develop a better understanding of this connection in order to enter more meaningfully into the classroom? Intuition is one source of knowledge but they also need to critically reflect on teaching before, during, and after their encounters with students.

There are three frames of reference that have informed my own development as an enactive teacher and shifted my senses of starting points. These frames overlap with three of four areas proposed by Brookfield (1995, p. xiii): (a) self-inquiry, that is, autobiography; (b) classroom inquiry, that is, feedback from students; and (c) feedback from other colleagues and instructors. Brookfield includes a fourth frame, literature, but given the attention I devote to literature elsewhere in the dissertation, I have excluded it from this chapter. The three areas I will analyze are not separate sources of knowledge, but do raise particular questions, challenges, and possibilities for how we enter into classrooms and become the kinds of teachers we desire to be.
Learning From Ourselves: Autobiography

It may seem self-evident that if we are going to change who we are we need to understand where we have come from and where we would like to be. This is not always the case. Autobiography is often underestimated as a critical source of self-reflection and dismissed as "hopelessly subjective and impressionistic" (Brookfield, 1995, p. 31). Yet personal experience is central to classroom participation. We teach who we are and who we would like to be. In order to grow as a teacher we need to understand how our lives have shaped our actions, intentions, and beliefs. "Recalling emotionally charged dimensions of our autobiographies as learners helps us understand why we gravitate toward certain ways of doing things and why we avoid certain others" (Brookfield, p. 32). We can then decide whether or not these actions are consistent with our instructional goals and beliefs.

Critical analysis of personal experience also invites different ways of seeing and experiencing the world. One reason autobiographical reflection may be so engaging is because it facilitates dialogic thinking. A striking example of this comes from adult educator Paulo Freire (1997, pp. 29-42) who enters into a discussion of education by reflecting on his relationships with his backyard. He characterizes embodied knowing as a quality of being with (Freire, p. 29). Referring to his interactions with his childhood, he says, "To see again what had already been seen before always implies seeing angles that were not perceived before. Thus, a posterior view of the world can be done in a more critical, less naïve, and more rigorous way" (Freire, p. 38). As I read this I cannot help but think of the discussion in my last chapter on peripheral vision. We need to look back and forth in time as well as space to engage the complexities of our embodied participation in the world as teachers and human beings.

Autobiographical reflection situates educational participation within a specific context of inquiry and location. It engages ecological thinking, in other words. Evidence of this appears in oral,
indigenous cultures such as the Apache culture, Abram (1996) says, where the speaking of
names effects a "direct sensorial bond between Apache persons and places . . . not so much from
the names themselves but from the nourishing power of the actual locations to which the names
draw those who speak them" (p. 155). Freire (1997, p. 43) criticizes postmodernists for failing to
recognize the embodied relations that give to knowledge, in particular, the relationship between
text and context. His comments resonate with the circular, interconnected view of action and

This perspective is implicit in mindful views of curriculum and instruction. Authentic teaching,
Aoki (1992a) says, is "a mindful watching overflowing from the good in the situation that the
good teacher sees. In this sense, good teachers are more than they do; they are the teaching" (p.
26). Solloway (1999), using a term from Kessler (1991), identifies mindfulness with teaching
presence:

Teaching presence is a way of opening to the complexity of
classroom practice that both dissolves and affirms boundaries of
untidy loose ends that are never fully caught up. These
complexities are the messy mismatches between student desires,
needs, fantasies and those of the teacher. (Solloway, p. 27)

Teaching presence speaks to how we bring our bodies into the classroom to "the place where we

Two years ago I encouraged a group of teacher education students to prepare for teaching by
considering their autobiographies as entry points into their profession. I was invited to participate
in web-based discussions with a group of student teachers. The focus of our conversation was
enactive teaching. Many students, not unexpectedly, wanted to know what they could do to be
effective teachers. Some asked how to use principles of enactive teaching in traditional schools.

This is an excerpt from one of my responses:

As teachers, we need to start with who we are, where we are, and what we have in terms of students, colleagues, parents of students, and administrators. If you are hired in a traditional school there will be certain ways of being expected of you. There will be opportunities for creating other ways of being in this environment, assuming that it is not oppressive. Simply by being who you are and by being aware of other possibilities, you will begin to change the cultures that you are part of. (B. Hocking, personal communication, November 1, 2002)

One argument I was trying to make was that generic, skill-based views of teaching emphasize clean, uncomplicated perspectives of classroom participation. To privilege ways of doing above ways of being would be to devalue the complex bodies we inhabit and to reduce teaching to a set of prescriptive actions and outcomes.

Critical reflection on autobiography challenges us to honour the exquisite sensibilities each of us brings to teaching. Aoki and Shamsher (1993, p. 1) invite us to reconnect with our callings as teachers. The call to teach is like a song that permeates every fibre of one's being. "Like a fugue we hear from afar, the transition from where we are to where we shall be is ruled by a few chords that play over and over again, everywhere" (Varela, 1987, p. 48). How we hear the fugue will determine how we respond to the call of teaching and embody it in our practices as teacher/researchers.
Enactive teaching challenges us to read our bodies mindfully to engage relationships of personal importance. This is reflected in Atwood's poem (Bowering, 1983, p. 16). The significance of apple jelly lies tangled in threads of memory, nuance, and emotion that we attribute to our experience under the orchard tree or over a boiling stove. Our relationships remind us where we once were, where we hope to be, and where we are now. They are our callings.

**Learning From Our Students**

As important as autobiography is for self-reflection, it has its limitations. One of the learning activities I used with adult learners in the undergraduate course I instructed was journal writing. Although many of them eagerly embraced this activity, one or two felt uncomfortable being asked to reflect on their personal history as a frame of reference for their development as teachers. I also found this to be the case in small-group activities and class discussions. Bringing personal narratives of experience into class sometimes creates concerns around safety and disclosure and needs to be handled thoughtfully.

Brookfield (1995) says that when we use self-reflective methods of inquiry "we can never completely avoid the risks of denial and distortion. We can never know just how much we're cooking the data of our memories and experience to produce images and renditions that show us off to good effect" (p. 33). This is another challenge working with autobiography in adult and higher education. Notwithstanding this challenge, Brookfield says that he finds autobiographical reflection to be "a good starting point for my own efforts to see more clearly" (p. 33). Throughout much of my doctoral studies I have kept one kind of journal or another to document key areas of inquiry and reflect on my personal development as a teacher and graduate student. Whether or not I read and analyze all of this writing, the process I follow plays a key role in my evolving senses of subjectivity.
When I interviewed students for my field project many willingly disclosed autobiographical
details of their lives. Many also used personal experience as a starting point for their assignments
in Carolyn's class. Some autobiographical reflection occurred during the seminar, but was not a
formal requirement or expectation. The issue of how much Carolyn might and should self-
disclose was a topic of discussion for a couple of students. One noted that enactive teachers need
to make themselves vulnerable in order to relate to what students are experiencing as learners.
Jaime (personal communication, December 10, 1997), another interview participant, said that in
order for enactive learning to unfold "you have to have an environment where as a learner you
don't feel threatened. Otherwise, I mean, you could very easily sit in the course and not say
anything for 10 weeks." Discussions around autobiography raised questions around interpersonal
communication, role boundaries, disclosure, and teachers as co-learners versus facilitators.

A second source of knowledge that will guide us toward an enactive view of ourselves as
teachers is the feedback we receive from students. One of my challenges as a teaching assistant
was trying to develop an inviting learning community while knowing at the end of the term that I
would be evaluated on my instructional effectiveness. After reading students' comments about
my time management skills and slow rate of speaking, I felt the sting of those evaluations. I
know other teaching assistants who were reluctant to teach after experiencing negative
evaluations. Yet, feedback from multiple sources, including students is essential for rethinking
instructional actions, intentions, and beliefs. Their value should not be minimized or overstated,
but used to question and strengthen our development as teachers and our ongoing reassessments
of good teaching.

A more immediate source of instructional feedback comes from our ongoing interactions with
students. During my first interview with Carolyn she identified enactive teaching with hooks'
(1994) view of engaged pedagogy. Carolyn (personal communication, October 1, 1997) said that
developing an engaging learning environment means taking risks, being passionate, and integrating creative expression into teaching:

*I feel like I'm more of a facilitator. I feel if I work on the environment, if I can work on stimulating activities, if I can make it a safe climate, if I can take some risks so that [students] take some risks, that's my job as a teacher. And helping them with what I know.*

In her second interview Carolyn elaborated on her role as a co-learner by focusing on being with students in the moment in order to teach with presence in fluid, shape-shifting environments. I asked her to elaborate on the qualities needed to be an enactive teacher, given that this was a primary focus of the graduate seminar she was teaching. A snapshot of our February 17, 1998, conversation follows:

**Brent:** I'll begin by asking you what kinds of possibilities do you think an enactivist framework offers those who are becoming teachers. How does enactivism give support to that process?

**Carolyn:** My experience of a good teacher would be somebody who can improvise well in a situation. Certainly, we want to bring some structure and goals and outcomes to our teaching but [we also have] to consider the children, their responses and their inquiries. Enactivism has a very fluid way of thinking about coming to know the world and being in the world. I think that as a teacher what I have learned is developing a repertoire of things that work but knowing the moment when to bring particular actions that are appropriate in relation to what is going on in the classroom [is important].
**Brent:** I heard you begin with the word improvisation and then break it down. One of the things that I heard was being in the moment. It's important for teachers to be right there, to have a sense of immediacy. Another element that I heard was flexibility and finally, creativity. Those are all different aspects for you of improvisation. Is one element more important than another?

**Carolyn:** They work together in a sense. I'm trying to think about the whole environment when I'm teaching—as difficult as that may seem. Creativity to me is a process; it's not a finished product. In order to be creative I think you have to be flexible, so these things are somewhat related. For me I see my creativity comes alive when I can identify what I'm teaching. That's where I feel like I'm enacting creativity. I like the spontaneity of teaching and that's where I find it to be very creative. The feedback I get is the engagement of the students that I am working with. When they are engaged I know that something is working that I've helped to create, some space that we can both engage. If I'm not flexible I don't think creativity works very well. The improvisation is that I'm there in the moment. I don't know that I do that every minute that I'm teaching but my most creative times I know that I'm really there.

**Brent:** So, when you think of yourself as a teacher bringing forth new worlds, what stands out for you?

**Carolyn:** I think that the bringing forth is what emerges. I can't predict ahead of time what's going to happen when I have a particular curriculum or a particular idea with students. I do know patterns and I know trends. I know what's worked with me in the past—coming up with activities that seemed to work well with many people—but I don't know what will be offered by the student. I never know ahead of time what that's going to be. What happens sometimes is I learn something from students that I could never have imagined. There's as much for me to gain in good teaching as there is for students because I learn and I put it into my repertoire.
Students who experienced this co-evolving interplay of actions, thoughts, and feelings echoed this description of teaching as improvisation. Zoë (personal communication, December 10, 1997), for example, said:

*Carolyn doesn't lead the class in a typical chalk-and-talk kind of way. I think that often it's very hard to let go of power in that way. I'm not saying that Carolyn doesn't have power, but she's expressing it in a different way. I think that it's hard for teachers to let go of control, being the leader, the one who always leads discussions and fields questions. That takes courage. At first glance it might look like it just happened, but to actually sit back and let students direct class or the conversation, to take the curriculum in a certain way isn't an [easy] thing.*

Liz (personal communication, December 6, 1997), one of the graduate students I interviewed, said that Carolyn gave her the opportunity to learn from other students by creating an inclusive learning environment.

There was an impending sense among participants that something magical was about to happen through their interactions. Lara identified this engaged quality of learning with some of her graduate-school experience. As I had with Carolyn, I asked Lara to elaborate on her views of good teachers in order to understand the sense of enthusiasm she experienced for particular classes and her doctoral committee. This is an excerpt from our September 30, 1997 conversation:
Brent: If we stick with the doctoral program, are there certain things that stand out for you about your instructors?

Lara: So many things. The main ones [are that they] are all humanitarians, have backgrounds where there's also a depth to their scholarly beings. It's not just that they're open, but I sense this incredible depth perhaps because of where they've been. And also how they write themselves, going into third space again: deep self/written self. The openness, but more than just openness, it's that ability to take us from somewhere to somewhere else.

Brent: I haven't heard that term deep self/written self before. What does it mean?

Lara: Those terms have been coined by Homi Bhabha who's a postcolonial writer. He speaks of the deep self where you go down deep and you're searching for truth and the written self. One is vertical: the deep self. The written self is horizontal. You're working within those two sites.

I think the people now that I'm drawn to, as instructors, as professors, are people who are thinking in those third spaces. I find it difficult now to go back to Discourse A. That is the vertical discourse where you're using the scientific method, the empirical method, and you're searching for a truth and if you go the right way and you use the right instruments you'll find it. It's very difficult to engage that kind of dialogue.

Notice how Lara frames her relationships with instructors as an interactive dynamic that constantly challenges her unfolding senses of self. Like Carolyn's, Lara's comments evoke a strong sense of passion and connection with other scholars.
Comments from participants in my field study paint a dynamic sense of student/teacher interactions. These shifting interactions are consistent with an improvisational view of performance. The lure of the performance, however, should not undermine the need for critical reflection between classes. Carolyn put a great deal of thought, time, and energy into thinking about activities that would facilitate enactive learning. In her habits of reflection as well as her classroom participation I saw the dual roles of co-learner and facilitator converge.

Learning From Other Teachers

During my first few years of public school teaching I focused all of my efforts on my most immediate subject of attention: the classroom. I planned for the classroom, lived in the classroom, and referred to the classroom as my primary frame of reference for my personal and professional development.

After several years I gradually began participating in other professional activities related to teaching outside the classroom. These included workshops, seminars, conferences, curriculum planning events, and other forms of committee work. Gradually, my focus began to shift from my classroom and myself as classroom teacher to a more relational view of education. I found myself gaining new insights and perspectives I could not have imagined.

As I turned to other sources of information about teaching, I started focusing on what I could learn from my colleagues. This was not a conscious decision but one that emerged as my focus turned from myself to others around me. As I continued teaching, I found numerous opportunities to plan, teach, and work with other instructors and professionals, including a librarian at one of the schools where I worked (Hocking, 1991). This relationship became an ongoing source of inspiration, passion, and professional development. One of my delights as a teacher over the past 21 years has been to observe and learn from fellow colleagues. Not only
have my observations challenged and informed my actions and reflections, but also they have served as engaging points of connection with the communities in which I serve.

I have not yet had an opportunity to co-teach with another enactive instructor. However, I was able to observe Carolyn co-teach the first embodied cognition seminar I attended the year before my fieldwork. During one of our conversations I asked her to reflect on the importance of team teaching. She said she finds it engaging to have another person to play off, to back her up, and suggest how an activity could be extended. She added that her understandings of her instructional area have grown by co-teaching with instructors from other areas (Carolyn, personal communication, October 1, 1997). Even in this team environment she still referred to herself as a learner.

At the same time I was enrolled in my initial course with Carolyn I also took another graduate seminar with Dan, my co-supervisor, on university teaching. As a course requirement, students were asked to shadow a master teacher, someone we admired and wanted to emulate in our future roles as adult and higher education instructors. We were asked to meet with and hold a series of conversations with our target instructor that would serve as a framework for assessing that individual's instructional perspectives. I regarded the seminar assignment as an important opportunity on my learning curve. I had just completed my masters degree in adult education and was looking forward to doctoral studies as preparation for my transition into higher education teaching.

Dan's assignment also reminded me of how some teachers continue to influence us in meaningful ways throughout our lives. Our teachers may be schoolteachers, adult educators, or community leaders. Sometimes they are the reason we become teachers or decide to continue our education. I can still remember Mr. Dunham, my high school English teacher, asking my mother if I was going to become a teacher.
Recognizing the value of observing someone in higher education, I began searching for a master teacher that would serve as a mentor for my doctoral course assignment. Finding someone proved to be more challenging than I had anticipated. I had to decide which instructor would be a wise teacher and willing mentor given my goal to teach in higher education.

My deliberations continued until one day the name of someone appeared that my friends and I agreed was truly a master teacher and therefore an honourable candidate for my case study. I remember speaking with him one evening many years ago when I phoned him to explain the graduate seminar assignment and solicit his participation. As it happened, he was unavailable due to another commitment out of town. He empathized with the challenges of my assignment but added that he believed there was pedagogic value in any instructional situation. He assured me that I would learn much from whomever I chose to observe.

These words proved to be auspicious. Very soon after my phone conversation I located a teacher educator who invited me to observe one of his classes. He also took time to share his teaching perspective in an interview.

This project gave me another frame of reference for assessing the complex roles and responsibilities that shape entry points into teaching. It gave me a different window for thinking through instructional perspectives and relationships that teachers embody through their classroom participation.

Several years later when I taught undergraduate students I invited them to reconnect with their embodied histories by asking them to reflect on a master teacher in their lives. One student, sadly, did not have a spiritual teacher that she could recall. However, many students produced rich, evocative accounts of the paths that had led them to become adult and higher educators.
Some adult learners continued their journal writing throughout the week, crafting beautiful, compelling accounts of the student/teacher connection.

Rethinking Starting Points in Enactive Teaching

What do these three sources of feedback from self-inquiry, students, and other teachers reveal about enactive teaching? First, they challenge reductionistic models of teaching as something we do to others regardless of instructional context. By attending to context, teachers may begin to understand how actions, intentions, and beliefs are intertwined.

This is a relational or ecological view of instruction. It suggests that how we learn to read teaching is much like how we learn to read other texts. Sumara (1996) says, "Because all texts are particular forms that are historically, culturally, and politically effected and situated, the experience of engaging with this form rather than that form means participating on one complex set of relations rather than another" (p. 1). How we read teaching will depend on the relationships we bring to the classroom even as our instructional experience will transform our sense of those relationships.

Learning to read teaching mindfully is not only about developing complex habits of mind; it is about recognizing the interplay between our perceptions and actions as a frame of reference for how we enter in and out of classrooms. This is a second reason why it is important to develop an embodied view of experience, one that highlights a distinction between complexity and complicity: "Complicity,' in addition to sharing an etymological heritage with 'complexity,' evokes senses of being implicated in or serving as an accomplice to and thus announces a need to be attentive to one's own participation in events" (Sumara & Davis, 1997, p. 303). As teachers we need to be mindful of our complicity in order to enlarge education as a space of possibility (Sumara & Davis, pp. 302-305).
The need to challenge instrumental views of teaching and acknowledge our complicity in ways of knowing are both part of a need to understand classrooms as self-organizing systems. This is a third reason why an embodied view of experience is essential to an enactive view of self.

