

TRACKING THEORIES OF SELF IN THE WORLD

**A THESIS SUBMITTED TO THE COLLEGE OF
GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF EDUCATION
IN THE DEPARTMENT OF EDUCATIONAL FOUNDATIONS
UNIVERSITY OF SASKATCHEWAN
SASKATOON**

BY

BRENDA RUTHERFORD

© Copyright Brenda Rutherford, Dec. 2004, All rights reserved.

PERMISSION TO USE

In presenting this thesis in partial fulfillment of the requirements for a Master of Education degree from the University of Saskatchewan, I agree that the Libraries of this University may make it freely available for inspection. I further agree that permission for copying of this thesis in any manner, in whole or in part, for scholarly purposes may be granted by Dr. Bob Regnier, or, in his absence, by the Head of the Department of Educational Foundations or the Dean of the College of Education. It is understood that any copying or publication or use of this thesis, in whole or in parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the University of Saskatchewan in any scholarly use which may be made of any material in my thesis.

Requests for permission to copy or to make other use of material in this thesis in whole or in part should be addressed to:

Head of the Department of Educational Foundations
University of Saskatchewan
Saskatoon, Saskatchewan
S7N 0X1

ABSTRACT

This thesis explores assumptions regarding the nature of the Self as it relates to the World. The exploration, a hermeneutic investigation initially shaped by the author's interest in the role of the unconscious in thinking, develops through the emergence of questions which move from the role of the unconscious to the conceptualization of self and reality and finally to the role of language.

To answer these questions, the author examines ontological and epistemological assumptions about the nature of the Self and the World by analyzing various "boundaries," imposed both (a) as spatial metaphors used to speak of subjective experiences and (b) as notions of locality grounded in the classical physics world view. The assumptions of a locally-grounded, bounded subject create separations between Self, mind, body and the World, and thus are worthy of exploration.

Instead of setting out to provide a definitive answer to pre-set questions, the thesis chronicles the evolution of the author's questions and answers produced through her examination of various texts on metaphor, philosophy of mind, and consciousness studies. Thus, the thesis is written as the author's search to understand how it is possible to move beyond locally grounded bounded subjects towards a form of knowing that considers simultaneously the distinctiveness of Self, and the unity of Self with the whole of what is. The metaphor of tracking emphasizes the importance of possessing attentiveness to the specific while not losing sight of the larger context or whole. Ultimately, the author suggests an attitude of speculative tentativeness constantly on the verge of reconfiguring the whole

The thesis is presented in multiple formats including essay, multi-voiced essay, poetry, dialogue, and story. These formats capture the continuous interplay of various faces of knowing presented as forms of perception, unconscious appreciation, and conceptualization. In this way, the overall format of the thesis reflects the content of the thesis where the author portrays her experience of tracking how her living interactions in the world are forms of awareness uninhibited by boundaries. In her conclusion, the author recognizes her experience as a form of direct realism in which human knowing is symbolic of the emergent nature of reality.

ACKNOWLEDGEMENTS

Thank you to everyone who endured, encouraged, laughed, chastised, fed me, listened to me rant, moved my commas, gave up their desk space, and saved my document(s) from the all consuming computer system.

Thank you for your endless patience, your kindness, your wisdom and your stories. I am, forever, in your debt:

Bob Regnier, my esteemed advisor. I have never been so challenged. Thank you for your willingness to let me write *my* thesis, for your insistence that I define, explain, and rewrite, and for your endless patience with my melodramatic ways. You have taught me more than I thought I could learn from one person about learning, about teaching and about being.

Janet McVittie, my friend and member of my committee. You have the uncanny ability to say things that set me thinking for months at a time. Your willingness to support me even when you don't agree with me is greatly appreciated.

Howard Woodhouse, also my committee member. Thank you for your enthusiasm, and your time. Your encouraging response to my thesis both surprised and heartened me.

Florence Glanfield, my external examiner. You made my defence a challenging one. Yet, you did so with such a gentle spirit. I look forward to continuing our conversation.

Don Cochrane, my oral defence chair and friend. Were it not for you I would not have ended up here, where I belong. Thank you for every encouraging word.

Jeff Park, my writing life-line. Your wisdom saw me through the dark days. It is because of you that I finally let the thesis go. You owe me three songs.

The College of Graduate Studies and Research at the University of Saskatchewan. Thank you for generously sponsoring my sojourn here with continued financial support: the bursary, the graduate student scholarship and the graduate student fellowship. Because of the College I got to sleep at night (as long as I wasn't thinking about physics).

My family: You have endured my continued absent mindedness, my odd work hours, my turned-off phone, and my rotten moods with cheerful understanding.

My friends and cheering squad: Judy Rutherford, Michelle Culham, Melanie Elliott, Doug Jaques, Sharon Elliott and Rod Watson who did everything from feed me to move my commas. Thank you for sharing this journey with me.

DEDICATION

For my parents,
Bob and Edith Rutherford,
Who
Taught me to write
And to trust
That part of me that knows,
And who encouraged me
To dare
To be
Just a little bit different.

TABLE OF CONTENTS

| | |
|---|------------|
| PERMISSION TO USE..... | i |
| ABSTRACT..... | ii |
| ACKNOWLEDGEMENTS | iii |
| DEDICATION..... | iv |
| TABLE OF CONTENTS | v |
| CHAPTER ONE: PREPARING TO TRACK..... | 2 |
| Pieces of String..... | 2 |
| Tracker | 7 |
| CHAPTER TWO: GOING TRACKING | 10 |
| Why Go Hunting?..... | 10 |
| The Prey..... | 13 |
| CHAPTER THREE: THE SCIENCE AND THE ART OF TRACKING | 16 |
| The Pet Question..... | 16 |
| The interview..... | 19 |
| Sticky Tracks..... | 38 |
| Metaphor | 41 |
| CHAPTER FOUR: BEGINNING | 43 |

| | |
|---|------------|
| Tracker’s Tracks: The Experiences | 43 |
| Picking up the String | 51 |
| The First Track: Thought is Calculation..... | 51 |
| A Pause at the Watering Hole: The Cognitive Unconscious | 54 |
| Lost In the Woods: Consciousness in Question..... | 66 |
| | |
| CHAPTER FIVE: SELF, THE FIRST CONCENTRIC RING | 68 |
| | |
| The Interview: Part Two..... | 68 |
| | |
| SideTracks | 72 |
| Side Track One: My neighbour and her dolls..... | 72 |
| Side Track Two: Not Conscious? | 76 |
| Side Track Three: What My Body Knows | 79 |
| Side Track Four: Multiple Me’s | 82 |
| Side Track Five: Alternative Consciousness | 86 |
| | |
| CHAPTER SIX: SELF AND OTHER, THE SECOND CONCENTRIC RING | 96 |
| | |
| When Paradigms Collide | 96 |
| | |
| Ontology | 98 |
| | |
| Parallel Tracks | 105 |
| Parallel Track One: Reading Plato, Plotinus, Heidegger, Lao Tzu, and Shear..... | 105 |
| Parallel Track Two: Reading Physics..... | 109 |
| Parallel Track Three: Life..... | 116 |
| | |
| The Merging of the Tracks: Recipe for Controversy | 125 |
| | |
| CHAPTER SEVEN: LANGUAGE, THE TRACK THAT RUNS THROUGH ALL TRACKS | 129 |
| | |
| The Interview: Part Three | 129 |

| | |
|---|------------|
| I am Missing a Connection | 130 |
| On Reading Jan Zwicky | 133 |
| What if? | 139 |
| Confessions of Dedicated Realist | 147 |
| Metaphor Madness | 149 |
| EPILOGUE | 155 |
| 1. <i>The Interview</i> | 155 |
| 2. <i>The Story</i> | 158 |
| 3. <i>The Poem</i> | 163 |
| REFERENCES..... | 164 |