To understand self-organization, it is necessary to understand the difference between form or pattern and structure in living and nonliving systems. Capra (1996, p. 159) refers to bicycles as an example of a nonliving system. Their configuration of wheels, chain, pedals and other parts, he says, constitutes their pattern of organization. This is the same for any bike. How those elements are configured from one bicycle to another will distinguish the structure of a racing bicycle, for example, from a touring bike. In today’s market we find a wide range of bicycles with the same pattern but with different structures based on price, function, and other considerations.

In human beings, however, Capra (1996) says, "Biological form is more than shape, more than a static configuration of matter through a living organism, while its form is maintained. There is development, and there is evolution" (p. 18). He argues that we need a third term, process, to account for human metabolism (Capra, pp. 159-160). As human beings, we do not merely represent what we perceive and take in from our environments. We re/create our understandings and experiences by actively interacting with our environments. This is a participatory view of perception.

Extending this analysis to teaching as an autopoietic activity again challenges linear views of planning. However, it does not dismiss the need for structure. One analogy Maturana (1999, 2001) uses to explain autopoietic systems is the analogy of someone who purchases two pairs of shoes. We may find a pair of shoes that fit us perfectly and decide to purchase another at the same time in order to keep a spare pair on hand. Yet if we pull out the spare pair of shoes a year later we may find that they do not fit us as well. The reason for this is because our feet and our
first pair of shoes have changed in response to the ways in which we have used them. The interaction between the shoes on our feet and the environment in which we wear them have both triggered one another so that, after several months, the environment is no longer the same and neither are our feet and shoes. If we value enactive inquiry as living practice we need to be mindful of how the pattern, form, and structure of our teaching interact with one another.

However you enter into the classroom will speak to your values, texts that inform your thinking, and limits of your self-organization as a living being. You may think of new beginnings as opportunities to question your place in the world while connecting with other educators and relationships that have made you who you are:

I ask you now to think of a really good teacher that you have experienced in your time. Allow him or her to be present before you. I believe that the truth of this good teacher of yours is in the measure of the immeasurable. And, now, say to him or her: he is the teaching; she is the teaching. And after you have said these words, allow the unsaid to shine through the said. Savor now the elusively true, the mystery of what teaching essentially is. (Aoki, 1992a, p. 27)
CHAPTER 4

Laying Down A Path With Others:

Drifting Into Relationship
Laying Down A Path With Others:

Drifting Into Relationship

I suppose that's what would make a good committee. There's some bond you have, some vision, there's some space that you're moving in together but there are still differences. You're the same and you're not the same kind of thing. It's in that working together where something is allowed to happen. That's what's critical.

(Lara, personal communication, September 30, 1997)

Enacting A Relational View of Self

My focus in the last chapter was on how new and experienced instructors might become enactive instructors. I argued that teaching begins by embracing our senses of being as individuals and honouring the legacies and relationships that we bring into the classroom.

Yet enactive teaching is as much about letting go of the self as it is trying to identify what makes us unique as a self-organizing system. Although self-reflection is essential for becoming an instructor it is not sufficient for mindful, open-ended reflection. As well as acknowledging our embodied participation in the world, we need to understand how our manner of living as individuals implicates us in larger spheres of action and reflection with other educational participants. That requires a different level of awareness beyond our own bodies. Instead of focusing on our own bodies we also need to be thinking about the classroom and our profession holistically as dynamic, self-organizing systems with their own structural integrity. An enactive view of academic participation means that feelings, experiences, and ideas are in constant flow.
and interaction with one another. While our bodies are self-organizing they are interacting with other bodies.

This distinction between individual and social bodies is one of emphasis. It does not mean that we overlook personal actions, intentions, and beliefs in order to focus on the well-being of the class. On the contrary, it encourages us to reclaim our senses of identity ever more vigorously as part of our unfolding relationships with others. Ecological and enactive discourses "acknowledge the complex ways that senses of personal and collective identity are entangled in historical, cultural, biological, and more-than-human worlds" (Davis et al., 2000, p. 178). As we engage our individual senses of self in a classroom we become part of a dynamic choreography of multiple selves.

This choreography not only reconfigures our evolving senses of identity; it also stretches instructional roles and responsibilities. In addition to being aware of their complicity in personal relationships, enactive teachers must also be aware of how they are complicit in other webs of relationship. In class this means learning to work with adults from many different backgrounds and perspectives.

If the classroom is a self-organizing system with multiple levels of relationship, how do faculty and students connect with one another in a meaningful way? What insights from enactive philosophy help to explain how they coordinate or fail to coordinate their actions and reflections toward the well-being of the learning community as a whole?

These are questions that I identify with the enactive notion of laying down a path in walking. It is a notion that acknowledges "that although there is constant struggle to maintain a self, there is no actual self in experience" (Varela et al., 1991, p. 238). It emphasizes that the struggle to find a self in someone's mind or in the world is actually a dynamic, co-emergent process of living with
others. We become who we are, in other words, according to the relationships in which we participate. One of the challenges for enactive instructors is to be mindful of when and how these relationships facilitate the learning we value for others and ourselves. How do we risk letting go of one self in order to become part of another? How do classroom cultures develop with so many people laying down paths at the same time? The ability of faculty and students to flourish alongside one another, as Lara has shown, will depend, on how successfully they are able to coordinate their actions and points of view in productive and respectful working relationships.

This coordination means honouring the groundless nature of cognition and self-identification. Varela, Thompson, and Rosch (1991) use the notion of groundlessness to reconceptualize the self:

Within the tradition of mindfulness/awareness meditation, the motivation has been to develop a direct and stable insight into absolutism and nihilism as forms of grasping that result from the attempt to find a stable ego-self and so limit our lived world to the experience of suffering and frustration. By progressively learning to let go of these tendencies to grasp, one can begin to appreciate that all phenomena are free of any absolute ground and that such "groundlessness" (sunyata) is the very fabric of dependent coorigination. (p. 144)

What does letting go of the self in a classroom mean? This was a question of ongoing mystery and excitement among seminar participants. In hindsight, students may have participated in Carolyn's course a second time out of frustration as well as curiosity around groundlessness as an orientation for teaching and learning. Exactly what did it mean to lay down a path in walking as a doctoral student?
The importance of groundlessness was confirmed in both of my research conversations with Lara. She said that faculty and students on doctoral committees are constantly reading one another to determine if they can work together: "Are we going—I want to say on the same path. But now I want to say on a groundless path? That's something that appealed to me very much in the enactivist course, the travelling on a groundless path" (Lara, personal communication, September 30, 1997).

Lara started to connect with this path intuitively. Trying to express her knowledge conceptually, however, raised questions about the constraints and freedoms of language as a performance medium. "Do you have to bring in language for meaning-making? As I struggle to conceptualize moving on a groundless path, I sense that meaning is constructed simply through doing and yet I am struggling still with the language" (Lara, personal communication, December 24, 1997). The enactive view of laying down a path in walking suggests a non-foundational view of language. How that looks in terms of faculty/student interactions was an ongoing topic of discussion among Carolyn's students.

Varela, Thompson, and Rosch (1991) recognized how disorienting a groundless view of self could be in our culture: "Once we let go of a fixed self, we no longer know how to look for the world. We define the world, after all, as that which is not-self" (Varela et al., p. 130). Yet laying down a groundless path for the authors epitomized the re-enactment of the self and the possibilities to live more ethically, compassionately, and creatively with others. It reflected nothing less than the transformation of planetary culture based on a non-foundational view of knowledge (Varela et al., chap. 11).

Inspired by their writing, I will explore groundlessness as an orientation for classroom relationships in two contexts by reconsidering how our embodied actions, individually and collectively, couple us to our environments. My first frame of reference will be to consider the
embodied actions of Gayle, a research participant, in her environment as she describes her relationships with nature as a dynamic system. I extend this frame of analysis in the second part of my work to reflect on the self-organization and transformation of larger systems such as the classroom over time. Both levels of inquiry offer distinct but overlapping insights into the transformation of the self through embodied action.

One result is a dynamic view of drift that I emphasize in the second section as a dynamic frame of reference for reconceptualizing classroom relationships and interactions. Varela, Thompson, and Rosch (1991) identify embodied action with natural drift as follows: "How can we imagine ... that relation of codependence between mind and world? The mechanism that we have created (the embodied metaphor of groundlessness) is that of enactive cognition, with its image of structural coupling through a history of natural drift" (pp. 237-238).

Drift in educational terms helps to strengthen understandings of improvisation for co-learning and facilitation at the instructional level by illustrating how classroom participants self-organize their evolving relationships and senses of self. Like researchers, teachers are called to be part of a complex dance that winds and wanders through time and space. Identifying their movements as a dynamic form of drift helps to explain their roles as dancers as well as choreographers.

One challenge in writing about groundlessness is that thoughts will be committed to paper in a grounded form. This has been an ongoing challenge for my research inquiry. In this instance, however, I am heartened by the words of a focus group participant who said, "We're going on groundlessness. That's the whole idea, so it's not certainty that we are looking for, but maybe we have to voice uncertainty in some way." This chapter is an engagement with uncertainty with the hope that the path I lay down may overlap with yours and invite us into relationship.
Rethinking Embodied Action Through Human/Nature Relationships:
A Dynamic Systems View

Meeting Gayle.

Gayle is an outdoor enthusiast, someone with a deep love and respect for nature. So, after completing her first graduate seminar on embodied cognition, it was not unusual that she would return home and spend the summer outdoors. She described herself as a reflective thinker and spent much time contemplating nature. What distinguished her summer reflections this time were enactive views of learning. She continued contemplating the significance of her classroom experience and its implications for her ongoing development as a researcher, scholar, and doctoral student.

Her attention began to focus on her bodymind connection and her relationships with nature. She used these relationships as a way to engage enactive theory and develop a sense of groundlessness. Her connections with nature allowed her to embody and ruminate over what she had been introduced to in the classroom. Gayle continued mulling over enactive philosophy, not as an intellectual activity, but in relation to her outdoor experience. This was how she started developing a sense of groundlessness as embodied action in a dynamic system.

Scientists often study these systems using dynamic systems theory. Capra (1996) identifies dynamic systems theory specifically with mathematical theory: The new mathematics, he says, "is one of relationships and patterns. It is qualitative rather than quantitative and thus embodies the shift of emphasis that is characteristic of systems thinking—from objects to relationships, from quantity to quality, from substance to pattern" (Capra, p. 113).
To understand how a dynamic system might operate in practice consider the complex swimming manoeuvres of the Bluefin tuna, says Clark (1999), who identifies them as an example of embodied action: "The Bluefin tuna is a swimming prodigy, but its aquatic capabilities—its ability to turn sharply, to accelerate quickly, and to reach such high speeds—have long puzzled biologists" (p. 345). Fluid dynamicists, we are told, have figured out how the tuna exploit their environment in order to perform these awe-inspiring acrobatics in water.

Although this example of embodied action does account for the movements of a particular organism, it does not explain how human perception of a phenomenon makes us part of a dynamic system through a participatory view of perception. It was this emphasis that intrigued Gayle as she grappled with the notion of embodiment and possibilities for developing relationships with others by laying down a groundless path.

_Fighting turbulence, falling into flow._

During our conversation Gayle shared two stories to illustrate how her participation as part of a dynamic, autopoietic system began shifting her view of embodied action. The first story was about kayaking. One day while kayaking she found that she was unable to roll her kayak over by performing a _pop-up_ in the river. This was a source of concern because she had been able to perform this manoeuvre previously.

She began troubleshooting what was happening between her body and mind in this setting and how she might enter into the situation differently. To explore other alternatives, she decided to take her kayak out to a lake. She also asked her husband, a fellow kayaker, to observe her and offer feedback:
I decided I'd go back to the lake and try to figure this out. I couldn't figure out why I couldn't roll.

Later that weekend my husband helped me. There's a whole process. It's a very dynamic action. What I found is if I waited too long and just held the paddle and tried to think of all the steps I couldn't roll very well. My husband said, "Just do it fast!" When I went under and I didn't think about it I'd come popping right up, so it would work really well. There's something about that experience with the body, the mind, and how I learned it as a continuous process. (Gayle, personal communication, October 4, 1997)

Gayle recognized that self-confidence and risk were both required to roll over the kayak, but she also recognized that the performance of the manoeuvre was not wholly dependent on what she did. "There's just so much going on in that situation. It's extremely dynamic. The water's changing. You're changing. It's all happening so fast" (Gayle, personal communication, October 4, 1997). Gayle started identifying her role as a kayaker as part of a dynamic, co-evolving system.

Enactive philosophy challenged her to think more holistically during this course of events, she said. In the past she would have focused on discrete elements of the problem—the boat, the environment, and herself—in order to troubleshoot. Now she viewed them more ecologically as part of an interactive, embodied way of being. During the course of our conversation, in fact, Gayle used her hands and voice to retell her experience. She also chose to show the connections she was making with enactive philosophy by drawing a web on a large sheet of chart paper.
I also started developing a relational view of knowledge in Carolyn's seminar. I remember one summer watching a documentary that followed the plane crash of John F. Kennedy Junior. The newscasters attributed the crash to one of three variables—the pilot, the weather, or the aircraft—without considering more holistically how all three might have interacted to bring the plane down.

Gayle's experiences kayaking not only underscore a need to understand complex systems as an interplay between a whole and its parts. Her inquiries also invoke a participatory view of perception, meaning that interactions between her bodymind and environment continue to shape her evolving senses of self. It was not until she saw herself as an extension of the environment that she was able to be mindful of kayaking as embodied action. This became clear after she shared another memory of her summer vacation.

The Experiencing Form

For the largest part of our species' existence, humans have negotiated relationships with every aspect of the sensuous surroundings, exchanging possibilities with every flapping form, with each textured surface and shivering entity that we happened to focus upon. All could speak, articulating in gesture and whistle and sigh a shifting web of meanings that we felt on our skin or inhaled through our nostrils or focused with our listening ears, and to which we replied—whether with sounds, or through movements, or minute shifts of mood. (Abram, 1996, p. ix)

Given her love of nature, Gayle experienced a felt sense of connection with the writing of ecophilosopher David Abram (1996). One term that caught her attention was his notion of an
"experiencing form" (Abram, p. 10), a term that he associated with oral, indigenous cultures and traditional uses of magic. Abram argues, every sentient being—every animal, every blade of grass—has "its own predilections and sensations" (p. 10) and therefore may legitimately be considered a perceiving form, albeit one that differs from human ways of knowing. The idea of an experiencing form extends Merleau-Ponty's (1945/1962) participatory view of perception to human relationships with nature.

So, when Gayle returned home that summer she began exploring experiencing forms in her own environment. As well as considering her participation outdoors as part of a complex system, she began thinking about how other sentient beings respond to human participation as reflected in this October 4, 1997 conversation:

**Brent:** Have you had any other experiences like kayaking, any other stories, that come to mind when you have reflected on the meaning of that experience?

**Gayle:** Yes, when I was trying to write about it. I did some [writing] this summer on the island where I was. It was the beginning of my first [comprehensive exam] but really it was an essay about my personal experience on an island, thinking about the notion of place differently and thanking about sentient systems. At the time I kept thinking sentience was consciousness, that everything had consciousness. I played around with the notion of island. Was the island fixed? I kept doing this with place and groundlessness. Was it fixed in the water? Did the earth come up? Or, was there actually water all under it?

I kept thinking that there's a path around the island and I was walking around the path. I went out barefoot one night to try and get a picture of one of the loons. I was sneaking along the path and it was extremely wet. The path was actually lower than the water level but there wasn't a puddle.
So, it was like *Well, if the island's floating maybe the water's just moving underneath it.* It made me rethink what an island is instead of this fixed place that's rooted with earth connected.

**Brent:** What is the significance of that when you think of it today?

**Gayle:** The significance is that it's changed my way of thinking. It's allowed me to be mindful.

**Brent:** Which part of enactivism does that resonate with?

**Gayle:** Well, enactivism is embodied action. Something would call my attention and I would try to think why it happened. Then I would start questioning. I allowed those things to happen without saying, "Oh, you should've been reading right now because you're doing doctoral work." But I was doing doctoral work by using my personal experiences and trying to value those experiences versus reading a theoretical understanding.

**Brent:** I get the sense in listening to you that a large part of this has to do with mindfulness. How do you understand that term?

**Gayle:** I'm looking at this through experience because that's what I've been exploring. Experience is connected to place or embodiment or a way of being and thinking in the world or sensory perception. Experience isn't just this thing we can fix and say, "This is what experience is." It has a lot of connections. It is an emergent place. Mindfulness is a way to enact embodied action.

**Brent:** You also mentioned a few minutes ago the word *groundless* or *groundlessness.* Tell me more about that and what it means to you.
Gayle: Wow! Well, there we go. I started playing around with the island as being a groundless place. I think that's where I got thinking. Is the island really grounded? Is there water actually flowing under, through it? That's where it started. I thought about motorboats moving through the water. Was it the motorboats moving over the water? Or, was it the water moving under the boats?

Gayle's attention to experiencing forms is important for several reasons. First, it reflects an enactive view of cognition as perceptual inter/play. Davis, Sumara, and Luce-Kapler (2000) argue that "some things must be pushed out of consciousness in order for other things to be perceived" (p. 23). They relate this to figure/ground studies (Davis et al., p. 23). You will appreciate the figure/ground connection if you remember being asked by an educator or workshop leader to look at a picture and describe what you were seeing. The picture, it turned out, was two pictures-in-one. Psychologists and others who study habits of perception commonly use this activity.

The significance of the figure/ground connection, from an enactive perspective, is to emphasize that "learning to teach and transforming one's teaching practices . . . are not simple matters of deliberately selecting and enacting particular pedagogical strategies. They are, rather, complex matters of embodying different habits of perception, of speaking, of theorizing, and of acting" (Davis et al., p. 23). As Gayle shares her story, she is constantly inverting the figure/ground of her experience, feeling the ebb and flow of her embodied actions in light of her relationship with the island.

It is this relationship that is of special significance from an instructional perspective. In both of Gayle's narratives of kayaking and her visit to the island she is beginning to experience a
different quality of relationship with her environment. Just as importantly, she has come to realize that her relationships are rewriting her fundamental senses of self, moving her from a place of certainty to a view of embodied action that she struggles to capture in words. She identifies this as a groundless path of inquiry and is excited about the ways in which it is allowing her to question and reconnect with other living beings.

*Moving Along A Path Together: Natural Drift*

In their discussions of embodied action Varela, Thompson, and Rosch (1991) use the terms *structural coupling* and *natural drift* to explain how self-organizing systems interact and change over time. Gayle's understanding of laying down a path shows how she is experiencing groundlessness at an individual level. But how does the inter/play between one experiencing form and another unfold within and between larger systems such as the classroom? To understand this, we need to understand the significance of structural coupling first and then natural drift.

Maturana and Varela (1987) used both of these terms in their early research. Although their explanations are contextualized by their scientific inquiries, there are some key characteristics that will help us to understand teaching as co-relational as well as co-emergent. Much in the way Gayle described her interactions with the environment, the authors describe structural coupling as a reciprocal process of interaction between the structure of an autopoietic, that is, self-organizing system and the structure of its environment. "The result will be a history of mutual congruent structural changes as long as the autopoietic unity and its containing environment do not disintegrate: there will be a *structural coupling*" (Maturana & Varela, p. 75).

To the extent that Gayle's interactions with the environment were ongoing and repetitive, they constituted a process of structural congruence with her environment. In other words, there was a
discernible, self-organizing exchange between the two of them. Although their interactions had an impact on one another (Gayle shifted her thinking; the river gave way to the kayak), neither the structure of Gayle's body nor that of her environment was compromised. Their relationship, therefore, retained its structural integrity. Maturana and Varela (1987) use the term *ontogeny* to describe "the history of structural change in a unity without loss of organization in that unity" (p. 74) when they refer to living organisms.

The same patterns of interaction that shapes a self-organizing system's interactions with the environment also characterize the process of evolution on a species level, according to Varela, Thompson, and Rosch (1991). They refer to this as natural drift, arguing that it:

> provides a view of cognitive capacities as inextricably linked to histories that are lived, much like paths that exist only as they are laid down in walking. Consequently, cognition is no longer seen as problem solving on the basis of representations; instead, cognition in its most encompassing sense consists in the enactment or bringing forth of a world by a viable history of structural coupling. (Varela et al., p. 205)

The authors cite different references within the sciences of cognition and complexity to support their view of natural drift. Their argument challenges adaptationist theories of evolution that emphasize the response of organisms to pre-existing conditions. In contrast to this notion, Varela, Thompson, and Rosch (1991) assert “that the very notion of what an environment is cannot be separated from what organisms are and what they do” (p. 198). As long as the structural integrity of a self-organizing system and its environment are conserved, a system will evolve through a pattern of natural drift, that is, in random variation much like water drops that leave marks when they are flicked from the top of a hill (Maturana & Varela, 1987, pp. 107-
This analogy is used to show how individual systems (in this case, non-living) travel differently along a terrain.

This is true for systems that evolve over time as well and interact with one another through natural drift. The recurrent patterns of interaction among human beings and other living organisms, like Gayle's interactions with her environment, create patterns of relationship that speak to the perils and possibilities of being human at particular stages in our development.

**Implications for Teaching**

I began this chapter by emphasizing the need for a relational view of self based on an understanding of groundlessness. I illustrated this connection by investigating embodied action at two levels of inquiry. The first was an individual level in the form of Gayle's narratives. The second extended the notion of experiencing forms to an evolutionary view of natural drift. Both levels reflect an enactive view of perception as paths laid down in walking. In order for the path to emerge, however, there has to be structural congruence and a recurrent pattern of interaction among a self-organizing system and its environment.

What does this mean in terms of enactive teaching at the higher education level? At a very basic level, it emphasizes, first, a need for faculty and students to be mindful of how different environments nurture and sustain different ways of being. A distinguishing characteristic of Carolyn's course was that classes were often held outside or at different locations on campus. This impressed upon students the importance of place as an experiencing form.

A second way in which groundlessness shifts understandings of classroom relationships is by strengthening ecological thinking. Seminar participants attempted to enact this view during one of Carolyn's first classes. She invited us to accompany her on a nature walk through an old-
growth forest adjacent to campus. We met at the edge of the woods and were asked to let the chatter in our minds subside and allow a path to open before us as we walked single-file into the forest. The dynamics of a large group disrupted the senses of silence and flow we might have experienced had we walked the trail by ourselves. However, the activity served to remind us of how we enter into relation with nature. As the graduate seminar continued many students continued to call up this relation as a focus of ecological thinking in teaching.

A third way in which groundlessness shifted our perception, illustrated through our nature walk, was by emphasizing that classroom relationships cannot be scripted ahead of time. The notion of laying down a path in walking is consistent with the improvisational view of teaching described by Carolyn in the last chapter. The process of facilitating a group of higher education students often dissolves into co-learning as an instructor becomes fully immersed and aware of participating in the moment. Enactive educator Warren Linds (2001) captures this sense of spontaneity in his co-emergent view of drama facilitation:

As an artist I engage in a facilitated process of dramatic creation that is filled with such rapidly evolving uncertainties . . . . Things happen spontaneously as people play and inter-play with each other, finding and filling spaces for dialogue and interaction. We don't know where the spaces will open up. We jump into these uncertainties whenever they appear. (p. 26)

In one of her research conversations with me, Carolyn (personal communication, October 1, 1997) indicated that she tries to open spaces for learning by "holding a flag up that says Here's enactivism. Anybody interested?" The flagpole is a gathering place where students are invited to lay down a path in learning with others. Many, however, continue to search for a foundational view of knowledge. During the first evening of seminar when I started my field project one
newcomer asked what enactivism was. Carolyn's response was that we were all still learning what it is.

Gayle (personal communication, October 4, 1997) said that people in general are on a "search to objectify and place everything. They continually do it, so they're actually in this state of groundlessness but they're never quite comfortable there. For me, it's an exciting place because it allows me to be mindful."

Gayle's reference to people already being in a state of groundlessness speaks to embodied action as a dynamic, a state of becoming. Lara (personal communication, September 30, 1997) described this sense of momentum as follows:

> It is in the moving forward that experience happens. I think the members of my committee have been very supportive in allowing me to take risks. In fact, they've told me if I want to jump they'll push me and they'll be there to catch me if I fall. So I think that was an open invitation to move forward.

Lara said that on strong doctoral committees professors are willing to risk travelling this groundless path with their students. Although there needs to be tension to create movement, the tension cannot be so destructive that it creates a blockage. Lara (personal communication, September 30, 1997) acknowledged that this is a delicate balance.

The sense of movement invoked by laying down a path is consistent with Aoki's (1992a, p. 26) view that the teacher is the teaching. It is by enacting our teaching and learning with others that we abandon and reclaim our senses of self. It is in the performance of embodied action that our relationships with other classroom participants co-emerge.
This dynamic process of interaction challenges individual senses of self but again cannot destroy them without compromising the structural integrity of the relationship. Although teachers and learners are invited to try out new ways of being they also need to be attentive to what is conserved in the process of forming new relationships. The need to risk must be balanced by the need to conserve ourselves as particular kinds of structures. This is reflected in Lara’s relationships with her doctoral committee.

As well as valuing classroom relationships as a catalyst for change it may be equally informative for classroom participants to continue reassessing where they have travelled. We cannot predict what will happen but we can assess how our participation within a set of circumstances has unfolded. I encouraged undergraduate students in my adult education class to read and reflect on their prior learning as a basis for shifting their habits of perception. Drawing on an idea from Dan, my supervisor, I also invited them to analyze turning points in their lives, drawing on insights from their coursework. This form of critical reflection constituted another form of self-organization, often with dramatic results.

Using this retrospective method of analysis, "we can thus imagine what the world would have been if Cleopatra had been ugly. Or, in a more serious vein, what that boy who begs alms from us would have been had he been properly fed as an infant" (Maturana & Varela, 1987, p. 100). The important point here is that in moving backward and forward in time we are laying down multiple paths at once and reinventing ourselves on many different levels, coming to terms with our identities in a complex world.

How do I coordinate my actions with the actions of other people if my being is in flux? Are there sensibilities for drifting that will strengthen my senses of embodiment by reconnecting me with the bodies of others? Is there a way to inhabit my body as an organizational structure and as a life-experiencing form that will open the space I am in, energizing and connecting my body to
others in the classroom? What sensibilities will invite educators to converse with themselves and others along an ever-meandering, ever-expanding path of possibility while honouring relationships that matter to them individually and as members of complex learning communities?

All of these questions have important instructional implications. Drifting does not mean that teaching is aimless or that any educational intervention will do. It invites us to consider classroom participation as an unfolding choreography. Although we may anticipate some elements of the choreography ahead of time, the path that opens before us will ultimately determine how we teach:

Yet another way to express this idea would be to say that cognition as embodied action is always about or directed toward something that is missing: on the one hand, there is always a next step for the system in its perceptually guided action; and on other hand, the actions of the system are always directed toward situations that have yet to become actual. Thus cognition as embodied action both poses the problems and specifies those paths that must be tread or laid down for their solution. (Varela et al., 1991, p. 205)

Drifting, thus understood, becomes a way to speak about living within the flow of co-emerging relationships.
CHAPTER 5

Enactively Speaking:
Language in The Performance of Human Togetherness
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Language in The Performance of Human Togetherness

This revelatory quality of speech and action comes to the fore where people are with others and neither for nor against them—that is, in sheer human togetherness. Although nobody knows whom he [sic] reveals when he discloses himself in deed or word, he must be willing to risk the disclosure. (Arendt, 1958/1998, p. 180)

When we attend to our experience not as intangible minds but as sounding, speaking bodies, we begin to sense that we are heard, even listened to, by the numerous other bodies that surround us .... We find ourselves alive in a listening, speaking world. (Abram, 1996, p. 86)

Living in The Flow of Language: Rethinking Academic Discourse

One of the most engaging aspects of graduate school for me has been my participation in classroom discussions. I still remember entering magistral studies in my mid-thirties, being introduced to the freedom and vitality of a new discourse community. For weeks then months I soaked up the strange and seductive resonance of liberatory pedagogy, functionalism, and other vocabulary, not fully understanding what people were saying but enlivened by gestures, tones, and sonorities that had suddenly become part of my conversation.
As a doctoral student I am at ease participating in these exchanges. Yet even after many years my relationships with enactive philosophy are difficult to put in words. I recently told my committee members that I feel as if I have been living in a foreign country for the past few years, learning a new language. The more I use this language the more out of touch I feel with my past. I can't help questioning my fascination with Varela, Thompson, and Rosch (1991). Why am I so intrigued by their language?

I raise this question because the discourses we adopt as educators reflect what we value and hope to achieve in the classroom. We not only use language to express understanding; we also use it to communicate and form relationships with others. Discourse thus serves as a path of articulation between personal and collective ways of being.

During my first set of interviews with graduate students there was much uncertainty about what enactive philosophy meant. As students became more comfortable with its discourse, they were able to identify goals and possibilities for their teaching and learning. This again is like second-language learning. While gaining proficiency in our new language we rely on our old language, translating back and forth. Eventually, we will become more fluent.

One reason I find enactive philosophy engaging is because it recognizes language, like action and reflection, as extensions of being. In other words, it honours discourse as one of the ways in which human beings develop self-understanding while nurturing relationships with others. Language allows me to rehearse different ways of being. The enactive view of embodiment reminds me that words, stories, and ideas are never exact representations of who I am. They are enactments of my relationships with the world. The more I engage those relationships the more fluent and creative my discourse becomes, but it is always a work-in-progress. I am always re-experiencing language through my evolving senses of being.
After many years, I have started realizing that my desire for self-understanding as an integral part of my development is inseparable from my desire to be a committed classroom citizen. Although I can talk to myself about enactive philosophy, I cannot experience the interpersonal dimensions of language until I see myself as part of a community. Although Carolyn's students spent much time contemplating the implications of enactive philosophy for themselves, they also shared their thinking out loud in the company of others in class and in my research project. Thinking through language allowed students to rehearse new ways of being. Today I have started asking not only how language engages different aspects of my being, but also how the performance of language invites me into the warm embrace of togetherness that plays such an integral role in being human, according to Arendt (1958/1998, chap. 3).

This shift in awareness did not happen overnight. My senses of language, like other areas of my development, evolved gradually starting with my readings of Abram (1996) in Carolyn's course. Some of my most valuable learning did not happen until I had finished my graduate classes and field research. Over time my ability to live through language was stretched by new ideas and experiences. Eventually, enactive philosophy became a personal as well as interpersonal discourse.

Sumara and Davis (1997) use the term commonplace locations to speak about "interpersonal and intertextual connections," (p. 306) that emerged when a group of educational participants began meeting, sharing ideas and developing a sense of community through co-emergent forms of inquiry. My research has also unfolded as a series of conversations that generated a sense of connection with others. Talking about enactive discourse with my research participants developed strong relationships that served as models for my classroom participation, inviting me to reinvent myself in the ebb and flow of human relationships. What follows is an analysis of commonplace locations that facilitated this transformation.


Toward A Participatory View of Language

The work of David Abram (1996) as I have indicated was required course reading in Carolyn's seminar. In it he describes language as a sensory form of perception that connects human beings to a more-than-human landscape:

The chorus of frogs gurgling in unison at the edge of a pond, the snarl of a wildcat as it springs upon its prey, or the distant honking of Canadian geese veeing south for the winter, all reverberate with affective, gestural significance, the same significance that vibrates through our own conversations and soliloquies, moving us at times to tears, or to anger, or to intellectual insights we could never have anticipated. (Abram, p. 80)

This participatory view of language overlaps with the enactive view offered by Maturana and Varela (1987). They argue that humans and non-humans alike specify linguistic domains through their manner of living over time. What is unique about humans, Maturana and Varela maintain (p. 209), is that "in their linguistic coordination of actions, they give rise to a new phenomenal domain, viz., the domain of language" (p. 209). Human beings coordinate their actions as social animals through language and their languaging becomes their manner of being.

Both enactive and ecophilosophical views of language raised many questions for students in Carolyn's seminar: How did language and gesture shape personal and collective senses of classroom participation and identity? What did teachers need to know in order to use language effectively? These, among others, were important topics of discussion.
As the seminar progressed, different ways to engage language were explored. They included narrative re-enactments of personal experience. One evening Carolyn took the class to an area on campus overlooking the Pacific Ocean where students were invited to sit in a circle and share their stories of learning. The beautiful environment in which this occurred reinforced the sensuousness of the activity.

Another seminar activity centred on a chapter by Abram (1996) entitled "In the Landscape of Language." In this chapter he argues that "a particular place in the land is never, for an oral culture, just a passive or inert setting for the human events that occur there. It is an active participant in those occurrences" (Abram, p. 162). Participants in Carolyn's course were invited to explore geographical locations that engaged their memories and imaginations by enacting a story of personal significance associated with that place to a partner. This activity highlighted the importance of ecological thinking. "Thinking ecologically . . . means more than simply engaging in discourse with others about ideas; ecological thinking requires an attentiveness to the way in which we enact our lives with others in particular places" (Sumara & Carson, 1997, p. xx).

Attention to embodied explorations of language in class included phenomenological forms of inquiry. Carolyn brought still-life flowers into class one evening. We were asked to draw them as if they were speaking to us before writing a poem on the back of our paper. "The phenomenological method consists of the ability, or rather the art of being sensitive—sensitive to the subtle undertones of language, to the way language speaks when it allows the things themselves to speak" (Van Manen, 1990, p. 111).

The first year Carolyn co-instructed the graduate seminar there were reflective writing times structured into lessons. Students were invited to write from their bodies, allowing ideas to flow freely in the moment. This activity encouraged students to rehearse their thinking while making personal connections with enactive literature and class discussions. Several students said they
enjoyed the repetition and freedom of writing in this manner. Gayle (personal communication, October 4, 1997), referring to the importance of practice, said, "When I'm pushed to actually write and don't think I have anything good to say it's amazing what comes out of me sometimes."

Writing continued to be a major focus during the second year of seminar. Students were invited to practice writing by sharing their assignments with other students, submitting drafts of their work to the instructor, and communicating with other students through e-mail and web-based chats. "Writing teaches us what we know, and in what way we know what we know. As we commit ourselves to paper we see ourselves mirrored in this text. Now the text confronts us" (Van Manen, 1990, p. 127).

Opportunities for students to experience language through their bodies extended to non-verbal as well as verbal communication. Several students began to recognize the importance of gesture, for example. Gayle (personal communication, October 4, 1997), referring to her experience kayaking, said, "I couldn't have described to you what it was like there or what happens to the boat without using my hands." Later in the same interview she argued, "Enactivism allows everything to have experience and to have voice and to speak. It might not be through [spoken] language" (Gayle, personal communication, October 4, 1997). Another way to make the same point is to argue for a view of embodied discourse inclusive of gesture.

Attention to language as a focus of enactive philosophy also challenged students to assess their classroom participation. Several identified their development as learners with a growing sense of confidence participating in class discussions. Frances (personal communication, November 3, 1997) said that she had spoken up in class two or three times because she felt a need to say something. She mentioned that this was rare for her in a university course. She and other magistral-level students told me that they initially did not feel confident participating in a mixed class with doctoral students. This feeling of intimidation may have been more pronounced, given
that many of these doctoral students were participating in the same seminar twice and therefore were more familiar with course content.

It is difficult to know what effect students' interactions with language had on their participation in other classes. However, their reflections in my research project suggested an increased awareness of language as an embodied phenomenon.

*Performing Acts of Literacy*

One of the questions that kept surfacing for me as a researcher was how a participatory view of language might shift faculty/student interactions. Lara offered one frame of reference. She used the term *performing acts of literacy* (Lara, personal communication, December 24, 1997) to describe how classroom participants read themselves in and out of relationships. I remember this language because it plays with the subject and object of engaging; we engage knowledge as we are engaged by our inquiries. This interplay is consistent with a view of enactive research-as-dance.

Engaging acts of literacy turns language, thought, and experience back onto themselves—throws them into question, troubles their ambiguities, exploits their nuances, stretches their limits, resists their meanings, and contests voices that are revealed and concealed. We are constantly ravelling and unravelling texts from different perspectives, and engaging our bodies as dynamic performance spaces.

This emphasis on language-as-performance is consistent with an enactive view of teachers as co-learners and facilitators. David (personal communication, October 29, 1997), another course participant, observed that Carolyn was skilful at facilitating communication among students. He noted that she appeared to be learning as part of the process. His comments again reflect the
overlapping role of enactive teachers. David distinguished this instructional orientation from transmission-based views of teaching.