We move through the tracks and the tracks move through us. We become, forever, every track we explore and every trail we follow. Each is a mystery in itself, which also unlocks the mysteries of life. To track, then, is not only to know the animal in that point of time, but to touch eternity. (p. 11)

Tom Brown, Jr.
The Science and the Art of Tracking

The categories we are taught, the sources of evidence that we believe count, the language that we learn to use govern our world view. How we come to see the world, what we think it means, and eventually what we believe we can do about that world are intimately related to the technologies of mind we have acquired. There is no such thing as a value-neutral approach to the world; language itself, whether the language of the arts or the sciences, is value-laden. To acquire a language or a set of methodological conventions without examining what they leave out as well as what they can contain, is to take the part for the whole. (p. 19)

Elliot Eisner
The Primacy of Experience and the Politics of Method

CHAPTER ONE: PREPARING TO TRACK

Pieces of String

When we track we pick up a string. At the far end of the string a being is moving, existing, still connected to the track that we gaze upon. The animal's movement is still contained in that track, along with the smallest of external and internal details. As we follow these tracks, we begin to become the very animal we track. We can feel its hunger, its apprehension and its movements deep within our own consciousness. We soon find that our body reacts to these movements. Soon our spirit mingles with that of the animal and a deep spiritual bonding and communication begins. We are at once tracking the animal and being tracked ourselves. Our consciousness becomes so fused with that of the animal that we lose the concept of the track and become the movement itself. (Brown, 1999, p. 10)

1. Where shall I begin? Here, I think, at the beginning, in conversation with you, my reader. This is an unusual thesis. It answers no questions, merely raises them. And here, at the beginning, you are probably already aware that this format isn't the norm. Take heart, dear reader. I write with purpose, with intent. I have chosen my style to suit me, to suit the story, to deliver the message in the shape of the words that flow from my pen.

This is a multi-dimensional story, one that cannot be carefully causally sequenced. Instead, you must find meaning in the words, in the silences between the words and in the dance which they create. In this rather unconventional thesis, I strike forth to query the sacred and ask unconventional questions. You are part of this. I do not want you unmoved. I want your senses touched. I want your heart to reel. I want you to reach out in this conversation we create and touch that part of you which knows.

This thesis begins as my struggle, dear reader. Perhaps, you shall walk away unmoved. Perhaps, your pulse will quicken, and your eyes see the world scattered before you. Perhaps, your eyes will come to see clearer than mine. Perhaps, you will be shook as I have been. Perhaps, you will find that your heart skips a beat, and your carefully constructed world begins to crumble. In that, dear reader, know that you are not alone.

This is my story.

2.

I feel compelled to sketch an arc of time of space,
to trace the meander that should shape the page,
if you and I are to travel this road.

To meet,
to go forth,
to step out - for the moment.
Journeys begin in safety,
packing a suitcase - shaping a path.
And here I begin—
here,
comfortably with the looming in front of me.

You are here—
I am not sure if you are friend or foe.
This is a story of a journey
I'm not sure what the end is
If there is an end
For it continually withdraws
Nor am I sure it can be said in 150 pages
But I'll begin—the story will catch up to me.

3. It all began some time ago, with a question of mind, or perhaps identity, or perhaps of soul. I'm not yet sure which question got asked—nor am I sure which question got answered.

Am I more than I know? More than you know surely, but am I more than I know?
Are there parts of me of which I am unaware? Am I part of something of which I am unaware? Or which is unaware of me?

4. I imagine it is because I have no answer for my questions that I choose to tell the story of the search. Indeed, at times I am not even sure that I know the question. Were I in science, this would quite simply be a null thesis, a series of experiments that lead to no new understanding. Yet, here I sit, writing a story of the search, hoping that somehow, this will spur the conversation, raise questions that seem unpopular, draw forth the assumptions that frame each of our fragmented connections.

5. As you read this thesis, you will notice that it proceeds through the emergence of one question to the next. It is only now, as I close in on the end of this part of my journey, that I realize that I was always pursuing the same questions. Who am I in this world? Who are you? How might we know each other? How might we know anything? These metaphysical questions are not easily answered. There are also ontological questions that query the nature of reality, and epistemic questions that probe how each of us comes to knowledge of the other. I did not begin this thesis knowing that it was these questions that concerned me. I thought I was interested in the unconscious. I began with a question about the nature of thought and a strong personal desire to validate the way I tend to write.

6. My story, therefore, begins with my search for meaning. I wanted validation for the way of work that requires long walks, sleepless nights, and ideas born at the tip of a pen. My method of work can be summarized in a few steps: Feed the brain, ask the question, wait for the answer, and let the part of me that thinks do the thinking. Thus, I began my search simply enough, with a germ of an idea: ‘thought’, whatever that means, might be unconscious. Perhaps thought actually occurs far from conscious attention. Perhaps it is only the results of thought that appear in words at the end of an utterly inaccessible ‘processing’ on the part of my brain.

7. More specifically, this thesis investigates an assumption fundamental to a classical mechanical world view of the world where the ultimate units of reality are conceptualized as particulate and localized (Malin, 2001, p. 1) and that such entities are disconnected from each other. The assumption of disconnection is central to Newton’s First Law of Motion. The first law states that an object at rest stays at rest and an object in motion stays in motion, unless a force is exerted on that object. (Astronomy161, n.d.). Entities only interact as a result of a force. When no force is being applied, there is no interaction; there is no connection between beings. Thus, this worldview conceptualizes individuals as ultimately isolated from the context in which they are embedded. The sense of isolation that results from this conceptualization of disconnection between entities does not acknowledge the constitution of each individual Self through its direct relatedness to the world.

This thesis is, therefore, shaped by a question about how thought is primarily unconscious. However, ultimately, whilst I begin there, it is not where I end. What I am curious about is connection. So, the question about thought is used as a platform, or way to get into the question about disconnection. In other words, I start with the question “might

thought be unconscious?” and my search for the answer brings me to the real central core of the thesis: connection.

8.

I have struggled for some time now
With the shape of this thesis.

Wondering if there is a point
And if there is,

If I could say it.

Something of importance beckons;
Something needs to be expressed.

And yet, I'm afraid,
It is in the expression
That it loses something.

It is all about language,

Really,

The problem.

9. This thesis is the story of two selves on a journey in search of resolution. It is a meander down a lane, a tossing in the storm, a diplomat's battle, and an effort to reconcile two selves torn apart by theory and hesitantly forced onto the same page.