The notion of performing acts of literacy also means that classroom participants are constantly transforming and re-creating their senses of being, that is, reinventing their senses of self through embodied practices. These practices may shift habits of perception. The following narrative from Moss (1986) shows how the re/performance of the self actively engages the participation of the entire body:

For several hours Laura had been singing a childhood hymn, repeating it over and over. Suddenly the quality of her singing changed. She felt as though she were no longer singing. She was the song. She found herself lifted to her feet, her arms raised toward the sky, her head arched upward. She said her hands did not end at her fingertips, but continued into the air and sky. The air and sky were alive, and she and they were the same . . . . Laura did not consider what was happening, it just took her. She was the experience. (pp. 1-2)

I witnessed a similar transformation several years ago in an elementary student. He was learning English as a second language and was being shown by a teaching assistant how to read. The text he was given was a Christmas song that invited him to sing even though it was not the holiday season. His performance as a singer animated his entire being. In the following days and weeks he asked if he might sing the song again. Music is a powerful testament to literacy-in-action.
Performing acts of literacy invites us to bring autobiography into learning. As Lara (personal communication, December 24, 1997) reflected on her learning, she spoke about how she had used autobiography as a graduate teaching assistant:

I had asked [students] to do autobiographies in literacy, in other words, their journeys through literacy. I came home and made a cup of tea and I sat there and I read these papers until about 2:00 in the morning. There was one particularly special moment when I had just made another cup of tea, brought the warm cup of tea here beside the couch, and then opened the next paper.

It was written in the form of a letter: Dear Lara. The person had mentioned wishing that she could be sitting across the kitchen table from me drinking tea as we were sharing this journey. There I was with my cup of tea reading her letter to me. It was so special, so poignant, because I felt a sense of their trust in me to be able to tell me so much in their autobiographies.

As I was reading their stories, their narratives, my own narrative entered their stories through my space, the different narratives of my travel treasures. It was as if there was a parallel story of my own occurring that I wanted to share with them as if I was writing my own autobiography through literacy. I had thought about constructing this in a page or two and sharing it with them. I was able to share with them how much I had enjoyed reading their autobiographies, but I never got to share the sense of space, the location of my reading, the situated learning that occurred, the
interaction that occurred as I was reading their stories and how my own story entered. I never did get to that in class because time never seemed to be there.

One reason disclosure of autobiography may be significant from a teaching and learning perspective is because it allows students to connect the personal and the cultural as well as the discursive and the phenomenal while honouring diverse ways of being.

Living Through Language in The Company of Others

As I started developing an awareness of living through language, I continued questioning and reflecting on my research inquiry. On what basis would my language in that context be regarded as successful? What would strengthen my enactive senses of language as mindful, open-ended reflection? These questions reminded me that research, writing, and singing are texts that emerge from a sense of place: a history, an idea or memory, a tension or possibility, a freedom or constraint.

In the course of these ruminations I began entering into a series of conversations with my research participants. The focus of these conversations was how we might apply our understandings of enactive philosophy to re-enact educational inquiry, specifically, my research interviews. This generated much discussion.

Some of my most memorable exchanges on this topic occurred at the end of my field project when I was preparing my second interview with Murray. Both of us were completing our second year in Carolyn's seminar. As much as we kept trying to answer what enactivism was, we kept coming up with more questions that led we knew not where. The more we attempted to objectify our understandings the more disoriented we became. We were constantly questioning our
understandings and commitments to enactive ways of being in our personal and professional lives. We did not realize it at the time but our participation in Carolyn's seminar would begin a conversation that would continue until this day.

At the time we gave a great deal of thought to the participatory roles of action and speech in our research and teaching. We imagined ourselves as artist/inquirers dancing in spaces that invited risk and possibility as well as paradox and peril, a shift that flowed directly from our learning in class. It was a connection that was also related to the nature of Murray's area of inquiry: drama facilitation. He is interested in what happens when adults get entangled in co-evolving performances of body, mind and space. Why are some group performances more transformative than others are? How do drama educators stay mindful of their bodies while facilitating imaginative reflection and experience in the bodies of others?

One cold day on December 13, 1997, my research interview with Murray finally arrived. I began our conversation in my typical interview style, reading questions from a script I had prepared beforehand. I asked Murray to reflect on connections he had made as a learner with enactive philosophy:

Murray: Carolyn talked about running up a flagpole and people congregate around the flagpole. You find connections and it helps you in your graduate study. The whole point of classes is to figure out where you connect to the body of knowledge that's out there. Maybe that's all a course can do: help people see where they connect to each other and to theories that are being developed.

Brent: When you speak of the course allowing you to make connections would you say that a lot of that has been a movement towards embodiment? Is that what connection means to you, the bodymind connection?
Murray: That's important in graduate school for sure because mind is privileged. Also, words are privileged and silence is not. Everything's words.

Brent: Tell me more because I agree with you.

Murray: Well, I mean here we’re using words to talk about words (laughing). You’ve got a tape recorder. I remember Peter Gzowski interviewing somebody. The interviewee would say, “Peter, you’ve got a wonderful shirt on,” and Peter would try and figure out a way to get the guy to describe why the shirt was wonderful as an example (laugh). You’re using sound here to communicate. So, how do you get to the problem with imitation and how do you actually connect to issues?

Brent: What have enactive discourses meant to you individually?

Murray: I look at things through the idea of performance. Everything we do is performance. Then it becomes a case of how you apply this thing called enactivism that is not a thing—to performance working with people. That’s something I can’t really say; I can only do. That’s something that only in doing will I discover what it means.

Brent: Are you able to articulate how your participation in the course shifted your understanding of performance?

Murray: It heightened my awareness of what performance does, what happens in performance. In other words, [it reinforced what] I already knew but provided me with language to describe this and a sensitivity to new ways language might emerge.

Brent: What is that?
Murray: I've actually gone as an audience member to certain performances and I suddenly became aware of my body reacting. I was watching a dance piece and there was one person dancing to a piano piece. She basically turned in a circle for 10 minutes, constantly turning in a circle. It took my breath. I was right there in the moment of performance. But I was only aware for a little while. I wasn't thinking anymore and I wasn't feeling. It was both at the same time. It was powerful. That spectacle that's on-stage stuff, but I think that also happens doing the improvised work I do and in facilitating. It's not a matter of what I'm thinking as being aware and present in moments I work.

Brent: How do you distinguish the two?

Murray: I'm struggling with that. If you've ever played tennis and you're just thinking about how you're going to serve you won't serve well. In any sport the more you think the less you accomplish. In writing you start playing around, so that words become metaphors. They're not representing anything; they're actually expressive. I can't use the term enacting. It doesn't mean anything to people. But I can find metaphors for enaction. I'm using interweave, intertext, interact, interplay. I don't talk about play. I talk about interplay. Enacting as a label doesn't help, so you have to find metaphors for that label.

Brent: If I had visited you a year ago leading a drama improvisation and I came back and observed you doing the same thing today, would I see a difference?

Murray: Oh, yeah!

Brent: What would I see different, assuming that it was the same activity?
Murray: Letting go. Letting go of presupposition. I'm not saying letting go of structure. There has to be coherent internal structure but then change occurs. In drama change occurs because you're dealing with human beings. I've come to this tentative idea of looking at facilitating drama as a way of learning to let go in teaching.

Brent: I feel this is a different space you're in than the last interview. It seems that enactivism is no longer a series of strategies for you; it's become part of your being. Is that fair to say?

Murray: Yes. It's a relation with the world and other people.

Brent: How would you describe that relation?


Brent: Are words one of the problems here?

Murray: Yes. That's why I'm playing around with verbs as metaphors. Somebody has actually said that performance is bodymind dancing at the edge of chaos. Elliot Eisner talks about how culture informs representation at the edge of experience, at the edge of the world. Teetering. It's like once you start thinking about it you're not there anymore. So, it's [difficult] to figure out how you talk about it.

I kept pressing Murray to elaborate on his understandings of learning as a bodymind experience. Suddenly, he says that in order to understand what he is thinking and feeling we will need to
change the interview format. He asks if I am willing to continue the interview on foot, walking around campus as we converse with one another. I agree, eager to see what will happen.

Weighted by winter overcoats, backpacks, and a tape recorder, we move outside. As we walk around campus there is a sense of openness. Here there are no scripts, only biting breaths of wind that blow against our faces and pull questions from our bones. Murray begins the interview again, introducing himself as a performer and inviting me to perform alongside him. He says that he is a tour guide who will show me around campus, discussing his experiences in higher education from an enactive perspective. He points to places where he has studied and is suddenly full of memory and language.

We continue our stroll. We describe what we see, hear, and feel and gradually the shape of our conversation changes. We are called to speak and listen to one another in different ways. I am no longer regulating and restricting the flow of questions and answers. Our skin is cold and we fight off shivers but there is renewed vitality to our speech. Our sentences seem to tumble off one another, caught in an orchestrated exchange of language, feeling, and thought. Somewhere, someplace in this cold, December landscape, we sense that the knowledge we had once sought at a table has gradually worked its way into our bodies, minds, and spirits.

Although I was self-conscious during much of the interview, it was an important turning point in my learning. My conversation with Murray challenged me to keep exploring language as a performance framework for rehearsing ways of being in and out of the classroom. My conversation with Murray suggested that the performance of language might be a key frame of reference for developing strong relationships with others.
Developing Inclusive Discourse Communities

One reason this connection between language and community was important to me was because it raised questions about inclusive discourse practices on and off campus. As a teacher and learner I had often felt caught between my right to have a voice and a need for strong discourse communities. Where were the points of balance between one voice and many? Between listening and speaking as reciprocal forms of conversation? Which acts of literacy would allow classroom voices to dance to their own drum while respecting the songs of the entire class?

Teachers and learners continuously live and relive their senses of the wor(l)d through language. They are challenged to engage conversation as a living form of cognition, thereby honouring its complexity. Listening to our own conversations and those of others can help us to mind the "cacophony of voices" (Aoki, 1992a, p. 17) that interrupt, entangle, and inform our embodied senses of being.

Enactive philosophy asks us to reconsider how we enter in and out of conversation with others. When I interviewed Gayle she noted how her readings of enactive philosophy had shifted her understandings of girls' voices as a developmental phenomenon. Describing this shift, she said, "I've spent a lot of time in outdoor education and decided that this was where my learning fits. [I] began to look at girls' voices in outdoor education. And then it went on to perspectives and now I'm looking at their experience" (Gayle, personal communication, October 4, 1997). One of the reasons she began to focus on experience, she said, was because it offered an ecological rather than reductionistic view of voice.

This distinction is not unlike comments made by Davis (1996). Referring to modernist views of interpersonal communication, he says, "We tend to take for granted . . . that we are insulated and
autonomous individuals, that a mysterious substance called 'information' can flow between us as we interact, that we are somehow in control of what is said and what is heard" (Davis, p. 34).

I am guilty of making the same assumptions and manipulating my voice in the same manner. One point of feedback I received on my university teaching was that I spent too much time talking in class. In retrospect, I was using language to mask my insecurity as an inexperienced instructor. Yet this action excluded space for other voices. My language did not flow from my being, but was a script that I used to assert my knowledge and authority. I am reminded of a professor's comment that academics, like dogs, mark and defend their territories in notorious ways, with leg raised.

As a graduate student, I also experienced many conversations in class that became forums for competitive monologues rather than frameworks for respectful debate and deliberation. “People who speak loudest, fastest, and most often believe they are also most right—yet often are the ones who know least. Authentic listening is an act of openness: open heart, open mind, open spirit—and open ears” (Steve Noble, personal communication, May 23, 2003). How would educational discourse unfold if teachers and learners let go of control to risked "arriving at shared understandings" (Davis, p. 39)?

I did not have an answer to this question when I was conducting my field research. My sense of how language as an embodied phenomenon might create strong discourse communities did not emerge until many years later. There were two influences that shifted my perceptions of language in this context: (a) a visit to Saskatoon, and (b) insights into the philosophies of Hannah Arendt and Humberto Maturana.
A church, an audience, an unfolding.

A crowd has gathered at Knox United Church in Saskatoon, Canada. It is an historic building with ornate, stained glass windows and cornices embellished with angels over the altar. The architecture infuses my body with memories of my childhood years. I am momentarily transported to another church at another time.

Something breaks my reverie and I return to the present. I am surprised to see a large crowd, gathering overhead on the balconies and behind me on pews. By the time the service starts the building has filled to capacity.

The congregation is welcomed before a choir sings and the guest speaker is invited on stage. He is a statuesque man, now 72 years of age but with the appearance of a 40-year old. His message is poignant, passionate, and playful. At the end of the evening he receives resounding applause and a standing ovation.

This was no ordinary church service but a keynote delivered in conjunction with the University of Saskatchewan’s annual *Breaking the Silence* conference, an annual event dedicated to gays and lesbians in public schools. The conference theme was spirituality. The figure at the centre of attention is acclaimed author and retired Bishop John Shelby Spong (2003) who has just delivered a rousing lecture entitled *The Christ who Breaks the Boundaries of Prejudice*. It is an address inviting an inclusive view of gays and lesbians in the Christian church. Whoever is in the audience receives a shared message of justice, compassion, and inclusion.
Bishop Spong is no ordinary speaker. That evening he talked passionately about discrimination and acceptance, prejudice and injustice. His role on stage gave him a privileged position yet there were hints of conversation between him and audience members who responded to his words through nod and gesture. Bishop Spong himself paused to listen and reflect, shifting locations on stage and in his speech. The evening's presentation flowed seamlessly from speaker to listener and back again as if choreographed. It did not seem to be delivered to people so much as to emerge with their participation and encouragement. He appeared mindful of his body as well of those around him, laying down a path in walking, allowing his words to become points of connection with the thoughts, feelings, and embodied sensibilities of his audience. When he had finished his presentation the bishop received thunderous applause.

Rethinking language and action: Arendt and Maturana.

The second influence on my thinking comes from literature. Sensing the direction my research was evolving, Dan, my co-supervisor, suggested that I read Arendt's (1958/1998) work as a frame of reference for inclusive discourse communities. What is significant about her writing is that although it reflects a particular set of philosophical sensibilities, it is also concerned with the participatory role of language as a form of civic participation. It is a view that the author identifies with ancient Greece.

Simply put, Arendt (1958/1998) says that action and speech allow us to live in the company of others. "Action and speech are so closely related because the primordial and specifically human act must at the same time contain the answer to the question asked of every newcomer: 'Who are you'" (Arendt, p. 178)? It is through language and speech that we affirm our connections with others and reveal ourselves as human beings. However, we cannot name the essence of someone. Instead we dance back and forth through language, building webs that indirectly refer to who we
are. It is in these tangled webs of connection that we reveal ourselves while strengthening our relationships.

This understanding of language overlaps with a conference presentation given by Maturana (2001). He noted that we are unaware of what is happening to our bodies in the moment because we are dynamically intertwined with a complex niche of interactions that constitute the activity at hand. Our immersion with/in a phenomenon, said Maturana, raises questions about our abilities to know in a continuously changing environment. What will help us to understand the organization of our living moment by moment? Maturana (2001) responded, "The paths that our lives follow are the satisfaction of our wants. If this is so, this is something that occurs in the relation of our space." We use language to make sense of experience but our explanations cannot occur outside our structural coupling with/in our environments. We need to value language as an enactive medium for reinventing ourselves with others in the moment.

Bunnell and Forsythe (2001) who draw on Maturana's ideas, argue that in human beings, "language and intelligence expanded together. Language arose as a manner of extending our capacity for the consensual behavior that we conserved through being a loving animal. Intelligence arose as a manner of expanding the capacity for languaging" (p. 158). Our use of language, in other words, is deeply intertwined with our manner of living. Bunnell and Forsythe (2001, p. 157) maintain that love is the only emotion that allows us as humans to experience a sense of congruence and well-being with others.

In reading Maturana and Arendt's participatory views of language, I am struck by a common emphasis on community and the possibility of coordinating diverse voices and actions. As teachers, we must be prepared to listen and feel our way through conversation in order to be
mindful of this possibility. Words, like actions, become part of the dances we enact through our relationships with others.
CHAPTER 6

Re/composing The Enactive Imagination:
An Aesthetic View of Self-Transformation
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Archaic Torso of Apollo

We cannot know his legendary head
with eyes like ripening fruit. And yet his torso
is still suffused with brilliance from inside,
lke a lamp, in which his gaze, now turned to low,

gleams in all its power. Otherwise
the curved breast could not dazzle you so, nor could
a smile run through the placid hips and thighs
to that dark center where procreation flared.

Otherwise this stone would seem defaced
beneath the translucent cascade of the shoulders
and would not glisten like a wild beast's fur:

would not, from all the borders of itself,
burst like a star: for here there is no place
that does not see you. You must change your life.2

-Rainer Maria Rilke
Rilke’s text (Mitchell, 1995, p. 67) is a rousing tribute to the transformative power of art. Even in the absence of its head, the statue of Apollo overflows with wonder and imagination. There is no face to behold. Still, Rilke finds a smile in Apollo’s hips and might in the shoulders. Otherwise the torso, we are told, would be nothing more than defaced stone.

As the text unfolds, we discover that it is not what the statue represents that constitutes the beauty of the poem. It is, rather, what the torso becomes in Rilke’s imagination that allows him to experience a sense of connection with a god cast in stone, a world beyond him. As he speaks to the art and it to him he begins to experience wholeness beyond fragmentation, beauty beyond destruction. The lack of a head does not detract from the transcendent quality of this experience. On the contrary, it seems to invite deeper contemplation and intimacy. As Rilke studies the masterpiece he is drawn not only to presence and absence in art, but also to continuities and discontinuities in his own life. His body is dramatically transformed through this reflective inquiry. His reflection culminates with an imperative uttered not by the poet but by the statue to change his life (Mitchell, 1995, p. 67). At the end of the day it is not art but poetic perception of art—the embodiment of aesthetic experience—that is the most humbling and redeeming quality of this lyrical interlude. Rilke rediscovers his sense of presence in the world as he becomes mindful of what the gods are telling him and responds in kind.

As I study this text I am reminded of my own imaginative encounters with the world: the clouds I spoke to as a child while laying on my back in the summer and contemplating the heavens; the shadows I chased at night while lying in bed; the scraggly, invisible cracks on walls that were transformed into wicked creatures with larger-than-life personalities. These kinds of imaginative vistas reflect a participatory view of perception. In Rilke’s writing the separation between subject and object is recast. The poet becomes the poetry that characterizes the sense of lustrous sensuality in Apollo’s incomparable beauty.
This sense of losing oneself is characteristic of the figure/ground connection. When we consciously focus on an object it is in the foreground of our imagination. But when we stop focusing intently, the object slips into the backdrop of our perceptual field, becoming part of who we are:

For instance, conscious attention is usually needed to make sense of rules of grammar, to expand vocabulary, or to discern the standards of acceptable behavior in a new setting. At some point, however, such learnings must fade into one’s fluid patterns of acting. Having to be conscious of the selection of each word or the construction of each sentence or the behavioral code of each setting would be completely debilitating. (Davis et al., 2000, p. 8)

Our perceptions are constantly zooming in and out of experience. When I read Rilke’s poem (Mitchell, 1995, p. 67) I find myself moving closer and closer into the poet’s mind, losing my sense of self and other. Perhaps you too had this sense when conversing with Apollo. Like Rilke, you may have found yourself in and out of text, embracing thoughts, images, and other bodies around you.