The selves of which I speak are my selves. One self is deeply rooted in the earnest suspicion and doubt of the scientific paradigm. The other self craves possibility, and the opportunity to move beyond doubt to embrace what might be and cannot be proven.

10. This thesis is a journey in search of an answer. In many ways, the text of the thesis carries within it a “meta” thesis. For it carries with it the story of the search. It is about the shakes and the bangs and the rattles of a beginner academic attempting to find answers.

What is interesting is the explosion of a self, of a learner seeking understanding and meaning. My story is about letting go of what I thought I knew, of taking a great big leap out into the unknown and feeling like I was risking certain academic death. It is about being

shaken to the core and about the fear of sharing the experience for risk of ridicule, of laughter, and of shame.

I'll take you on this journey; and along the way, perhaps, you'll see why I'm so shook up. Why the world doesn't look the same to me any longer. Why I cannot, merely, write about thinking; and instead, must write about thinking and Being.

Perhaps you will appreciate my shaking. And perhaps, if I am lucky, if my words engage you, you too will be shook.

So, I write in layers. I write of theory, of context, of teaching and learning, and of thinking and doing and being. I explore ideas long out of fashion. I ask questions that make me uncomfortable. All of this I shall do in a story sprinkled with poems to make you stop and ponder. I tell you my story, too, so I can tell you the part that the normal academic paper cannot touch, how Plotinus keeps me awake at night, of how the Tao resonates in my bones.

11. Tom Brown Jr. (1999) says that "when we track, we pick up a string" (p. 11). There are many strings to this thesis. My first string was my starting point, my desire to explore the role of the unconscious in thought. My second is the exploration of metaphysical questions, both about how each of us comes to know the world and what the nature of that world might be. Who am I? Who are you? How might we be connected? My third string is about language. How do metaphors shape the answers to those questions of metaphysics? How does language shape how the world gets perceived? Are there ways of perceiving the world, different types of awareness that open up if language is silenced? The final string, the shaping string of this thesis, is a story of my journey.

I innocently picked up my first string five years ago. I did not expect any of what happened next. That initial piece of string, my desire to probe questions of the role of the unconscious, was driven my belief that there is "a part of me that knows," that does my thinking for me. It is with that belief that I begin my story.

Tracker

I have been asked to write. I have done so and created horror, an embarrassment of uncompleted thoughts and ideas that seems absolutely wrong, somehow truth-less. There is no path, no glimmer. I have created trash, my body tells me so. It lingers over the keys of my typewriter and stutters vague meanderings that leave it feeling bereft, un-energized, un-inspired. There is no rush of euphoria that normally accompanies a project flowing freely. There is no rush to dispense words. There is a big, empty, vacuous space into which I drip words with only minor value. With each drip, I come no closer to any truth.

What is odd, what is overwhelming, is this instant depression. There is an utter and complete bodily refusal to yield up the words. What is present instead is a steadfast refusal to do what is asked, to bring forth before I am ready. What is the point? I ask, over and over again. What is the point of being forced to work against what works, in order to communicate what is not ready to be said?

Is there anything of worth to be said, if I'm not ready to let it go? What happens when consciousness, with its inherent restrictions of language is forced upon something not yet ready for language? Is there anything to be said that is of worth?

So my body rebels. I am grief stricken. I am terrified that the request is simply one that will nullify what good might be created.

There is nothing ready to come out. That does not mean there is nothing. I am a stew of impendingness. My belly curls with nausea; my head feels heavy. I am infinitely tired. My body knows. I have no way to communicate this. I know with my body that what brews is of import.

These are not the nerves of stage fright, pre-exam stress, or performance anxiety. Nor is this mere resistance at being told what to do. These are the pre-creation feelings that tell me to ignore them. I have no idea why that is. Or even how it is that I know what they tell me. There is no logic in this realm. I trust what apparently no one else seems to experience. I only know that I must tamp down these unformed thoughts, send them back once more to the place of creation, and insist that they reform. They are not yet ready for words.

My thoughts are present, nascent, fragile. They are not yet there in a place where their completedness can be brought forth into language. What is to be said is hanging out, waiting for its final pieces. Why would I speak before the pieces are ready? Before what is to be said is shaped and ready for the words to communicate them?

How can I write about what I profoundly and truly believe in, when what I profoundly and truly believe is that I must wait, and find the space where the words might step into unconcealment. Forcing the moment brings forth drivel. How can I play this two-fold game?

This is wrong. My body rebels. I am going around in circles. My head begins to ache. I would weep.

I am asked to do what I believe is wrong. I cannot go beyond that it is wrong. I am shaken. Here in academia I do not fit.

It echoes in my head. Reverberates.

Why on earth am I here?

And yet, I write this. It is not what was asked for, but a beginning, a verbal description of a preverbal space. It is itself utterly important if I am to describe to you what this is. Where it has come

from I don't know. But as I write this paragraph, and only this paragraph I find that this is what was to be said. And as quickly as it descended the depression lifts. My face no longer wishes to weep. My hands no longer feel as though they are merely dripping words from their fingertips. I am no longer squishing ideas into a preformed box. My hands have disappeared and the thoughts seem to leap out upon my screen. Nothing is forced. This is truth.

This space, this netherworld between no words and words, is not mindless for its lack of conscious awareness. This space is where the work is done. Until there is something to say, I shall not say it.

CHAPTER TWO: GOING TRACKING

Why Go Hunting?

It was my advisor who said, “The question, Brenda, is not what is True? but what is Good?” What motivates each of us to live our best life? What makes each of us moral actors in the world?

It is my view that the whole point of going to school, of getting an education, is to learn to act in the world. It is not that one cannot act without an education, but rather, that education widens possibilities, or conversely, narrows them. One can, after all, be schooled for powerlessness.

Despite knowing that one can be schooled to learn to be docile, to carry on with the status quo, I am, nevertheless, always somewhat appalled when my students in the education classes I have been lucky enough to teach tell me, “One cannot change the world.” Where did they learn such powerlessness? It is, I think, because of them that of late, I have been concerned with hope.

What gives hope? What stands in its way? What removes it? Hope is that essential element to any form of change, for to change anything, either self or the world in any substantive way, I must first believe two things: first, that my actions do, indeed, change the world; second, that what I do actually matters. To have hope, to believe that things can be different and that I have the power to act requires both of these beliefs. Without hope there may be a call to action, but no reason to respond to the call.

What I believe about the impact of my actions in and on this world is grounded upon the conceptions I develop about my *Self* in the *World*. Those conceptions involve at least three separate questions:

Who am I?

What is this world in which I find myself?

How do I relate to this world?

In order to ask the question, “how do I relate to the world?” I must have answers to the first two questions. Yet, it is not as simple as that, for I find answers to the first two questions through a relationship with this world. In order to have hope, I must believe that my being, and my actions, are connected or have the potential to be connected to other

entities in the world. I must believe that there are actually other entities *out there* in the world that I experience as exterior to myself. To believe that that which I experience as exterior to me is merely a manifestation of my imagination limits any call to action, for there is no need to act morally toward that which is a fictitious creation of my mind. I must believe also that the world in which I find myself is available to me, and that I can trust my knowledge of the world, for how else can I know that my actions matter.