What is most fascinating about this perceptual interplay in Rilke’s poem (Mitchell, 1995, p. 67) is the role ascribed to art, specifically, how art mediates cognition. The majestic figure of Apollo looming over the poet becomes a field of energy beyond itself: it moves into Rilke’s body, the body of the text, and our bodies as readers as a vital life force. The effect of this presence is transfixing; it engages our entire being and asks us to re-examine our complicity in the world.

Sumara and Carson (1997) offer an analogy here between artistic production and educational inquiry: “Like aesthetic practices leading to the production of works of art, research is something
that is included in the complexity of the researchers’ lived experiences” (p. xvii). We cannot separate Rilke’s re/searching of art from his inquiry into his own life. Both are interconnected.

But what does this mean in terms of adult and higher education? One response is that Rilke’s writing (Mitchell, 1995, p. 67) asks us to consider how art calls us into being, that is, how art invites us to be mindful of the bodymind connection. *Art* in the sense that it is used here refers not only to visual and performing arts, but also *artifacts*—lyrical and embodied practices that serve as focal points for human relationships.

This begs the questions, What can we learn from an aesthetic view of instruction that will inform our senses of embodied pedagogy and curriculum? How might these insights fill spaces in our thinking, that is, facilitate a sense of interconnectedness in the presence of a headless statue or imperfect understandings of the classroom?

As educational inquirers, we are constantly trying to make sense of the world through fragmented knowledge. An aesthetic view of experience is important because it shifts the need for exclusively rational perspectives of our roles and responsibilities to ones that embrace spirituality, compassion, and beauty as alternative frames of reference for connecting with our life world. The significance of art, for me, is not to reify aesthetic knowledge but to embrace life-as-art. Being mindful of life-as-art means attuning myself to relationships that allow me to live lyrically and poetically through body, mind, and spirit.

One of the idioms I use to explore this line of thinking is the notion of artist inquirers as composers. It is an emphasis that is informed by Mary Catherine Bateson’s (1989) view of *composing a life*, a phrase that she uses to speak about “life as an improvisatory art, about the ways we combine familiar and unfamiliar components in response to new situations, following an underlying grammar and an evolving aesthetic” (p. 3).
What occupies my imagination is how teachers, researchers, and writers might learn to compose classrooms in ways that allow them to discover their sense of place in the world. And this, I suggest, is a reflection of how mindfully they are able to read and engage classroom artifacts and other bodies of knowledge. Our bodyreadings are not objective assessments of our life world, but expressions of our involvements with it. These commitments are constantly changing.

A challenge for adult and higher educators is to be mindful of the creative process in the moment and recognize that it is in constant flux. To say that we are composers is to recognize that we too are composed and composted through our living relations. Aesthetic inquiry is an organic process that invites us to discover "the shape of our creation along the way, rather than pursuing a vision already defined" (M. C. Bateson, 1989, p. 1). Opportunities to compose and be composed at each unfolding moment urge us to read life-as-art with care and compassion as well as joy and beauty. By developing our skills and sensibilities as bodyreaders we can learn to reconnect with the sensuous particularities of everyday living in and beyond our personal whims and subjectivities. Like Rilke, we can learn to confront headless figures in our existence and reclaim them as exquisite life forms.

Artful Spaces of Wonder and Joy

To appreciate the role of art and aesthetics in our lives, we may want to return to the image of the dancer/dance connection. I am especially interested in dancer/artists who have a deep connection with their performance art. There is something vital, something raw and seductive about the energy and passion of bodies moving from one space/moment to another, twisting and turning limbs and minds into a dynamic choreography of being and becoming. Is this not the same energy that inspires educator/artists to find meaning and connection in their compositions?
I had the pleasure many years ago of rediscovering the exquisite sensibility of spontaneous dance. The event in question was a variety show for seniors in a nursing home, an activity organized by my partner Kevin, a music therapist, at a local health care facility.

When I arrived at the nursing home, several spectators had assembled in a circle, waiting for the show to start, waiting for something wonderful.

And it did. As the show got under way Kevin turned the music of Saint-Saën's *The Swan* on and invited an elderly woman to dance at centre-stage with him. She was in her eighties, he thirty-something. Nonetheless, she had been a ballerina in her youth and her body re/membered dance, remembered the sense of beauty and transformation that connected her as a dancer to the dance. Very slowly, very stiffly, but gingerly and with great sensitivity, she responded to the strains of the music. The audience was left hanging, waiting for her to take one step, then another, one turn followed by a twist with Kevin’s support. The artistic intensity of the moment left onlookers breathless. We felt as if we were the dance, bending our torsos and tilting our heads, feeling the violins tune our skin and bones. There was beauty in the nursing home that evening that left nary a dry eye among spectators.

This is the kind of artistry invoked by Heron and Reason's (1997) participatory worldview with "its emphasis on the person as an embodied experiencing subject among other subjects, its assertion of the living creative cosmos we coinhabit" (pp. 291-292).

Added to this view is the notion that beauty can grow from absence and imperfection. Gaps are spaces of possibility, openings for discovering ourselves in others, for reconnecting our body to other bodies, some of whom are working alongside us on the same artifacts, building and believing in shared communities of inquiry. A gap is a space of freedom, a place for reinventing the world, for moving to a new dance location.
I was reminded of this connection at an academic conference where Murray facilitated a drama activity called *Filling the Space.*\(^3\) He invited participants to assemble in a tight, small circle and, as he talked, encouraged them to fill the space with their bodies. The adults in the group turned, twisted, and used their feet to trace a variety of patterns on the floor. As they danced, Murray continued giving them different directions. The directions influenced how people filled the space. Sometimes they withdrew from or turned around the outside of the dance centre, leaving different participants in and out of the space. These improvisations were enactments of the creative process in action. Everyone was improvising, learning to lay down paths of action and interaction, to compose ways of being individually and in concert with others. This was how an empty space was transformed.

This is why I identify aesthetic inquiry as a form of poetry. The poetry individuals create is not only a product of their imaginations, it is also the creative process in which it is embedded. Adult educator William Lowell Randall (1995) argues, "It is self-creativity, that one aesthetic endeavour in which, arguably, all of us are unavoidably involved: creating not only paintings, poems, or programs but also, and primarily, our own unique lives" (p. 25). One might assume, from these words, that aesthetic inquiry is some *thing* we do or build in the name of art. This is not the case. An enactive view of cognition reminds us that the artist/art, poet/poetry, dancer/dance connections are all pervasively intertwined.

It is worth emphasizing again that one of the influences on enactive theory was *autopoiesis,* a reference to self-making, self-organization. We reconstitute our subjective senses of self through our manner of living. This sense of self-organization is integral to the creative process as illustrated in this reflection:

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\(^3\) This activity is based on "The Space Series" exercises of Augusto Boal (1992, pp. 116-117).
I've been carrying a poem in my head for days, and yesterday a first wild shapeless bit of it came tumbling out, the raw beginnings. That's usually how it works for me—something gestates a while, seems to grow more insistent, as if the little magnet of an image that is at the core of the poem were hard at work, drawing meanings and associations to itself, gaining focus, preparing to be born . . . .

Of course, I'm participating; those are my fingers moving over the keyboard, but there's always some sense that a poem is a conversation between what the poet wills and something else.

(Mark Doty, 2000, ¶1-2)

"A poem can't be reconstructed out of will alone," Doty (2000, ¶2) says. That is why an aesthetic view of enactive teaching is not only a reflection of how well we dance. It is also a reflection of our relationships with the world. Our participation in these relationships will emerge according to our sensibilities as bodyreaders. The he/art of dancing lies in reading and responding to complex patterns of interaction in our lives.

Disorienting Lines of Aesthetic Inquiry: Bodyreading and The Gaze of The Text

Reality is transformed by what we are prepared to perceive. In the case of landscape beauty, it appears that we owe our preferences to those painters who first took it upon themselves to represent the landscape, and to show us what they discovered. It was not a case of the artist painting the beautiful but of the artist painting what he
perceived, which was later defined as 'the beautiful.' (Evernden, 1993, p. 48)

Environmental philosopher Neil Evernden (1993, p. 37), citing writer John Fowles, notes how western art resists our love of clarity. Although some of us may try to view art objectively, we are always wrapped around our perceptions like a dancer in her dance. Our perceptions determine our conceptions. Our bodies are complicit in the texts that we read and experience as beautiful.

Writer and curriculum theorist Madeline Grumet (1988b) eloquently illustrates this complicity in an essay entitled "Where The Line is Drawn." The text begins with childhood memories of her father's painting. Grumet details what the paintings included and excluded as a way to illustrate the zoned quality of her father's life and, more generally, to contemplate a view of teacher artists immersed in complex worlds of shifting subjectivities.

Grumet (1988b) plays with the notion of knowing subjects and teaching subjects, where the locus of inquiry constantly shifts. Where the line is drawn speaks to complex relationships between educators—teaching subjects—and the inscription of personal subjectivities into curriculum subjects. This word play disrupts subject/object boundaries and suggests that lines are shifting points of reference, like the subjects of a painting, from one space/moment to the next:

None of us, neither teacher nor artist, dwells on one side of the line or the other. Even though aesthetic objects and aesthetic experience are spread out on the other side of the boundary from the places where money, supper, and trouble are made, the artist regularly passes back and forth between the actual and the possible, and we are, all of us, commuters. (Grumet, 1988b, p. 79)
As a teacher, learner, and educational researcher, I am constantly rethinking my lines of subjectivity. Where do I draw lines between my body and other bodies of aesthetic inquiry—lines that mark presence and absence, inclusion and exclusion? The longer I teach, the harder it is for me to stay inside lines, the more I find myself moving backward and forward between, behind, underneath, across classroom relationships, turning my bodily thinking back on itself. My composing is not a recipe but a growing awareness of my place in the world, an emerging sense of "ecological literacy," to quote David Orr (1992).

Knowing where the line is drawn, I am discovering, means being aware of relationships around me, cultivating a sense of place and becoming mindful of the art that dwells in one environment versus another. This was a particular preoccupation for Mary Catherine Bateson's father, Gregory, well-known writer, environmentalist, and anthropologist with a remarkable breadth of research and professional knowledge in diverse areas of inquiry. His love of interdisciplinary thinking was, in part, a response to dualistic forms of thought that separate body from mind, human from nature. He explained in one of his works why he was a biologist: "What thoughts can I share regarding the total biological world in which we live and have our being? How is it put together?" (G. Bateson, 1979, p. 8). At the same time he acknowledged, like Grumet (1988b), that we cannot clearly see where the line is drawn because it is contiguous with all other lines of inquiry possible to understand and relate to a painting, for instance.

Although we cannot discern or fully comprehend all of the lines that constitute our frames of perception, Gregory Bateson (1979) did believe that we could cultivate relational forms of thinking in and out of the classroom as evidenced by his references to patterns that connect. Referring to his own higher education students in a biology class, he says, "Perhaps by coincidence, I faced them with what was (though I knew it not) an aesthetic question: How are you related to this creature? What pattern connects you to it?" (G. Bateson, p. 9). The underlying value of this relationship was not an intellectual imperative. It was, rather, much like
the tone in Rilke's text (Mitchell, 1995, p. 67): to move beyond one's personal sense of being in order to develop a sense of “recognition” and “empathy” (G. Bateson, p. 9) with other beings. This is a moral imperative based on a compassionate view of human beings in a more-than-human universe. This imperative is more than a rational need to know and understand the web of life. How we perceive ourselves is related to how we perceive and relate to other living beings.

One reason enactive thinking is so significant is that it allows us to see patterns as an expression of our complicity in the world. Our ability to compose ways of being emerges as we are composed by our participation in the world. Or, to state this slightly differently, our ability to assume and see a pattern does not derive from explicitly subjective or objective ways of thinking. Patterned thinking is itself a patterned phenomenon that embodies our participation in the world as living organisms.

This is why the connection between perceived and perceived is a fluid, life-altering experience. We do not merely represent what we see and take it. We re/create our understandings and experiences as each moment. We poeticize them through our participation in the world. This is the beauty of embodied inquiry as a form of self-organization.

When I consider the organization of living systems and the interplay between process, form, and structure I am reminded once again of my piano lessons as a child and my teaching as an adult. As a youngster I was unable to play the piano by ear like my mother. But with more experience and additional lessons, I seemed to form a new relationship with my body and the body of the keyboard and to feel my way through a song, tentatively at first, but eventually with renewed confidence. By late adolescence I had developed strong enough performance skills that I was able to play the piano at church and other public venues.
Was this emergent literacy a form of self-organization, allowing me to improvise my way in and out of song? Was my composing becoming a connection to and empathy with music as a way of being?

In my current position as teacher, I spend a lot of time thinking about enactive structures for creative and inclusive classroom inquiry and participation. I sometimes hear suggestions to the effect that enactive classrooms are unstructured. These comments usually mean that learning is entirely self-directed or that one form of learning is valid as another. Both of these understandings are misinformed. The more I study enactive theory, the more I am reminded that there can be no systematic learning without structure and no structure without a defining sense of organization. It is the interaction between form and structure that creates worlds of possibility and makes classroom inquiry a work of art and art a way of relating to others, a pathway of empathy and compassion.

So, one of the fundamental questions for adult and higher educators is knowing how to situate themselves in places where beauty can erupt passionately, poetically, and playfully. If aesthetic inquiry is a form of textual interplay, of crossing one line and another, then how do we invite beauty into the classroom in order to be mindful of the relationships on which it is contingent?

**Hands Encircling Emptiness: Re/composing Self and World**

Answers to these questions began to emerge during my second field interview with Lara. Our conversation focused on embodied inquiry in and out of the classroom: how, as artist educators, we read and perform bodies of knowledge according to constraints and possibilities of our relationships in the world.
Our talk was not directed towards the domain of the aesthetic. Yet that is what it came to include as we reflected on the meanings teachers and students ascribe to particular kinds of texts. Our readings of beauty flowed from our recollections of the seminar that served as the site of my graduate research and from the environment around us. Lara lives in an attic loft not far from campus. It is a whimsical location that offers a view of the Pacific Ocean and snow-capped mountains along the horizon.

As we discussed the location of Lara’s home and the objects in it we became mindful of our language and perceptions as a dance that were carrying us in different directions. Lara (personal communication, December 24, 1997) spoke about “nomadic travelling and travelling theory” and this reminded me again of the fluid and co-emergent dynamic between perceived and perceived—form, structure, and process. As our eyes wandered around the room, they took in different objects. I asked Lara about the legacies of these artifacts and their significance for her.

She described one piece as a simple favourite, a vase from a market south of Tripoli. Lara (personal communication, December 24, 1997) said it reminded her “of a line from psychoanalytic theory where Jacques Lacan speaks of a potter building a vase around emptiness. You get into that empty space and it’s like his hands are encircling the emptiness.”

I ponder these words once, contemplating their mystery and magic. It has been a long time since I first heard them yet their consonant lyrics and evocative imagery still tease my imagination. I contemplate the image of the vase with the hole in the middle and am reminded of another hole, the headless figure of Apollo. Like Rilke’s connection with the statue (Mitchell, 1995, p. 67), the simple, quixotic movements of hands encircling emptiness delight my aesthetic imagination.

Perhaps I am enchanted because I see a connection with university teaching and learning. The image of hands encircling emptiness is that it suggests classroom participation is as much a way
of being as it is a way of knowing and doing. The hands aren't particularly doing anything; they are outstretched. Yet their embrace announces an orientation toward teaching that might be interpreted as welcoming and inclusive. At the same time the hands provide a sense of boundaries within the emptiness. The language of encircling rather than circle suggests that the embrace is not a fixed posture, but a circulating, wandering movement that continues to move back and forth, maintaining the integrity of the circle and the space inside it.

As instructors and students, we are constantly confronting empty voids, embracing empty thoughts, wearing empty ideas. Individually and collectively, faculty face pressing questions about how to structure and shape knowledge in accordance with their values, actions, and beliefs. The need to encircle emptiness with the warm, sacred embrace of hands is not only a need to develop a sense of place in complex, fast-paced learning environments, but to understand how our movements evolve in particular directions to acquire a particular form—like a vase—that liberate and constrain ways of being. How we enter into classroom spaces reflects how we move through the world, what we think about pedagogy and curriculum, and what visions might be accomplished through enactive forms of teaching and learning.

This is how Lara and I travelled that day, back and forth from Libya to Vancouver, from a simple, unobtrusive earthy vase to complex questions about teaching, learning, and being, travelling back and forth across one layer of reflection and experience to another, connecting one body of knowledge to another through our bodyreadings. Perhaps that is how teacher/artists discover pattern by returning to lived experiences and backyard spaces that offer a sense of place in an empty classroom, an empty head. Perhaps our stories reveal ways of wondering and being Teacher, Researcher, Writer and Scholar.

Mary Catherine Bateson (1994) describes this process of back and forth movement as a spiral. In a chapter on improvisation she says, "The process of spiraling through memory to weave
connection out of incident is basic to learning, so that in this and perhaps other ways the text is a demonstration of its subject matter" (M. C. Bateson, p. 11). She says that a narrative can assume a variety of forms (M. C. Bateson, p. 11) and that there are many moments present in any experience (p. 14). Perhaps we write our lives not only in and across lines, but in twisting, turning, spiralling motions like the hypnotic movements of dancers. Perhaps it is in our twisting that we transgress lines of inquiry and reach out to embrace diverse ways of being.

Mary Catherine Bateson (1994) claims that it is across patterns of attention and distraction that we begin to discover ourselves: "There is a spiritual basis to attention, a humility in waiting upon the emergence of pattern from experience. The willingness to assimilate what has been seen or heard draws other life into increasingly inclusive definitions of the self" (p. 10). Again it is the creative process that opens spaces for reaching out and conversing with other bodies like Rilke does in his poem (Mitchell, 1995, p. 67).

*Teacher Will Make It Nice: Engaging Conversations With Wonder*

After Lara and I had discussed the vase covered in cobwebs I noted that we seemed to be discussing our embodied relationships with the environment. The vase was an example of a particular geographic and emotional location in her life. I asked her to reflect on other landscapes. She remembered that evening in Carolyn's seminar when the class had sat outside on a stretch of lawn on campus beside old-growth forest overlooking the ocean. I mused that perhaps space was not only the physical geography of a setting but the interplay of bodies dwelling with that setting.

As our conversation unfolded, it became apparent that our focus on space was a deeper analysis of aesthetics in education and that this had been an important layer of our experience as enactive inquirers. Not only did several participants in our seminar have arts-based backgrounds, but all
students were encouraged to draw on aesthetic forms of expression to explore and express the pattern which identified and connected their bodies to other ways of being. Students were invited to compose themselves into being through writing, drawing, drama, and other creative venues.

As Lara reflected on the significance of aesthetics in education, she identified her graduate-school learning with her prior experience as a schoolteacher in Japan. The following excerpt is taken from our December 24, 1997, conversation:

**Brent:** I'm wondering if the aesthetic is a stimulant that heightens our perception both of who we are and our surrounds?

**Lara:** You also get into the struggle of Whose aesthetics? It's okay for me that particular rose, the particular shade of colour, the particular perfume. Would that be the same for everyone? It's a cultural construction.

**Brent:** There is the cultural. However we define the aesthetic, perhaps that place of beauty, of deeply held attraction, is a potential space for learning and for entering into deep meanings with others.

**Lara:** I think so. It's interesting again how many things are being triggered when we go into the layerings of stories. When I think of ikebana, one of the stories that came to mind that evening [in graduate class] was going to my teacher's class [when I was in Japan]. There was a flower shop down below. She would send me off to get whatever the flowers were for the evening.

I arrived one time and she told me to get some gladiolas. I don't like gladiolas. I was planning to have some guests at my apartment in Japan. I wanted to have evergreens and roses.
I still remember her brief comment, "So you didn’t get gladiolas." She didn’t reprimand me but I still carry that. It’s almost like the psychoanalytic conception of the gaze. You’re imagining what someone is thinking that may not even be what they’re thinking. I’m still carrying that somehow, that I disobeyed my *sensa* when I went to class that night. Of course it was the exquisiteness of the ikebana that drew me in that evening. Here we are talking about aesthetics and the exquisite. That is what draws me into many different spaces and life experiences. It’s amazing how many other layers there are.

**Brent:** What you have been saying reminds me of the personal ways in which we interact with our environments and that for every individual who sees something exquisite, there is another who may not have the same gaze on the world. I also think of the distinction between the exquisite and the exotic and the literature in education over the past while about the pursuit of the exotic and how that sometimes serves to reify culture. So, when I think of the exquisite in formal education, I think of it as a place of attraction, a place of community building, a space that allures and is inclusive.

**Lara:** *Inclusive* in play with *exclusive.* Again you get into that site of tension. I think about those sessions in [the graduate seminar] that were probably rare sessions of bringing the exquisite into an academic learning environment. But how often I remember children saying as they left [school] at the end of the day and we weren’t quite finished, “Teacher will make it nice,” somehow knowing that when they came in the next day it would be there and it would be wonderful because that was always a part of my classroom teaching, that we should have a space that was exquisite.

**Brent:** Tell me how you did that.
Lara: I guess through children’s artwork and by that child saying, “Teacher will make it nice.” This was a little girl in my class in the oil companies’ school in Tripoli in Libya. I still remember her words: *Teacher will make it nice.* In her saying that there must have been an understanding that was important in our class, that our class be this space.

Brent: And was that the space of the classroom generally or space within the classroom that you’re thinking of right now?

Lara: A space within the class but the class as well . . . . I remember another situation where a young boy had been away ill for a week. He came back to class and of course the class had moved, travelled within that week. When he came back his eyes were just open in wonder. He thought that we had done this for him. I remember that was another special moment. It was special for him to enter this space and feel the wonder. That’s incredibly important for me and for the students that I work with, that we co-create a space that is wondrous.

I am struck by Lara’s words even today. Perhaps the educational value of aesthetics and arts-based inquiries is to call wondrous spaces into being, spaces rich with imagery, sensuality, and spiritual connections. Teachers, like poets, have the ability to invite inclusive and creative spaces by being mindful of how they read their landscapes.

To focus on art without understanding the relationships in which it is embedded is to minimize its performance value and thus to diminish our senses of wonder and connection with an educational text. The image of hands embracing emptiness is one that orients the performance even before it has started. It highlights a sense of unity by shaping fluid and complex elements of interaction. The elements are not fixed. They continue to evolve as art is read and reread across
time and space. The vase’s completion does not preclude it from evoking a rich and sensuous web of images. On the contrary, wonderfully complex stories and associations emerge from its ordinariness during my research conversation. These associations distinguish one art form from another.

Like potters, educational participants are challenged to make something from nothing, to reach beyond themselves, encircle emptiness, and transform open spaces into stimulating and productive learning environments. What emerges will reflect multiple ways of knowing, being, and doing through relationships with their bodies and the bodies of others. Bringing worlds into being is not an abstract, intellectual activity, but one that invites human participation in “a shifting web of meanings . . . fed with curiosity and spiced with danger” (Abram, 1996, p.ix). Emptiness is an invitation to move away from non-representationist views of knowledge toward other forms of living, lingering, and imagining. We are the art we embody.

Look now at the art in and around you and ask how it informs your teaching, your learning, and your sense of mindful inquiry and passion. Remember that a headless torso may yield breathtaking poems: a simple vase, a thousand stories. Speak to your art and it will speak back. Listen and it will change your life.
CONCLUSION

Reassessing Enactive Teaching in Higher Education
Conclusion: Reassessing Enactive Teaching in Higher Education

The purpose of my dissertation has been to develop a framework for enactive teaching in adult and higher education based on an embodied view of academic participation. Although Varela, Thompson, and Rosch's (1991) work is a scientific text, evidence of its educational value is confirmed by a growing number of researchers who refer to enactive pedagogy and curriculum. This application extends to drama education (Fels, 1999; Fels & Meyer, 1997; Linds, 1998, 2001, 2002; Wright, 1998b), mathematics education (Davis, 1995; Davis, 1996), reading and literacy (Sumara, 1996) education, outdoor education (Haskell, 2000; Haskell, 2001), and other areas of curriculum inquiry and instruction. In the time since I have been a doctoral student several new studies have been published that embrace enactive perspectives of education.

Notwithstanding this trend, particular references to enactive teaching and learning in adult and higher education, with few exceptions, are difficult to find. Until now enactive discourses in education have primarily been associated with departments of curriculum theory and teacher education. Teacher educators such as Davis, Sumara, and Luce-Kapler (2000), Dawson (1999), and Breen (2001b) have published enactive views of education. Their works offered insights and challenges for my own study.

At the same time my dissertation evolved out of a specific need, personally and in the literature, for enactive views of adult teaching and learning in higher education. This need surfaced at the masters level as I attempted to identify particular theories of learning with the actual life-story experiences of adult learners in a conflict resolution program. I became increasingly disenchanted with the unidimensional, often instrumental and prescriptive orientations of effective teaching and learning discourses. By the time I had completed my masters research, I
was turning toward holistic perspectives of classroom participation. My research eventually led
to enactive philosophy. It challenged computationalist models of cognition that privileged mind
over matter, a dichotomy that was prevalent in many constructivist theories of teaching and
learning I had encountered in graduate courses and fieldwork.

My entry into graduate school marked an important transition in my life as I began to shift away
from public school teaching and prepare for an instructional position at the postsecondary level.
This has been an incremental process. As a doctoral student I have continued working part-time
at the elementary level. When I wondered whether particular aspects of enactive theory were
pragmatic, I considered how students in grades four and five might receive them. My research is
the application of enactive theory to higher education, but it was my experience at the elementary
level that facilitated the inquiry you are reading.

In the early stages of my research, I reflected on my own teacher training and questioned
whether there were any similarities with my preparation as a future faculty member. In the
dissertation I described how one course assignment strengthened my inquiry into higher
education instruction by facilitating a series of observations and interviews with a faculty
member.

During this formative stage, I also turned to learners as a source of information about enactive
pedagogy. Elementary students, graduate learners, and participants in my field study played a
key role, formally and informally, in my inquiry. It was through my observations of and
interactions with learners that I began identifying elements and relationships of importance to
instructors. I was reminded that committed teachers must first and foremost be committed
learners.
Putting this view into action challenged me to listen more mindfully to classroom conversations and relate them to my emerging views of enactive discourse and language. These views included a focus on the role of language and gesture in the classroom. It was difficult to find a match for the wide range of movements and gestures of young children at the higher education level. For a long time one of my initial assumptions was that children's activities were more embodied than adult forms of learning. In my mind and in my field interviews I referred to the embodied participation of young learners and the disembodied participation styles of university students as a frame of reference for my self-development as an enactive teacher.

My perception was based on sound observation—children's bodies did perform differently than their adult counterparts—but I was privileging the role of experience in my analysis of classroom participation. Attention to the biological body in young children's learning reflects a need for concrete experience, an emphasis that is consistent with development learning theory (Piaget, 1959; Piaget & Inhelder, 1966/2000). This does not mean that (a) learning among same-age children is without variation, (b) adults do not benefit from active learning experiences, and (c) children's learning is more embodied than adult learning. What the experience of young schoolchildren does suggest is a need for holistic and ecological views of knowledge to account for complex participation styles in different instructional environments.

Not until I had challenged my presuppositions about the bodymind connection was I able to recognize contemplation itself as an embodied form of experience, an emphasis that is central to Varela, Thompson, and Rosch's (1991) understandings of mindful, open-ended reflection. This awareness awakened me to enactive teaching as a space of possibility and challenged me to honour diverse ways of being, including the participatory nature of language and thought in elementary and postsecondary classrooms.
I was then able to understand that my focus on enactive teaching was not so much about bodies, empirically speaking, as it was learning to live through complex relationships in the moment. This was indicative of a dynamic and relational view of self. Remember the discrepancies I saw between elementary and higher education classrooms in the body language of participants? I finally grasped that the outside world was a product of my interaction with it. Varela, Thompson, and Rosch (1991) argue that embodied cognition is neither wholly subjective nor wholly objective, but a middle way between the two. This reciprocal view of participation, drawing on Merleau-Ponty's (1945/1962) understanding of the body subject, is central to enactive philosophy.

Being mindful of the participatory nature of my perception not only meant reassessing my teaching perspectives, it meant challenging perspectives themselves as psychological constructs. I could pontificate on embodied views of cognition ad nauseum—and often did. But this did not allow me to be fully present with others and myself. For this to happen, I would have to immerse myself in tangled, co-evolving webs of action and reflection. The path I laid down with others would shape my teaching into spaces of possibility.

With this understanding my research questions about enactive teaching also shifted. Instead of an open question (What happens when we place the body at the centre of adult and higher education?), I identified two areas of inquiry that drew on my research experience and desire to be a better teacher. These became my primary research questions: (a) What do embodied views of cognition reveal about adult learning and self-development? and (b) How do adults' embodied perceptions of themselves and others support holistic understandings of teaching? These questions speak to the teacher I want to be. They have become as inseparable for me as the bodymind connection.
After many years of exploring enactive philosophy I have come to the end of my research. My dissertation is not intended as a recipe book of strategies but a series of reflective narratives that depict my struggles and successes integrating enactive sensibilities into my teaching. The themes I chose were embodied themes. I lived with them for many years during and after the field project. They demonstrate that teaching as embodied, open-ended reflection is a convergence of many relationships engaging spiritual, aesthetic, political, intuitive, and intellectual dimensions of human performance. How these relationships intersect is what distinguishes one instructional environment from another.

Making sense of classroom relationships is no easy task. Some of you may have been able to identify elements of enactive pedagogy in the dissertation that resonate with your experience. Others among you may have felt a connection but were unable to make sense of patterns that connected one relationship to another. Perhaps some of you even questioned the legitimacy of the relationships themselves and wondered how you would ever integrate them into your instructional contexts.

Having laid down a path in walking I feel a need to look back and see the marks left along my trail. This is a key goal of this chapter. However, in keeping with my initial research goals, I want to integrate my retrospective analysis with new habits of perception. I will do this by addressing the broader significance of enactive teaching and self-development. In what ways does enactive philosophy inform adult and higher education teaching?

How Does Enactive Philosophy Inform Higher Education Teaching?

There are three frames of reference I use when explaining the significance of my research to others. The first is learning and instructional theory. The second is educational change. The third is inclusive pedagogy. I will address all three before focusing on enactive teaching specifically.
Earlier in this chapter I spoke about my frustration looking for holistic models of teaching and learning in adult education literature while I was a masters student. The more I read the greater my consternation because of the narrow conceptual frameworks offered by popular learning and instructional theories. You might think that this is the role of theory: to elucidate a particular aspect of academic participation. Yet my experience and the experiences of adults in my field study highlighted examples of complexity-in-action that were under-represented in academic discourse. More disturbingly, there appeared to be tacit and sometimes explicit assumptions about the role of theory as a mode of representation that had little, if anything, to do with real-life experience. At times I felt like an alien looking for my home planet.

Enactive theory addressed my frustration by allowing me to unpack assumptions about cognition embedded in particular theories and highlighting the need for complex views of classroom participation. This is the first way in which enactive thinking informs higher education teaching. It provides a language and conceptual framework for challenging the bifurcation of social, collective narratives of teaching and learning and those that privilege the internal world of the psyche. This bifurcation has been the focus of much discussion in recent years as noted by Rosemary Caffarella (2000). The representation of teaching and learning as one way of being or another serves to promote methods of effective teaching that often fail to take classroom contexts into account.

Bruner (1996) identifies computationalism and culturalism as by-products of the cognitive revolution. Discrepancies between one orientation and the other are commonly explained on the basis of the body/mind problem to indicate which kinds of knowledge are privileged in education. Although this reference is useful for locating teaching and learning within a broader
philosophical context—one that is central to conceptions of self and other in Western cultures—it is based on a great deal of misinformation and rhetoric rather than critical scholarship. This rhetoric includes assumptions about dualism based on perceived similarities between Cartesian rationality and contemporary ways of knowing. This comparison often overlooks differences in historical contexts and ways of thinking. Different views of knowledge among cognitive scientists make it difficult for one school of thought to appreciate the views of others on the body/mind question. Some of those who reject the body/mind separation in principle end up replicating it in practice. Capra's (1996) analysis of mechanistic versus deeply ecological paradigms is a prime example. These are obstacles that I encountered while trying to develop holistic views of classroom participation in adult and higher education.

It is important to acknowledge the bodymind connection as one of many frames of reference for human complexity. However, it is questionable whether anti-Cartesian discourses transcend reductionistic views of cognition. It is as if their primary objective is to deconstruct the body/mind problem as an end unto itself rather than provide viable alternatives for understanding and experiencing embodiment as a way of living. In this environment the terms body and mind are used so inconsistently that they sometimes end up meaning very little.

Varela, Thompson, and Rosch's (1991) text also draws on similar lines of reasoning. They premise their argument with a critique of Cartesian rationality. What distinguishes their writing in part from other texts is that they are more successful in moving beyond Descartes to develop an enactive view of cognition based on an interdisciplinary analysis of embodiment. Their notion of open-ended, mindful reflection is especially refreshing and marks an important contribution to reflective teaching literature in adult and higher education. The idea of reflection as a form of experience is invoked but not adequately addressed by works such as Schön's (1983) view of the reflective practitioner.
Throughout doctoral studies I have heard many teachers and graduate students express concern about the gap between their instructional intentions and beliefs on one hand and their actions on the other. They feel a deep need to enact particular ways of being but are unsure how to move from thought to action. Enactive philosophy reminds us that the two are interconnected. We cannot change our minds without changing our ways of being and doing. This is a fundamental circularity that characterizes the enactive view of embodiment.

This view serves as a contribution to theories of experiential learning, including Kolb's (1984). The latter represents learning as a cycle. Accordingly, learners progress through different phases from concrete experience to reflective observation and experimentation to abstract conceptualization. It was a model that informed my sense of conflict resolution learning. Students in my masters research had been trained in particular skills that they applied to a variety of contexts outside higher education. They were called to reflect upon and experiment with different bodies of experience before they were able to integrate their knowledge and skills into their unfolding senses of self within particular communities of practice. Kolb's cycle helped to explain the transformation of learning through various stages.

In Kolb's (1984) analysis as well as Schön's (1983), however, reflection and action are still discussed as discrete realms of being. Enactive philosophy, by comparison, is informed by a participatory view of perception that integrates reflection and experience. This interconnectedness is central to open-ended, mindful reflection.

An important question for enactive teachers is how particular activities facilitate enactive ways of being. When, why, and how might one activity be better than another for strengthening students' understandings of themselves and others? What are the advantages and disadvantages of a particular activity for facilitating mindful, open-ended reflection among graduate students?
Answers to these questions will depend on instructional goals and purposes as well as the nature of the learning environment.

Haskell (2000) applied enactive philosophy to her study of an adventure education program. She focused specifically on interrelationships among outdoor activities, learning, and the cultivation of embodied awareness among her students. She argued that experiential learning cannot "be represented as a fixed event, but [must be understood] as evolving through a continual interplay of perception and action" (Haskell, p. ix). Like me, she identified this with education as a space of possibility.

If theories of adult teaching and learning are to meaningfully embody the complexity of lived experience they need to be based on ecological rather than reductionistic models of cognition that allow us to put espoused beliefs into practice and acknowledge how practices shape values, beliefs, and feelings. This was a critical insight that emerged from my research interview with Murray. The interplay between theory and practice is what facilitates a sense of embodied action as performance. Enactive theory offers a dynamic sense of praxis based on the bodymind connection and possibilities for mindful awareness. It reminds us that our thinking is never separate from but vitally interconnected with our unfolding and contingent experience of learning in process.


Enactive philosophy as a framework for educational change: Honouring lived experience in classroom discourse.

A second area in which enactive theory has shaped my understandings of higher education teaching is in relation to discourses of educational change. A compelling motivation for returning to graduate school in my mid-thirties was to challenge my instructional beliefs and strengthen my classroom practice. One of my most transformative learning experiences at the masters level
was to shift from an objective to subjective research orientation. The notion of multiple intelligences (Gardner, 1983) is one that also figures prominently in the notion of instructional perspectives. There is, Pratt (1998) argues, "no basis for assuming a single, universal perspective on teaching adults. Both the philosophical and empirical evidence argues against it" (p. 3). Each of us as teacher/researchers brings diverse frames of reference to our views of the classroom and our commitments within it.

Safeguarding diverse epistemologies can be a real challenge in academic and educational cultures focused on standardized learning and teaching. Over the past 2 years public school educators in my home province have been asked to accept district accountability contracts, school improvement plans, standardized tests, parental surveys, and other measures designed to monitor and regulate school performance.

Accountability is vital in teaching. Yet the two languages of prescription and multiplicity evoke radically opposing values and mandates for educators to improve the world in which they live. Educational change in one context is the application of particular learning and instructional outcomes. On the other it is a way of being. Aoki and Shamsher (1991) invite us to seek a middle way between curriculum-as-plan and curriculum-as-lived (p. 1).