For me then, the deepest level of hope derives from conceptualizations of *Self* and the *World* that are those of connection. How I conceptualize *Self* and the *World* in which I find myself individually will determine the way I conceptualize how I relate to the world, both in terms of my capacity to act within and upon the world, but also the value that I place upon my actions. Do my actions matter?

For example, if I conceptualize the external world as particulate and fragmentable, with each entity having firm impermeable boundaries and occupying 4-D space and capable of interaction only if there is some physical impingement on one entity by another entity, then I conceptualize both my *Self* and the *World* as ultimately isolatable and isolated. I can, in fact, perceive myself, as separate from the world. I can readily imagine my *Self* disappearing from the *World* with no real implications for the rest of the world. I can make the claim that my passivity has no impact upon the world and that my activity only impacts the fraction of the world into which I metaphorically bump. “You cannot change the world,” my students declare. They are right if the world is so fragmentable, but I do not think it is so.

If I conceptualize myself as embedded in a matrix of other entities that are connected to each other, with permeable boundaries between the entities, then I can conceive and, thus, perceive that each shift in me shifts the matrix slightly, just as every shift in that which surrounds me, shifts my being slightly. Such a conception of connectedness, stemming as it does from an ecosystems approach to the world, recognizes the singularity of each entity, and the interconnectedness of each entity to all other entities in the matrix

If I push further and move beyond conceptualizations that limit things to a physical level of existence only, and move to conceptualizations of being that explore other ways the world might be interconnected, especially those conceptualizations that explore the possibility of the unity of all things, then the level of interconnectedness between me and the world in which I find myself becomes deeper and far more intimate, for within unity not only is *all* connected, but *all* is also knowable. To conceptualize “*All is one*,” is to include

self as/in that unity, as a manifestation of that unity. Acts within the world become acts of intimacy and love. Intimacy is “a close association with or detailed knowledge or deep understanding of [something or someone]” (Makins & al., 1991). To know Other as Self, is to know intimately. To act within this knowledge of intimate connection of Self to Other will, I believe, lead to acts motivated out of “deep emotional regard” (Makins & al., 1991) for the Other.

Might finding oneself deeply connected to others not inspire hope? Might the understanding that one’s actions have deep and reverberating effects not provide the sense that one has the power to change the world? Might knowing the world deeply and intimately, feeling oneself as known, might that not bring forth attitudes of care, so that the power to change the world, once acted upon, manifests itself in moral acts?

I want my students to know themselves as deeply connected to the world in which they find themselves. I want them to embrace their power to act, and to do so in a way that pursues the Good. It is because I want them to live active, powerful and moral lives that I want to know what prevents them from knowing themselves as connected.

The Prey

It was a rather cool crisp Sunday evening, rather late in the process might I add, that she realized that the entire section she had written on the Prey would have to go. She had been stewing about it for weeks, aware there was something wrong with it, but unaware of what to do with it. That night she headed off for the nightly walk with the dog. There were thoughts in her head of essays to be marked and a general discomfort in her belly that there was something that she was not saying. It was blocks into her walk when she found herself immersed in the play, presenting the thesis, and particularly the pesky section on tracking thinking, to an imagined audience. She no sooner began to offer up her justifications and descriptions of her prey, thinking, when the director swept in upon her, and in a very cultured British accent, shouted up at her (he was extremely short), “Why are you telling me this?”

“Because it is where I began,” she began, only to have the director rather violently shout at her, “but you’re not tracking thinking at all.”

“I’m not?”

“No, my dear, you are not.” You assumed you were tracking thinking, but you are not. You are tracking assumptions.”

“I am?” she asked, and then realizing the folly of her ways, saying more solidly, “I am.”

“You, my dear, are tracking assumptions, and not just any assumptions, you are tracking assumptions that interfere with anyone coming to the fullest knowledge of their connection to the rest of the world. It is nothing as dry or isolated as merely tracking thinking. Nothing ever is, you know.”

With that, he swept off the stage leaving her pondering her newfound prey. Had it always been thus? Had she always been tracking the assumptions? And if so, did she know what they were?

Indeed, she could feel understanding breaking in upon her now. The assumptions all the way through the thesis were about the boundaries that keep individuals apart, and she had started with the very first boundary, the boundary between her conscious mind and her unconscious mind. There were her ideas about conceptual boundaries; she could feel their meanings floating into her consciousness, as if those meanings had always been lurking there. She was concerned with the boundaries that demarcate as separate mind and body, consciousness and unconsciousness, Self and World.

But there was another assumption, the one that always felt as if it both belonged and did not, the assumption at the end of the thesis, the assumption of language.

Suddenly the pesky, short, and quite British director returned to remind her,

“Yes, my dear, your last assumption, it does belong.”

“But why?” she asked, though sensing already she knew the answer.

“You are tracking those assumptions that inhibit both believing in connection and feeling connection, is that not so my dear?” he rather patiently asked.

“Yes,” she replied rather tentatively.

“But where are those assumptions hidden my dear?”

“In my metaphors?”

“Indeed. Go on.”

“And, therefore, in my language.”

“And how shall you escape your language?”

“I can’t”

“Really?”

“No, I can’t.”

“You can’t, or you just assumed you cannot? Do you see, dear, there it is, your last assumption, that one requires language to know the world.”

“But they’ll never accept it, that possibility. I mean, language, its incredibly important. We couldn’t talk, could we?”

And then, because she looked so utterly appalled that he should suggest that she keep the final section she had contemplated cutting, he took her hand and said, “It’s not a binary, you know.”

“A what?”

“It’s not an either/or, you don’t have to give up language, you just have to accept that maybe you don’t need it all the time.”

“It’s not as easy as that,” she mumbled despairingly.

“Why not?”

“Because I say that language impedes knowing the world.”

“Does it?”

“I don’t know.”

“So if you don’t know, then both are possibilities.”

“Huh?”

“If you don’t know if language impedes knowing the world, then you don’t know that it does not. To assume either is simply to assume. You were never tracking facts, just the assumptions, and you’ve done that, all the way through to the end.”

The night was clear and crisp; the feeling of impendingness was gone from her belly; the dog seemed happy enough and so she returned from her walk and sat down and wrote.

I, Brenda Rutherford, am tracking assumptions. I have been tracking assumptions for five long years. What follows is the story of my journey, from thinking to language, with a collection of assumptions in between.

CHAPTER THREE: THE SCIENCE AND THE ART OF TRACKING

The Pet Question

Having made it this far in the thesis, I think you would be entirely justified thinking or asking: “What is going on? Why are there all these strange transitions, the different fonts, the odd little poems? Why has she re-conceptualized the thesis repeatedly in the thesis itself? Doesn’t almost every graduate student re-conceptualize their problem repeatedly before finally arriving at the part that is to be written down? Furthermore, just who is this Tracker and why is she writing directly to me?” You might even go so far as to ask, as one of my peers did, “Is this really a thesis?”

Obviously, there are a few things different in this thesis from the standard or average one. There aren’t many theses that address letters to their readers after all. I ought to tell you why I’ve written it this way. In a standard academic thesis, this section might be entitled: “Methodology.” Within the section, you would normally find an explicit and well-researched description of how the researcher intends to collect and treat his or her data. Methodologies serve the question posed by the researcher. The key is to pick a methodology that will be the most appropriate way of responding to the question that is asked.

As I have already indicated, I was not sure of my question. Such uncertainty was a bit of a problem, especially at the beginning of my graduate student life.

Amongst the supplies one must obtain as a newly enrolled student in the Masters of Educational Foundations’ program is a question. One’s question is *the* most important thing one must obtain. It gets nurtured daily, becoming much like a pet as it remains constantly, and most insistently, a part of everyday life. Far more important than pencils or paper, or even computer accounts, the “pet question” becomes the focal point for many of the interactions one has with professors and fellow students alike. Faculty begin conversations with the opening gambit, “Have you decided on your question yet?” Entire courses are dedicated to the care and feeding of your pet question. Graduate students gather in little clusters and ask each other “What’s your question?” The query becomes a secret greeting

and way of identifying and separating graduate students. Those who have no question are excluded from the special and prestigious realm of those who do. Those that have questions cluster in little groups of similar interest, sharing ideas, resources, and encouragement.

There are different types of questions one can have. Some of my peers arrived with an incredibly well-behaved question. Their questions sat still; they came when called; and they even laid down when requested. Some of my other peers arrived with the difficult question, the question that, like a difficult puppy needing obedience school, needs a serious investment of time to get them to stay put. But even these questions with much fine-tuning, eventually sit and stay as requested.

I, on the other hand, often felt like I had picked up my question on the bargain table at the pet question store. The store must have been trying to off-load it, because it was sitting there, rather docilely it seemed to me, looking like no one would ever take it home and love it. I am a sucker for lost causes, unpopular notions, and the easily cast off. The salesperson snickered as I walked away. A faculty member encouraged me to take the question back. "That's not what you're interested in," he said, and I became more tenacious. Yes it was.

I got my question home, fed it, played with it, and instead of sitting and behaving, it turned, and ran out the door. By the time I tracked it down, it had gone through metamorphosis and it had had the gall to procreate. If I hadn't been sure I had been following the tracks of my question, I might not have recognized it.

So I carried my newly metamorphosed question and its progeny home and cared for the whole lot of them, and just when I thought, "Right, I've got them all under control," and put my nose in a book, they all took off again.

Time passed, graduate students came and went, each with their very controlled questions. I, on the other hand, am five years into the process and I still cannot answer the query, "What's your question?"

"It is trite," my advisor said, upon reading my little allegory of shopping for a pet question, "why is it here? You didn't really pick up your question on the bargain table. You can't think that."

"No," said I, "but it is how I felt." I started off with an idea about the unconscious and was told right off that I wasn't interested in that. Students would sit in our 990 seminar course and discuss their thesis topics. I would start to talk about mine and they would look at me like I had no idea what I was talking about. Someone told me I made her head hurt. I used to go home and wonder if there was something wrong with me because I wasn't

interested in any topic in which other people were interested. I eventually just rushed through talking about my interests and at the end of the course I stopped talking about my thesis to my fellow students almost completely. There was one friend, however, who understood, and it was to her that I would ramble on about the latest book I was reading.

It didn't help that I had a heartfelt belief that I would know what I wanted to say only after I'd read the things that were drawing me forward. The insistence that I put into words what I didn't think I could, left me feeling stupid. It was my intent to write a thesis that directly contradicted the necessity of putting ideas into words in order to work with them. Perhaps I was wrong. Perhaps there really was no "part of me that knows."

Later, as I realized that the ideas I was pondering were no longer about the unconscious at all, I felt completely lost. I had no question; I had no methodology; I had a topic in which no one else seemed interested. I was no longer very willing to discuss any of my interests with people to see if they might be interested as I didn't know how to explain how what I was reading was related to a thesis for which I literally had no question and no methodology. I began to distrust that it would come together. I stopped talking. My pursuit of this thesis became a very solitary endeavour.

Sometime ago, I decided that trying to get a question to sit and stay is just a fruitless occupation for me. I must admit I secretly enjoyed the tracking excursions on which my mounting collection of questions took me. I ended up exploring ideas I never expected to explore, reading about fractals and consciousness studies and discovering all sorts of universities that have programs in psychology that investigate the paranormal. I started to leave the metaphorical door open at night and hope my questions would leave.

Confronted with the fact that I had no thesis question, and yet I had discovered ideas and connections I had not imagined, I thought, "Why not tell them the story of the journey at least?" It was something to write, even if I had no question. It was the writing of the story that I defended in my proposal.

The interview

Characters:

- The dreaded voice of my advisor in my head otherwise known as **Superego**
- **Me.**

Setting: my office, as usual in its normal state of chaotic disarray, books, lunch bags, shoes, papers, and pennies seem to cover every surface, although the shoes are usually, primarily, confined to the floor.

Superego: Right, Brenda, you've written a nice little piece on the pet question store. But might I point out that you've contradicted yourself? You insist that you haven't got a question at the same time as you insist that you have one and it keeps procreating and shape shifting. Obviously the use of the terms procreating and shape shifting implies that you've got a question that has an essential identity underneath the multiple shapes that you encounter it in.

Me: Why do those terms imply an essential identity?

Superego: In order for a thing to procreate, it has to first be something. The same applies to shape shifting; in order to shift shapes, there has to be an entity which has a shape which can shift.

Me: Oh.

Superego: Hence, there must be a question or something for which you were or are searching. Furthermore, you have done nothing to explain the strange format of this thesis, which you have now made even stranger by including an interview with yourself. Have you considered how arrogant it is to presume that someone should wish to interview you, even if it is only you?

Me: Yes, but isn't the interrogation of me the self-reflective part?

Superego: Part of what?

Me: Why do I have to be clear about everything?

Superego: Because this is a thesis, you're not writing it for me, or you're writing it for the person that is holding it in their hands at the moment. So, let's go back to the basic problem. Why the strange format?

Me: Do I have to write about it?

Superego: Yes.

Me: Why?

Superego: Because it's different, and you know full well that if you're going to be an academic you ought to be able to justify why it is you've chosen to write this way.

Me: But why do I have to justify it? Why can't I just say this is what I did?

Superego: The simple answer is because the university funded you and you ought to be able to say their money was well spent, that you didn't just fritter it away.

Me: And the complicated answer?

Superego: Because you are part of an academic community that prides itself on its philosophical rigour, on presenting ideas that matter with some level of clarity. The presentation of ideas has been traditionally done in a very structured format. You are breaking with tradition. You need to explain why it is you feel a format that is substantially different from what is commonly used is a valid way of presenting information.

Me: You're right, but the honest answer is "that's the way it came out of my pen." I just let it happen, which is a bit of the point of the thesis if you ask me.

Superego: What is?

Me: That I am more than just this reflective verbal self.

Superego: That's the point of the thesis? Since when?