I am bothered by a lack of consideration for self-change and self-development in instrumental discourses of progress. Boyer's (1990) call for an enlarged view of scholarship identifies organizational change and innovation with individual growth over time. The university of the future in his view should self-renew itself at different levels that "dynamically interact, forming an interdependent whole" (Boyer, p. 25). These changes include shifts in thinking as well as systemic changes on campus. They are based on an imaginative reconceptualization of faculty roles and responsibilities that include possibilities for participating differently in higher education.
In a paper entitled *Educational Theories of Educational Change Within Higher Education: Robustness in the Roman Ruins*, British educator Jack Whitehead (1998) relates his development as a scholar to a fundamental need for academic freedom on campus. He argues that this need is threatened by oppressive power structures that seek to control individual ways of being within the university. He defends personal narratives of experience as a basis for countering institutional discourses of power, pressure, and intimidation. He also writes about the importance of imagination as a framework for generating educational theory. This includes reconstructions of past, present, and future. He concludes by proposing a new discipline of "educational enquiry . . . for educational change in higher education in which individuals create their own living educational theories as forms of improvisatory self-realisation" (Whitehead, p. 11).

When reading Whitehead's (1998) text, I am reminded of a pressing need to honour, reassess, and integrate the development of teacher selves into a wider view of educational change and faculty development. One reason enactive philosophy has enchanted my imagination is because it stresses that we are the worlds we create through our interactions with others. The enactive view responds to what Poplin (1996) describes as "pedagogy compatible with life" (p. 389). A view of teaching as a living practice, in the case of enactive philosophy, is related to self-organization in living systems. Who we are as individuals cannot be separated from institutional identities. Attention to the well-being of faculty and students is consistent with Dewey's (1916) claim that "education must first be human and only after that professional" (p. 191).

To the extent that it acknowledges change as an integral dimension of human existence, enactive philosophy is influenced by ecological conceptions of renewal. The view of possibility that it proposes resonates with the thinking of Goodlad (1999), Sirotlnik (1999) and other educators who distinguish educational renewal from educational reform. Unlike Aoki and Shamsher (1991), they reject the language of instrumentalism in favour of curriculum-as-lived. Goodlad (1999) explains:
The language of reform carries with it the traditional connotations of things gone wrong that need to be corrected . . . This language is not uplifting. It says little or nothing about the nature of education, the self, or the human community. Through sheer omission it dehumanizes. Prescriptions are given; corrective actions are to be taken by those identified as accountable (who are not the reformers but are those to be reformed). (p. 574)

Renewal, by contrast, is about "the process of individual and organizational change, about nurturing the spiritual, affective, and intellectual connections in the lives of educators working together to understand and improve their practice" (Sirotnik, 1999, pp. 607-608). It is an organic and ecological conception of change based on relationships between an individual and wider social and educational contexts.

Look at the notions of renewal and reform again. Here we are confronted with what appear to be two opposing sets of assumptions about social change in education. Is there a middle way between the two? When I think about how I might renew the university as a social institution, I am presented with what appear to be a broad range of choices that stretch far beyond my own biological and phenomenal body. When I allow myself enactively to connect with teaching, however, I recognize that my participation in the world through my embodied perception is already contributing to the change I imagine. Perhaps the middle ground I seek is the possibility to bring forth worlds by remaining mindful in the moment.

Enactive philosophy as a framework for inclusive pedagogy.

A third and final area in which enactive philosophy has informed my sense of higher education teaching is around notions of inclusive pedagogy. This contribution draws on a need for wider
views of classroom participation and dynamic views of educational change. I use the term *inclusive* because it is one that is increasingly popular in educational literature and views of teaching. It is also a term that I have used traditionally to reflect on my classroom participation. Yet even as I speak the term I am reminded of discourses of power, privilege, and difference that are at odds with inclusive practice.

In the public school system inclusion is linked to classroom needs and learning resources. Often it refers to Special Needs students. The ideology that sustains inclusion as a mandate for public schooling is a functionalist view of socialization (Burrell & Morgan, 1979) based on the importance of nurturing as a primary orientation for teaching children.

In graduate studies, however, I am presented with radical humanist and structuralist (Burrell & Morgan, 1979) views of inclusive pedagogy that emphasize a need to transform oppressive social structures. Inclusion in this context is associated with academic freedom and the need to value marginalized social groups in higher education. The language of inclusion is linked to a larger view of individual and collective rights. It often draws on discourses of reform and anti-oppressive pedagogies (Freire, 1970/2000). Rather than a normative process of enculturation, education is perceived to be the practice of individual freedom (hooks, 1994).

At different stages in my teaching I have been locked into one or another discourse, reflecting a Nurturing or Social Reform perspective of inclusive practice. Enactive philosophy has challenged me to strive for a more imaginative understanding of inclusion based on my complicity in complex events. The enactive view challenges notions of inclusion either as a decontextualized set of political beliefs or, alternatively, as a decontextualized humanistic view of education.
Because teachers and learners live in communities they share responsibility for creating a world that is just, caring, and respectful of others. This is what characterizes a relational view of self-identity based on open-ended, mindful reflection. Caring communities do not develop in a vacuum. They develop by living in the moment with others, engaging bodies, minds, and spirits freely and creatively. Holistic classrooms require holistic social practices and modes of thought. Inclusion also is a path laid down in walking.

To the extent that inclusion is directed toward human potential, it is about enabling teaching and learning as virtues. The capacity to live a virtuous life in Ancient Greece was restricted, Arendt (1971/1977) says, to gods and philosopher-kings. The latter became virtuous by developing the ability to contemplate eternal truths behind appearances in the world around them and express those truths in speech. Yet in their quest for immortality philosophers such as Plato overlooked the materiality of their biological and immortal bodies. For Socrates, by comparison, the work of the mind was embedded in everyday living and activity:

The meaning of what Socrates was doing lay in the activity itself.
Or to put it differently: To think and to be fully alive are the same, and this implies that thinking must always begin afresh; it is an activity that accompanies living and is concerned with such concepts as justice, happiness, virtue, offered us by language itself as expressing the meaning of whatever happens in life and occurs to us while we are alive. (Arendt, 1971/1977, p. 178)

Arendt (1958/1998) emphasized the importance of action and speech because they allow us to see and re-imagine ourselves with others and to develop our participation skills as citizens. Opportunities to live in relationship come not only from how we think but how we actively transform the world that solicits our participation.
There is similarity between this account of Ancient Greece and participation in today's postsecondary institutions. Possibilities to develop as teachers are related to possibilities for reinventing classroom selves in dynamic communities of co-inquiry. As I read Arendt's (1971/1977; 1958/1998) philosophy, I cannot help but wonder if this is not a more enactive view of inclusion than contemporary discourses of education that speak about classroom participation objectively or subjectively without striving for a space of togetherness. To the extent that she investigates embodied cognition in action, her work is another frame of reference for social, political, and historical expressions of enactive thinking and living.

*Extending Enactive Views of Education: Implications for Good Teaching*

When I first became a teacher I believed that my classroom participation was an objective science with a clearly defined set of methods and procedures that I could use to plan, implement, and evaluate learning. I believed that the more knowledgeable and proficient I became in certain strategies, the stronger my teaching would be. I also believed that who I was and what I did as a teacher were separate concerns. That was not to say that I did not care for my students. I cared deeply. However, my attention focused on mastering competencies that would allow me to serve my students better.

These beliefs reflected a transmission view of knowledge that was part of my instructional perspective at the time. They also reflected the culture of education in which I worked. Attention to effective instructional strategies in public schools was initially based on behaviourist views of learning. The more effective the strategy, the better the opportunity to intervene in a child's learning. With the introduction of constructivist learning theory, teachers were encouraged to use strategies that would allow them to access students' meaning-making systems and develop connections with learners' personal experience. Although guided by different values, behaviourism and constructivism both reflected critical assumptions about good teaching.
Teaching in both instances was usually perceived to be something that teachers did—by observing behaviour or accessing the psyche—in order to facilitate learning. This was an instrumental view of education based on the separation of body and mind.

Enactive philosophy, by contrast, emphasizes a more holistic vision of teaching based on possibilities for questioning and re-evaluating my senses of complicity in the world. Self-inquiry in this context is crucial for one's personal and professional development as a faculty instructor:

When I do not know myself, I cannot know who my students are. I will see them through a glass darkly, in the shadows of my unexamined life—and when I cannot see them clearly, I cannot teach them well. When I do not know myself, I cannot know my subject—not at the deepest levels of embodied, personal meaning. I will know it only abstractly, from a distance, a congeries of concepts as far removed from the world as I am from personal truth. (Palmer, 1998, p. 2)

My study contributes to enactive views of education by elaborating on the significance of self-inquiry as a focus of reflective teaching in adult and higher education. It challenges conceptions of good teaching as the instrumental application of knowledge geared toward predetermined learning outcomes. Enactive teaching offers a more dynamic view of instructional purposes, processes, and outcomes. Let's consider each of these as a way to rethink good teaching.

Aims and purposes of enactive teaching.

It is not coincidental that I chose to emphasize enactive philosophy rather than theory in my research study. Philosophy as the search for wisdom is an attempt to better understand ourselves
so that we may live well with others. Philosophies offer a sense of purpose and direction to our lives, allowing us to integrate our knowledge of the world around us. Sirotnik (1999), referring to change, says, "There can be no renewal, whether of individuals or society, without purpose, without some sense of fundamental values about what is better or worse in individual and collective living" (p. 607).

One reason I am drawn to enactive philosophy is because it invites me to reconsider what matters as a teacher and learner. This was an emphasis that Carolyn, the graduate seminar instructor in my field project, asked her students again and again when reflecting on enactive views of knowledge: "What matters?" What matters for enactive philosophers? Why should higher educators care?

An enactive view of teaching might be stated thus: The purpose of teaching is to become aware of one's place and human condition in the world with a view to strengthening classroom communities through ongoing action and reflection. Self-knowledge is not the primary goal of education. However, until faculty instructors have some insight into their own learning and development they cannot participate as co-learners with students. When they do not actively engage in self-inquiry they cannot assume that learners will. Conversely, self-inquiry may serve as a model for social change outside the classroom.

Honouring enactive teaching as a framework for self-transformation as well as social transformation means balancing complex ways of being. Capra (1996, p. 9) says that in order to honour this balance we need to expand our integrative values, that is, our senses of being with others while attending to our personal needs. When deep ecological awareness becomes part of our everyday perception, he says, "a radically new system of ethics emerges" (Capra, p. 11). What we think and value influence how we act. This is consistent with Pratt's (1998) notion of an
instructional perspective as a complex web of actions, intentions, and beliefs. It is also consistent with the notion of teaching as a reflective practice. Our perceptions become lived ways of being.

It would be misleading to assume that all enactive teachers share the same values and just as misleading to assume that enactive teaching is value-neutral. In my interactions with faculty and students I have come to recognize individual frames of reference for being and becoming enactive educators. At the same time there is an indication of shared commitments among many enactive educators. As a result of my research, I have identified six values that appear to be central to enactive views of teaching:

1. **Contemplation.** A life of enactive teaching is a life of contemplation based on mindful reflection. I characterize contemplation as a value to emphasize a commitment towards learning, discovery, and open heart/open mind. Contemplation highlights the discipline of awareness and identifies it as an integral dimension of self-transformation.

2. **Interrelatedness.** Enactively speaking, classroom participants can only realize their potential as individuals within a larger web of relationships. At a macroscopic level this is the web of life. However, there are smaller networks of connection that we continuously engage in order to participate in the world, develop meaningful relationships, and create a sense of identity with other classroom participants. Notions of interrelatedness stem from connections among structure, form, and process. In an enactive view of education we not only see relationships around us; we create them.

The value of interrelatedness has two sub-values. The first is collaboration and partnership. An enactive learning environment is one that facilitates nurturing relationships with others as an integral focus of co-learning and inquiry. These relationships include student/teacher, teacher/teacher, and student/partnerships. During the course of my research I have become
aware of a need for stronger partnerships among schools and universities to share goals, information, and perspectives related to teaching and learning. This is consistent with an enactive view of educational participation.

Balance is another value derived from interrelationship. One image of interrelatedness in the history of Western philosophy has been the great chain of being (Lovejoy, 1936), an image that assigned everything from man to God, a place in nature's hierarchy. Enactive philosophers acknowledge the uniqueness of different beings but do not privilege this through hierarchical language. The place in which we find ourselves is the result of a dynamic history of structural coupling. This process unfolds horizontally as well as vertically in time and space.

It is important for enactive teachers in higher education to ask not only what they need to do in order to establish balance in classrooms, but also how balance might emerge from self-organization and awareness. Teachers, like other living organisms, interact with their environments continuously, making decisions about what matters and how to achieve balance in the day-to-day complexities of the classroom.

In short, interrelatedness raises questions about complicity and complexity. It challenges us to be aware of what we privilege in our fields of perception when organizing lessons and attempting to meet the needs of diverse learners with conflicting values, backgrounds, and cultures.

3. Acceptance. Sandy Dawson (1999), a mathematics educator, describes enactive views of education as "becoming aware of what you are doing without judging it" (p. 148). This might raise questions about instructional tasks such as judging the viability of instructional lesson plans and the strength of student work. Acceptance as it is invoked here, however, is about honouring each classroom participant as an integral member of the learning community. It is
also about valuing love as a primary condition for living in sheer togetherness, a theme highlighted in enactive writings.

Acceptance is genuine respect for classroom participants based on diverse, imperfect, and incomplete knowledge, skills, and backgrounds that teachers and learners bring to education. It challenges higher educators to start with who we are now as a basis for learning. During my field project graduate students noted how non-judgmental Carolyn was. This was a value that they identified with her as a person. It is also one that characterizes enactive teaching.

4. **Spontaneity and Improvisation.** Enactive theory is a theory of dynamism, of action and energy and movement based on the transformation of living systems. Transformation makes growth and renewal possible. Spontaneity and improvisation are values that allow us to enact embodied ways of living in academic settings. These two values emphasize the importance of letting go and risking chaos in our search for balance, harmony, and wholeness. A pedagogy of improvisation requires multiple opportunities for learning. It draws on the senses and emotions as well as imagination as catalysts for personal and collective transformation.

5. **Resilience.** One of the etymological origins of embodying was 'to embolden,' an association derived from an earlier term *enhardy* (Weekley, 1921/1967, p. 503). We cannot speak about emboldening without speaking about courage and resilience. Enactive teaching is hard work. It is messy, ambiguous, and highly disruptive. Self-organizing classrooms are classrooms that run a gamut between fear and confusion on one hand and confidence and organization on the other. Being resilient is about acknowledging teaching and learning as cycles of ebb and flow, wounding and healing, pain and joy. These are enactive forms of participation that engage spaces of possibility.
6. **Sustainability.** This value infuses all the other values. Enactive ways of living are only possible in self-sustaining environments. Although teaching and learning are in constant flux we need to ensure that the structures that allow education to flourish remain in tact. This means honouring the legacies that have enabled universities as institutions to become what they are today. It also means safeguarding democratic values that make self-organizing forms of participation possible in a social world. Educators as stewards need to build bridges and relationships that will guarantee the longevity of the university as a social institution. Ensuring sustainability means thinking outside the box and strengthening ecological thinking and ways of being.

These six values are integral to the aims and purposes of enactive teaching. These purposes in turn inform instructional processes and outcomes.

*Processes of enactive teaching.*

Enactive instructional processes are as important as the purposes in which they are embedded. Yet the processes are often misunderstood and therefore misrepresented by those who are unfamiliar with enactive teaching.

There are two reasons for this confusion. Because enactive theory challenges objectivist and subjectivist epistemologies, some educators take this to mean that there is no structure to enactive teaching and therefore that one instructional process is as good as another. This is one misconception. It comes from a lack of understanding about the configuration of structure, form, and process in living systems. Our biological and reflective bodies as teachers identify us as one kind of structure versus another. The processes we follow in the classroom will transform those structures. However, the transformative nature of teaching does not dismiss the need for
thoughtful planning. Rather, it requires a sensitivity that will facilitate the changes we are seeking and an acceptance of plans being reorganized by our classroom participation.

A second misconception around process is that embodied teaching demands sensory forms of experience. As often as possible teachers should provide opportunities for students to learn through multiple intelligences and sensory experiences that will provide opportunities for adults to engage the bodymind connection. However, providing first-hand experience of a phenomenon may not be possible or realistic on campus and in virtual learning communities for a variety of reasons, including time. So, instructional process also needs to focus on sensualizing student reflection through other forms of experience. Students may not be able to climb a mountain in order to understand mountain climbing, but perhaps they can be invited to re-create that sense of experience through other forms of embodied inquiry. A challenge here is to acknowledge imagination as a form of sensory experience and to consider how that experience might be integrated with reason, emotion, and intuition.

So, how might enactive instructional processes be conceptualized in enactive higher education teaching? First, they are dialectical. They emerge through the co-emergence of body and mind as well as the co-emergence of instructors and students. Knowledge is not located in a single person or location; it emerges in the flow of action and activity across classroom relationships. It is important for teachers to balance individual with group activities that allow for this interaction. Second, enactive processes are performance-oriented which is to say that (a) they are based on a participatory view of perception, and (b) a range of learning performances can dramatically enhance thinking-through-activity. Based on my research and readings, a strong case can be made for the use of creative arts as catalysts for enactive teaching and learning. Other activities, including sports and play need to be studied as venues for developing student skills, identities, and imaginations.
The third and final quality of enactive processes is that they are **self-reflexive**. This relates to the value of contemplation. Self-reflexivity acknowledges a connection between what we think and how we participate in the world. Questioning is an important framework for reassessing individual actions, intentions, and beliefs with others. The questions are often cyclical. They begin with an initial focus. This focus is explored from various perspectives and through different activities before it is pulled back and re-examined. Reflexivity allows teachers to engage spaces of possibility by challenging the limits of their thinking.

**Outcomes of enactive teaching.**

In my research I have seen more emphasis placed on the purposes and processes of enactive teaching than its outcomes, often because process is perceived as product. At the same time Carolyn, the field instructor, described instructional artifacts as objects that speak to us in particular ways. This is an emphasis derived from ecophilosophy and phenomenology.

One area that enactive teachers in higher education need to address more methodically is the evaluation of learning. Students and instructors in enactive classrooms, it can be argued, must necessarily reassess their knowledge in order to understand their complicity in particular relationships. However, university students need to be given systematic feedback in order to progress from one learning stage to another. Students in Carolyn's seminar were also encouraged to give one another feedback while working on class assignments.