Me: Since now, I think. I really did not think I had a point for most of the writing of the thing. I just wrote what came to me. Now, I read what I have written and discover that right from the beginning I was searching for a conception of Self which would allow that unexpected things come out of my pen, or that there are ways of knowing about the world that are not due to learning about the world via information from the senses.

But I think that is just one of my points.

Superego: What do you mean, "one of them?"

Me: Well, you can't have a billion questions, or even a few, and only have one point, but it does seem to be the constant driving force that runs through the whole piece.

Superego: You know they're going to ask it.

Me: What?

Superego: Just what *it* refers to?

Me: *It* refers to the essential quest that framed the journey.

Superego: And that was again?

Me: That I am more than my conscious verbal self. What I want to know is: Who am I in this world? Who are you? Why is Self conceptualized in terms of consciousness and only some forms of it? What are the boundaries around the Self?

Superego: Is that what you started with?

Me: No.

Superego: What did you start with?

Me: An intuition about the unconscious, and a resolution that talking isn't the way I think. So, I started investigating the unconscious.

Superego: Is that how you ended?

Me: No, I ended up with a bunch of poems questioning the effects of language and wondering if there is a way of knowing that is language-less but powerful nonetheless.

Superego: But you think there is a thread connecting the ideas?

Me: Yes, now that I think about it in retrospect. Even though I talk about a whole variety of ideas, like the unconscious, "blindsight," and language, I think one of the main points of this thesis is about recognizing that conceptual "boundaries" are placed around abstractions like Self, mind, consciousness.

Superego: What do you mean by boundary?

Me: My dictionary says a boundary is something that indicates the limits of an object (Makins & al., 1991). A physical object exists in space. That object's boundaries are what demarcates the physical distinction between it being "there" or "not there." You can think of an object as contained by its boundaries. The object exists within its boundaries and does not exist on the other side. The concept of boundary is thus a way of making the distinction between presence and absence of an object as it marks the location in which an object ceases to be. Boundary concepts allow us to make sense of our physical world. Without some sense of boundaries, we would be unable to name anything as everything would be one big whole.

Superego: Okay. So physical objects are bounded because all physical objects exist in a location of space but not in all locations in space?

Me: That's a somewhat simplified and problematic picture of it, but, yes.

Superego: What do you mean simplified and problematic?

Me: Let me answer that a little later. Right now, let me tell you about the boundaries around abstractions.

Superego: Okay, what do you mean by boundaries around abstractions?

Me: You would agree that physical objects are locatable in space?

Superego: Yes.

Me: Are abstractions locatable in space?

Superego: I really don't think so.

Me: Neither do I. However, abstractions are spoken of as though they do.

Superego: Huh?

Me: Well, metaphors get used to talk about an abstraction. Those metaphors are drawn from the physical world. Lakoff and Johnson (1999), who I talk about a bit later in this thesis, say that abstractions like Self, mind, and consciousness are discussed using metaphor. One of the primary metaphors is a spatial one, that of the container. There are conceptual boundaries within which our abstractions are contained, just as there are boundaries within which physical objects are contained. Those boundaries get placed there because abstractions are spoken about as though they were actual things which exist in space. Conceptual boundaries around abstractions are also abstractions; they do not necessarily correspond with the actual world. There might not even be any boundaries in the actual world.

Superego: So you think we ought to examine the way we talk about abstractions and see if Self, mind, and consciousness have conceptual boundaries that correspond with boundaries that exist in the actual world?

Me: Yes. Now let me go back to why thinking about the boundaries of physical objects might also be problematic.

Superego: Okay, why might they be problematic?

Me: Well, where physical reality ends and abstraction begins is sometimes hard to tell.

Superego: Excuse me, are you telling me that there is a boundary between physical reality and abstraction?

Me: Almost. I'm saying that where boundaries are perceived to be is not necessarily about the actual existence of something in space, but rather how the discourse community chooses to label it. Sometimes the boundaries themselves are merely abstractions. How does one know that the boundary that one assumes to be around an object is actually there?

Superego: What has that got to do with boundaries around abstractions?

Me: The abstractions I am talking about are all assumed to be contained in a body that is locatable in space. That boundary is an essential one. Inside of that boundary I am ultimately isolated from objects that exist elsewhere in space. Self is contained. What I want to know, what I go further to ask, is if the boundaries we perceive between self and world are actual boundaries or whether those boundaries are also abstractions. Those boundaries are really the boundaries associated with a classical physics world-view in which all entities made of "stuff" exist in a particulate, local reality. If reality has an aspect of non-locality to it, then those boundaries may need to be challenged.

Superego: Excuse me, can you explain what you mean by a particulate, local reality?

Me: Yes, briefly. The physical realm is assumed to be made up of bounded entities that exist in three-dimensional space. Those entities are assumed to be made up of particles, commonly known as atoms. Entities may impact one another only if there is time for a signal to travel between them no faster than at the speed of light. In other words, if something happens here in this office, it can only impact things happening in another office in the amount of time it would take a signal to travel between here and there. This is a basic law of cause and effect. An event happening here cannot impact an event happening somewhere else simultaneously. There is a chain of events that result in an effect. That chain of events is dependent upon time. This rule about causality is what is known as locality (Malin, 2001, p. 1).

Superego: Now you've completely confused me.

Me: Welcome to my world. Let me say it this way. Regardless of how the Self is conceptualized, it is usually associated with the body. Bodies are physical entities. Now you might say Self is constructed by some internal dialogue, or that Self is constructed by an external dialogue, but no matter how you slice it, body, and the bounds of the body determine something about the Self. For example, in theories of social constructivism, the self is constructed exterior to the body, through the dialogue that occurs among individuals. Inherent in this argument is an assumption of an inside and an outside of the body. Although the Self may be constructed exterior to the body through processes involving entities exterior to the body, each individual still has a sense of Self which is inside of their body. If I assume that those processes are via dialogue with another human, then the way that dialogue enters into the body is through the physical nature of language. The sounding or the sighting of words assumes a physical boundary between me and the exterior world that requires my senses to allow me to experience it. My senses are the way into my interior self. I am isolated without my senses to allow me access to the conversation. The assumption that the senses are the only way into my interior being is grounded in the assumption of a particulate local reality. The results of Aspect's photon experiment on entangled photons lead to the need to question that assumption of a particulate local reality.

Superego: Why?

Me: Because photons seem to communicate simultaneously. There is no time required for an event happening at location for one photon to impact another photon. However, the photons are communicating, it is not via a signal from one photon to the other. I talk about the entangled photon problem later on in the thesis in greater detail.

Superego: Why does whether reality is local matter to this discussion?

Me: It matters because a consequence of such questioning is that all assumptions that arise out of the assumption of a particulate local reality must also be questioned. One set of assumptions so derived is regarding the way each of us accesses information about the exterior world. If photons have access to intimate knowledge about each other, might people have, too? What might that mean? Might entangled photons explain psychic phenomena, or perceptions of God, or the experience of unity?

Superego: Okay, so we've established that you do have a point, and that you didn't know that you wanted to talk about conceptual boundaries when you began.

Me: No, I was sure it was about trusting the part of me that knows, of which I am consciously unaware.

Superego: Can you explain that?

Me: I've always said that when it comes to writing a paper, one should feed the brain and let the part of me that does the thinking do the thinking. That's the way I work. I don't know what goes on in that part of me, but I figure it is what writes a good paper. My conscious self is completely unaware of that formative process. Trying to write a paper before that process is just a futile waste. So I began the process trying to write a paper about the role of the unconscious in thinking. That's why I began the paper with "Tracker," as that little essay expresses my frustration at being asked to write when I did not feel ready to write.

Superego: So why didn't you write a nice, thorough little essay about the nature of language after you discovered that is what you were interested in?

Me: Because I started writing long before I knew what I was writing about.

Superego: Big deal, most people just throw that away.

Me: But if I did, then I'd miss ideas I wanted to investigate further and discuss.

Superego: Like what?

Me: Ideas about the role of the unconscious, and the impact of reading beginner guides to quantum physics.

Superego: So you decided to tell the story.

Me: Yes, though to be honest, I initially decided to tell the story, because I didn't think I had a point. It was only when I was near the end that I found out that there was a thread that ran through everything. I think I wouldn't have found the thread if I hadn't tried to tell the story. So perhaps what I was doing was simply "writing backward" as Davis (1996, p. 22) calls it. In the telling of the story, I found my meaning.

Superego: So was the telling a story a form of research?

Me: I think so. I thought I'd tell the story because it was an interesting story. It turned out, writing the story forced me to see the connections I was missing.

Superego: But this is not just a story. Stories have basic structure. You've done something more. Why the something more?

Me: It's because sometime in the middle of the writing process I discovered there were aspects to the thesis that I didn't expect. Right away, I came up against the problem of how to tell a story that made sense to my reader.

Superego: Explain.

Me: Telling a story seemed simple when I thought up the idea. I could talk about what question I started with, or more honestly, what conviction I started with, and then go on to relate what happened in the order it occurred. I could tell about the books I read, the conversations I had, and the odd things that happened, especially the winter of the appendix attack. Of course, I would relate how the individual experiences served to reshape the questions.

Superego: Okay, that seems simple enough. What's the problem?

Me: Well, there are two problems with that. First, there's the trying to remember what came in the middle. Frankly, I remember the beginning, and I'm at the end, but the middle bit, to be honest, is a bit of a blur. I know the basics of what happened, but, I honestly can't remember if I read about "blindsight" first in year three or year four. Nor do I know how to relate the complexity of experience in a way that will make sense to the reader. When I read Plotinus and quantum physics and Plato, and Heidegger and Whitehead and the philosophy of mind, I was reading them all at the same time. I wasn't reading them sequentially. I was reading all of them sporadically. So, there is the problem of how do I relate my story in such a way that it makes sense to someone other than me.

Superego: What's the other problem?

Me: Well, stories make sense of experience. They impose a meaning on things.

Superego: What do you mean "stories impose a meaning?"

Me: In *Acts of Meaning*, Jerome Bruner (1990) speaks of the way each of us comes to understand, or make meaning of our lives. For Bruner, the narrative, the story we tell, is the meaning maker. Every time I tell a story of what happened in my life, I have to select what I decide is important. The only way to not select is to relive the story from beginning to end. Obviously, no one wants a thesis to contain everything that happened. When I select what to tell, I am doing so because I have decided that the incidents I choose to relate are important. Thus, I have already decided what the meaning of my story is supposed to be.

Superego: That makes sense. Obviously, you can't tell five years of everything that happened. You have to be selective, pick and choose.

Me: Yes, but some things only gain their importance in retrospect. I don't think it would make sense to my reader if I tell them the experiences in order. I've imposed a meaning on the experiences in retrospect, all in a clump. I view them from a vantage point in which I can see the interrelationships between ideas that formed, but they didn't form necessarily in a logical order or sequential order. I can't just relate a story and say it will make sense later, because it is me that imposes the meaning. The reader requires me to provide some clarity.

Superego: So you're saying it's not just a story anymore?

Me: No, it is a story in that it is based on my life, and there is a narrative structure to it that is about the process of researching and writing a thesis. However, it isn't just a story about my life, because I've deliberately tried to write it so that my meaning-making schema is obvious to the reader. So my thesis is also conceptually developed, and not just a temporally narrated story.

Superego: You do know that what you're doing is a hermeneutic inquiry.

Me: Well, yes. But I only just figured that out quite recently. Until then, I actually just thought it was a story with an ever-evolving question. To deal with the problem of relating an ever-evolving question, I framed the work using a central metaphor, tracking. I used the metaphor primarily because it felt right. I think I have been tracking something that keeps eluding me. Is this what Heidegger meant when he said we are still not thinking?

Superego: Never mind that. Stay focused. If you go on about Heidegger here you'll get lost again, you'll have to footnote him and explain how you didn't understand him five years ago when you first tried to read him and how you called him an emperor with no clothes just because your ego was too big to handle the fact that you didn't understand what he was saying.

Me: I still don't.

Superego: So stick with tracking, please.

Me: Okay, let me tell you about Tom Brown, Jr.

Superego: Who?

Me: Tom Brown, Jr. I read some of his books right after I spent a summer at a fishing camp. I met two fishing guides there who had gone to his tracking school. One of them taught me how to walk with fox feet and make tea out of tree leaves. I thought it was cool. It was my first real introduction to a life lived in nature.

Superego: Your point, Brenda, what is your point?

Me: My point is that tracking animals isn't just about following tracks. It is about being inextricably linked to the animal you are tracking and the context within which the animal is embedded. Tracking is not a linear or sequential process, even though one does track through time. Both the tracker and the tracked exist deeply embedded in a context with a level of connection that cannot be severed into fragments. Here's what Tom Brown says:

When we track, we pick up a string. At the far end of the string, a being is moving, existing, still connected to the track that we gaze upon. The animal's movement is still contained in that track, along with the smallest of external and internal details. As we follow these tracks, we begin to become the very animal we track. We can feel its hunger, its apprehension and its movements deep within our own consciousness. We soon find that our body reacts to these movements. Soon our spirit mingles with that of the animal and a deep spiritual bonding and communication begins. We are at once tracking the animal and being tracked ourselves. Our consciousness becomes so fused with that of the animal that we lose the concept of the track and become the movement itself. (1999, p. 10)

Superego: So what does the concept of tracking have to do with your thesis?

Me: The concept is related to my thesis in two ways. First, it is a method of finding something; so "tracking" metaphorically represents what I think I have tried to do as I have searched for answers to an ever widening array of questions. Second, I think "tracking" represents the final conceptual point of my thesis, which is about the embeddedness we each exist within.

Superego: Clarify, please.

Me: Tracking and the art of tracking are about understanding connection, how things stick together and are inextricably linked. Nothing exists without its context. There is something else that attracts me about the metaphor of tracking.

Superego: That is?

Me: Well, I'm fascinated with ontology.

Superego: Define, please.

Me: Ontology: the nature of reality. How do we conceptualize what reality is? Is reality ideas or stuff? And if reality is stuff, what is the nature of the stuff?

Superego: So what?