A key question for faculty is which kinds of feedback will facilitate the kinds of critical and creative learning that may be expected in enactive instructional environments. There needs to be a distinction between formative assessments that evaluate student efforts towards particular learning outcomes and summative evaluations that result in final letter grades. Evaluations also need to take into account the semester system and adjust expectations for student development.
accordingly. At times a compressed timetable may not be amenable to enactive pedagogy. Students need time to develop authentic forms of learning that combine opportunities for self-inquiry with opportunities for collaboration.

Evaluation is often a challenging area for new and experienced instructors. Lara (personal communication, December 24, 1997) said that when she began teaching university students she would ask many of them to rewrite assignments: "Rather than giving a low mark, I would request a rewrite. And yet I questioned myself. How dare I ask someone to rewrite themselves as we do each time we write." I too struggled with evaluation when I taught adult education students. I wanted to nurture their self-development and transformation while providing open and constructive feedback. One of my tendencies was to write copious notes on assignments that may or may not have been well received by students. If we value enactive learning, we need to allow students to express themselves freely and creatively while recognizing the tensions this will create around evaluation. One way to address those tensions is to make our methods of evaluation as transparent as possible and to systematically re-evaluate those methods.

This is an overview of my dissertation and the purposes, processes, and outcomes that characterize enactive teaching. I suspect that my text has raised as many questions as it has answers. This is not surprising given the phenomenological orientation of my research and its emphasis on education as a space of possibility. This space "puts into question desires we may have, as educational theorists and practitioners, to get the curriculum 'right,' 'straightened out' once and for all, for such desires require a basically disintegrative, analytic act aimed at rendering education a closed question" (Jardine, 1998, p. 73). An education of possibility is an education of risk and ambiguity, not a closed, but a fluid, shape-shifting question.

How, then, might we apply the lessons of enactive philosophy to become better, more holistic teachers and learners? This question invites others:
How do we bring the conceptual understanding of the biology of cognition to people who are not specialists in cognition? How do we shift our behaviors and our institutions such that basic humanness, as understood in this view, is restored? We believe this can be accomplished through evoking understanding that happens in the dynamics of experience. (Bunnell & Forsythe, 2001, p. 159)

This is why I found my conversations with graduate students so engaging: because our interactions with one another created a dynamic sense of co-inquiry. We were reinventing ourselves in the moment. Murray spoke about graduate school as a space for making connections with other people and ideas. Gayle and Liz described their connections with the environment. And Lara embraced her academic participation as a performance that energized and directed her relationships with others.

How we experience enactive philosophy will depend on our classroom relationships. Reflecting on her participation in Carolyn's seminar, Lara (personal communication, December 24, 1997) said that much of the learning was about whether or not as human beings we were acting in ways that were sustaining the planet. Shortly after she enrolled in Carolyn's seminar, Zoë (personal communication, October 6, 1997) was able to name this ethic as a compelling frame of reference for her learning:

I wrote to my friend who is a mathematician. You'll be so proud of me because I'm taking a science course. It's about how enactivism is related to education. It's something very new for me. I think there's some spiritual element to enactivism that is crucial that I've been looking for in the academy and haven't found from my teachers. Capra says that ecological awareness is spiritual
awareness. That's what I'm looking for, how to incorporate that into my studies. It's not going to be an abstract thing, it will be a material thing: to make spiritual awareness material.

This is not unlike the emphasis in Kidd's (1973) text. Anything less than a holistic pedagogy of being, becoming, and belonging, he seemed to realize, would undervalue our callings and creative energies as a people. For, at the end of the day, the great lesson of enactive education is the possibility to transform body, mind, and spirit.
Coda

Earlier in my work I used the image of dancing as an analogy for enactive research. As an educator, I am always re/searching and re/assessing my classroom practice. Enactive philosophy has invited me to experience that practice as an embodied form of participation in the world.

Learning to dance has been frustrating at times. I suspect this is the case for many teachers. For all of the pomp and circumstance that we assign to our educational goals and priorities, we often fail to live up to our own standards and expectations. Instead of dynamic ways of living, we often cling to fragmented fictions that pass as pedagogic performances in graduate and undergraduate classrooms. My dancing leaves much to be desired. Yet the desire to dance serves as a compelling frame of reference for my personal and professional development.

When I retrace my journey I realize that one of my greatest challenges was learning how to dance research into being. As I immersed myself in enactive philosophy, I struggled with how to write enactively. I voiced this struggle when I began writing the dissertation:

*I want to settle my writing and shape it, but its shape is elusive and unsettling. Even as I organize my thoughts they move, slipping through fleshy pores of imagination into other places. What I wrote yesterday is not the same as it is today or will be a few moments from now. My body and the body of the world have shifted. Their alignments have changed, revealing geometries that slide in and out of focus like orchestrated refractions of light rebounding off the walls of an agitated kaleidoscope. As I slide from one location to another I enter worlds that encircle my own,*
bodies that I sense but do not see, voices that I hear but do not comprehend.

I kept questioning my interactions with the dance, rather than allowing myself the freedom of laying down a path while drifting. As ardently as I wanted to reinvent myself as a dancer, I also fought feelings of fear and uncertainty. The need to let go often collided with my senses of detail and perfection. The more I wrote, the more dissatisfied I seemed to become.

Yet there were moments when I felt the soft, sensuous embrace of outstretched hands, the pointed twirl of upturned heels, the stalwart thrusts of overhead gyrations. While I was formulating plans for doing teaching and research, I continued learning to be a teacher/researcher. For all of the words and ideas I wanted to compose, I was also composed by the dance.

Ten years ago if you had told me that I would be learning to read my body for a doctoral dissertation I might have chuckled. Ten years ago it would have been difficult to value my embodied subjectivities as performance tropes for pedagogy and curriculum and to speak about teaching as dance. To the extent that I was mindful of my body it would have been the body of a much less mindful teacher.

No more. With every breath, every fear, every dream I am reminded that my vision of the university classroom is one that is integrally connected to who I am as a person: a complex body with many voices and perspectives, a sense of language, and a history of experiences enacted with others. These are my embodiments. These are ways of being that have transformed my research about living into research-as-living, a much less crafted but engaging path between art and artifice, peril and possibility. In my maturity I have found something vital, something generative and alive, something strong and enduring. After years of teaching outside my body, I
am retracing my steps to re/read and reinvent my presence in the world, to feel rhythms and cadences that sensualize my imagination.

Dancing, for me, has become a way to strengthen classroom relationships and communities. Lara (personal communication, December 24, 1997) indicated that connections that emerge from those relationships are more important to her than the instructional content of a course.

A year ago I had an opportunity to experience a dance that invoked a sense of community for me. I was attending a workshop by Ann Schulte and Anne René Elsbree (2003) at the *First International Conference on Teacher Education and Social Justice*. Workshop participants were invited to stand shoulder-to-shoulder in a circle, creating a space of intimacy and belonging.

One of the presenters served as a facilitator for the activity. She explained that she would read out a series of statements. If the statements did not have any significance for us, we were asked to stand still. If we identified ourselves with a statement we were asked to take one step backward, removing ourselves from the circle.

The facilitator scanned a paper before reading its contents slowly and purposefully. The group listened without moving and the integrity of the circle remained intact. As new points were introduced, however, one person then another stepped outside its boundaries. Participants who moved were invited back into the circle before a new statement was read.

The activity unfolded gradually like a dance: rhythm by rhythm, beat by beat, step by step. The facilitator's voice punctuated the dance, guiding shoulders in and out of contact, starting, stopping, and redirecting the flow of bodies around her. I felt the dance in my own body, I experienced the sanctity of the circle broken and restored.
I did not know most other participants, although they shared a place in the circle with me. When they moved I moved, adjusting my shape to their shapes. Together we contracted and expanded like a primordial heartbeat. I was me and not-me, an actor caught in a more-than-human drama of separation and connection. Something vital, something visceral called my body, leaving me vulnerable in the presence of strangers yet drawn into their dance.

Statements that were read to participants were not value-neutral but markers of identity, privilege, and normativity. The shifting rhythms of feet spoke to a wide range of languages, ethnicities, sexual orientations, genders, research interests, and academic affiliations among workshop participants. All of these subjectivities had danced in our beings before we entered the circle and attended the workshop. But through the w/holes of the circle our dancing was reshaped and reawakened. For a few moments our positions in and out of sequence paralleled patterns of inclusion and exclusion that separate body from mind, self from other, and student from teacher in classrooms.

It was a short dance lesson but one that I will remember.
Bibliography


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Appendix A:

Interview Protocols
Enactive Teaching in Higher Education:

General Interview Directions

1. I would first like to check the following information:
   Your name:
Pseudonym: Phone:
E-mail:
Fax:
   How do you prefer to be contacted?
   Is it alright if I contact you after my field work is over if I need to clarify a point or require further information?

2. The purpose of my research is to learn about enactivism as a framework for pedagogy in higher education. I will focus on participants’ emerging conceptions of teaching and learning. Field data will be gathered and analyzed from a variety of sources including in-class observations, out-of-class interviews, a focus group, and written reflections.

3. Both of the individual interviews and the focus group will be tape-recorded and transcribed. Please try to speak loudly and clearly and remember that other background noises, including body movements, may influence the quality of recording.

4. Today’s interview will last about 45 minutes after the directions have been explained. It will not exceed 1 hour.

5. Feel free to respond on a level that is comfortable to you. Please try to be as open, honest, and detailed as possible when expressing your thoughts. If you participate in the focus group you will be expected to disclose your responses to other learners.

6. You may request to read and edit the written transcripts that emerge from the interviews. Please let me know as soon as possible if this is your intent; otherwise, I will assume that I may use the data that has been recorded. I will also do some minor editing when transcribing and rewriting the raw data. Such editing may consist of deleting vocal pauses or hesitations, making verb tenses consistent, or deleting repetitions, unless there appears to be a valid reason for keeping these intact as spoken. In the final product of my work it will be necessary to reconstruct information using a variety of data, including the interviews. Such reconstruction will require analysis and interpretation on my part. I will ultimately need to make choices about which information to include and how to best
represent it. In some cases, for example, I may wish to combine information from different parts of the interview.

7. Most of the questions I ask will be open-ended to allow you to share your perceptions of teaching and learning.

8. Please ask me to repeat a question if you do not understand it or require clarification.

9. I have prepared several questions today. These are intended as a framework only. My hope is that the questions will lead us into a conversation. Please feel free to share any thoughts which you think are important about teaching and learning in the course or about enactivism generally. At times I may also share my own thoughts as part of the conversation.

10. After this interview has finished, you may have other thoughts which you wish to share. Please feel free to submit any follow-up reflections in writing to me at any time throughout the course, if you checked this option on your consent form. You may submit drawings, poetry, or conceptual models to express your understandings of the different aspects of enactivism discussed in class. I am interested in how you make sense of the teaching and learning as an individual. Anything you hand in to me will be used as data. I will check periodically to see if you have any writing to submit. This may include formal course assignments or informal writing such as a learning journal which you are willing to share in the context of my research.

11. It is important that you have time to respond to each question thoughtfully and with the detail that you feel is necessary. However, it may not be possible to address all of the areas in the interview guide. Following our conversation today, I will give you a copy of the interview questions. These may serve as references for any writing you undertake or for the second interview and focus group.

12. It is important to honour and respect the confidentiality of other learners and instructors when sharing information with me.

13. My role as the researcher is to remain open, attentive, and ethical in the research process. If at any time you are dissatisfied or feel these characteristics are not being modeled, please let me know. You have the right to withdraw from the study at any time.

14. Please feel free to request a break at any point during the interview.

15. Do you have any questions or concerns before we begin?
Enactive Teaching in Higher Education:

First Interview: Questions for Students

**Background Questions**

1. What is your current program area? Which degree are you pursuing?

2. How does the enactivism course fit in with the rest of your program?

3. What is your background, if any, as a teacher or educator?

4. How would you characterize your overall learning experiences as a graduate student? How do these contrast with your undergraduate experiences?

5. Is there anything about your experiences in higher education that makes you different or unique from other learners?

6. What stands out about your instruction at the graduate level?

7. How would you describe yourself as: (a) a learner, and (b) an instructor?

8. What is your overall philosophy, if any, of teaching and learning?

9. If someone were to meet you for the first time, what would you want them to know about yourself as an individual? For example, what are some of your interests outside of education?

10. Is there anything else you would like to tell me about yourself?

**Questions About the Enactivism Course**

1. What motivated you to take this course?

2. What were your expectations for learning?

3. Have you encountered anything unexpected in the teaching and learning?
4. What stands out about the learning and teaching in the course?

5. How do you understand the term *enactivism*?

6. Which learning activity, if any, has been particularly significant for you?

7. Which aspects of the learning and instruction do you find the most challenging or problematic?

8. How has enactivism allowed you to think differently about teaching and learning?

9. How have you participated in this course?

10. How do you think you might strengthen or maximize your participation in the course?

11. What roles have your body and senses played in your participation?

12. What role has movement played in the teaching and learning?

13. What kinds of connections have you made with:
   a. the course?
   b. the classroom?
   c. other people?

14. What does the classroom mean to you as a place?

15. What do you think about the language around enactivism?

16. What vocabulary/concepts interest you the most? Why?

17. How is the language of enactivism different from other languages you have heard to talk about teaching and learning?

18. Have the teaching and learning honoured you as an individual? How?

19. To what extent has the course been inclusive of all participants?

20. Based on your experiences in class so far, how would you describe this course to someone who might be interested in taking it another year?
21. What else would you like to see or experience in the course?

22. What questions do you still have?
Enactive Teaching in Higher Education:
Second Interview: Questions for Students

1. In the first interview you mentioned that enactivism signifies X. How would you describe enactivism today?

2. What have you learned about cognition, culture, and complexity?

3. How might you apply your understandings of #2 in your own role as a teacher?

4. Compare and contrast two learning experiences from the course that stand out for you.

5. Which aspects of enactivist learning did you find particularly difficult or challenging?

6. What do you think are the most significant aspects of teaching and learning in this course?

7. How would you summarize your experiences in this course as a learner?

8. How, if at all, did your understandings of enactivism help you to interact with other individuals in the classroom?
Background Questions

1. What are your main roles and responsibilities at this institution?

2. What role does teaching play in your current work?

3. What kinds of qualities do you think are essential for being a good instructor in higher education?

4. What kinds of impressions stand out for you in the ways that other colleagues talk about teaching?

5. What are the barriers and challenges to becoming a good teacher at this institution?

6. What kinds of considerations influence the way you plan your courses?

7. How does your academic background relate to your beliefs about teaching and learning?

8. What is your background as a teacher?

9. Do you see any distinctions between teaching and educating?

10. How would you describe yourself as a teacher to others?

11. Is there anything about your philosophy of teaching which you think makes you different from other faculty members?

12. How do your beliefs as a higher education instructor affect the way you think about your learners?
Questions About the Enactivism Course

1. How did the idea for this course evolve? What were the course’s initial objectives?
2. What stands out for you about the enactivism course last year?
3. How would you compare this year’s course with last year’s?
4. What does enactivism mean to you?
5. How does enactivism allow you to think differently about teaching and learning?
6. How does an enactivist approach compare to other conceptual frameworks used to instruct students in higher education?
7. What would you like to see happen in the course this year?
8. What are some concerns you have?
9. What role does the body play in your understanding of pedagogy?
10. Which learning or teaching activity, if any, has been particularly significant for you this year?
11. I sense that language plays an important role in your understanding of enactivism. How do you understand this role?
12. What does the classroom mean to you as a place?
13. How do you attempt to make the classroom as inclusive as possible?
14. How would you describe this course to others?
15. How does the enactivism course compare with other courses you are teaching?
Follow-up Questions From First Interview

1. You spoke the last time about your participation in the new Teacher Education program. What kinds of possibilities, if any, do you see for using enactivist or ecological ideas to prepare upcoming public-school teachers?

2. You also mentioned that you are trying to bridge the way you instruct in the Teacher Ed program and in the graduate seminar. How have your efforts at bridging evolved since our last talk?

3. In our first conversation you mentioned that you see your roles as researcher and instructor to be interconnected. I also know that you recently did research in an elementary school. Would you please describe that research and its implications for your own teaching.

4. Instructors in the Faculty of Education appear to have higher workloads than usual this year. Does this apply to your situation? How does a heavy workload affect the importance you discussed last time of being passionate in your role as a teacher? What counts as instructional priorities when time is at a premium?

Questions About the Enactivism Course

1. Summarize your perceptions of the teaching and learning to date.

2. Which aspects of teaching and learning are you pleased with? What concerns do you have?

3. How are you thinking now about the use of enactivism and ecological thinking as frameworks for pedagogy? Is this different from your thinking last year when you instructed the same course?

4. How is enactivism allowing you to think differently about classroom culture and participation at the graduate level?
5. You mentioned risk-taking and writing as two areas of personal importance last time. What are you noticing about students' learning in these two areas?

6. What would you like to accomplish before the course ends?
Enactive Teaching in Higher Education:

Instructions for Reading and Editing Interview Transcripts

General Comments

I have prepared a list of points to help you read, refine, and, when necessary, correct statements on the interview transcripts. Please do not make any changes to the interviewer's questions and statements. I also think it will be helpful to keep the purpose of my study in mind; that is, to understand your evolving perceptions of teaching and learning in the enactivism course. Remember that data from this interview will be used as one of multiple data sources for my final work. All data will be analyzed and reconstructed.

1. Should any of your comments from this interview be used in the final product of my work, I will edit the punctuation, grammar, and other mechanics to ensure readability.

2. I have used 1.5 spacing for you to add comments or make corrections. You may also use the margins and the back of the pages. If you choose the latter, please indicate this with an arrow.

3. Please try to keep the flow and integrity of the interview as much as possible.

4. Is the information in the transcript accurate? Does it need to be changed, qualified, or expanded?

5. Are the spellings of proper names and special terms correct?

6. Is your confidentiality protected?

7. Is the confidentiality of others protected?

8. Is there anything about your perceptions of teaching and learning in the course that needs to be added?

9. In addition to writing comments on the raw interview data, you may also choose to write reflections about the content of the interview on a separate sheet of paper. These
reflections may be in expository or creative form (e.g. poetry, story, play). Feel free to try out new forms of writing/performance. Examples of what to write are:

a. a response to what you said in the original interview (Have you refined or changed your thinking?)
b. a clarification or elaboration of points
c. impressions or feedback about the interview process itself
d. questions or areas of tension/uncertainty

If you choose the option described in #9 above, please make sure that you have consented to share your writing with me as part of the research process. I would appreciate typed or neatly printed work. Please include your name/pseudonym, phone number, the date of this new writing, and the interview to which it refers (See information on the header of the interview transcript).

10. Please phone or e-mail me if you have any questions or concerns.
I appreciate your willingness to read and edit the transcripts. Thank you.