Me: Well, Tom Brown alludes to an ontology in which reality is almost holographic. His conception of reality sounds like that of Plotinus. Such ideas about reality intrigue me.

Superego: You keep bringing up Plotinus.

Me: I know.

Superego: That means you'll have to talk about him.

Me: I know, but can I tell you about Tom Brown? Here's what he says:

To be aware is to understand the interwoven fabric of life, and, to understand an individual fibre, we may explore it through a track. It is then the track that expands the awareness, but so too the awareness expands the track where all becomes one. When we pour ourselves into the track, part of us becomes that track, and we become the whole. Our tracks, like all tracks, move within the realm of creation, but so too does the realm of creation move within our tracks. There is no inner and outer dimension, no separation of self, just what Grandfather called "oneness." (p. 9)

For me, this quotation hints at the possibility of a reality that is dramatically different from the particulate world reality described by basic physics. Tom Brown is, I think, saying that everything is connected to everything else in a very fundamental way. It is not just that each entity exists together with other entities in the universe; but, rather, that there are levels of reality, perhaps, that are unified.

Superego: Excuse me, levels of reality? What do you mean there are levels of reality?

Me: I borrowed the term from Wilber (2001), who describes what he calls “the basic ontology of perennial philosophy” metaphorically as “the Great Chain of Being”(p. 12). The Great Chain consists of a hierarchy of levels of being each of which “transcend[s] by include its predecessor(s)” (p.13). Perhaps “aspect” would be a better word. There are aspects of reality that are unified. Does that work any better?

Superego: Perhaps, slightly.

Me: I think the problem is that I don’t know if it is possible to conceptualize alternate aspects of reality using anything other than the absolutely inadequate language of the physical world. Am I talking about “levels” or “aspects?” I don’t know. “Aspects” will have to do.

Superego: So what you are saying is that you are interested in different ontologies and you have chosen the metaphor of tracking because it means more to you than just a methodology. Tracking represents an ontology that fascinates you.

Me: Yes, I wanted my reader to know that tracking is more than a metaphor. The concept of tracking, as I understand it from Tom Brown, represents an alternate conception of reality. Wilber (1993/, 1998), says:

The transcendental essence of the great religions – has at its core the notion of *advaita* or *advana* – “nonduality,” which means that reality is neither one nor many, neither permanent nor dynamic, neither separate nor unified, neither pluralistic nor holistic. . . . So it is true that reality is one, but equally true that it is many; it is transcendent, but it is also immanent; it is prior to this world, but it is not other to this world. (p.7)

Tracking reflects an ontology, like the one described by Wilber, that is drastically different from that of classical physics. With the advent of classical physics, all objects became

particulate, fragmentable, and isolatable within the physical coordinates of space. Anything that did not extend in space was not “real.” I think that basic supposition, the requirement for extension in space, framed what became the only legitimate ontology within Western discourse of modernity, the “classical physics world view.”

Superego: Surely, there were those that didn’t agree?

Me: Probably, yet I think the assumption of the fragmentable world became embedded in our language, and to some extent into even those philosophies that challenge the classical world view.

Superego: So your metaphor stands for something important to you. Would it be fair to say your emotions are entangled in this thesis? Should they be? Quite frankly, you almost seem melodramatic at times. Isn’t the point of an academic thesis that the ideas stand for themselves. If your reader wishes to become emotionally entangled fine, but why do you feel the need to express it? Why tell me about your emotions?

Me: I thought about that a lot as I was writing. How do I tell you about me and the impact ideas have on me? I’ve got two answers.

Superego: Go ahead.

Me: First, a story, to be an honest story, should relate the impact of the ideas. Stories without emotions are just plain boring. Further, to explain why I chose the questions I did, and the way in which the questions evolved, I have to relate the impact that the questions and the answers I found had on me. Impact is emotional. Hence, I tell you the impact.

Superego: One would assume that what you read would impact you, otherwise the content wouldn’t show up in the thesis, so, you still haven’t explained emotions.

Me: Yes, that is true. Yet, these weren’t merely interesting ideas. Some of the ideas I read about, like the double-split experiment, literally kept me awake at night. Sometimes I was just freaked out by what I read. For some reason, I cannot separate out the emotional component from the actual experience, because, I think, the implications of what I read left me quivering in a heap, avoiding writing, reading and looking a little mad, even to myself.

Superego: Aren’t you exaggerating?

Me: Maybe a little, but only to make a point, one that is fully supported by science. All sensory input to the human brain is routed through the limbic system, the system associated with the emotions. Everything that I experience gets an emotional label and I pay attention based on that emotional label. I realize including my emotions in a thesis may seem a little odd to some people. However, I wanted my thesis to re-present that rather significant understanding of the way the brain works. I wanted to be able to say, honestly, that writing

a thesis, this thesis, was an emotion-laden event and it was my emotions that guided my journey. I don't want people to think that means it was an irrational journey. Rather, it was highly rational, I hope, *and* emotionally driven. It was both because there is no clear cut distinction between reason and emotion. It has been assumed that reason and emotion exist as separate aspects of a human being. The strict boundary that is often assumed to exist between them is a conceptual boundary that does not correspond to the way in which emotions and reason are related. The ability to reason requires emotion.

Superego: So you've included emotions because you think they belong in an academic text?

Me: Yes, but also because emotions are symbolic in the same way the tracking metaphor is symbolic for me.

Superego: Explain.

Me: Well, as it turns out, the meaning I impose on my story has to do with the problem of mistaking the abstractions inherent in our language for reality. Specifically, I am interested in boundaries that are placed around entities, either real or abstract. One set of boundaries that I think is imposed is the one that differentiates reason and emotion. I think that it is frequently assumed that reason and emotion are two completely different ways of being that act in opposition to each other. I think they are characterized as having a distinct boundary between them. Humans are often viewed as either reasonable or emotional, but not both. But emotions are absolutely required to reason (Capra, 1996, p. 269; Lakoff & Johnson, 1999; Ratey, 2001, p. 223). The often held assumption that these two aspects of being human are separate and in opposition to each other is an example of how conceptual boundaries are often mistaken for actual or real boundaries. The emotion/reason boundary that I represent thematically in the text represents all conceptually imposed boundaries.

Superego: You've explained the metaphor you use, and you've explained the emotive content, but you have left completely untouched, thus far, that which you promised to explain. Can you speak now to the strange format of your thesis? You have odd little poems, strange fonts, and now this odd little dialogue between me and you, which is really just a moment of self-reflection. So, if you would, because you know you ought to, explain the format please.

Me: Let me say first that, as with most everything I've written, I approached each part of this thesis in the same way. I started writing without much of a form in mind. In the case of this piece, this interview is what came out. I had been staring for days at my notes on hermeneutics and trying to force them into the shape in which I thought they should be.

When I finally gave up in frustration, I wrote a very whiny letter to my advisor about writer's block and then began to play.

Superego: You're avoiding the question.

Me: Fine. The format. You'll recall we agreed early on in this dialogue that this thesis was a hermeneutic inquiry. I want the thesis to re-present that. There are many ways that an inquiry such as this one can be served by relating it as a simple story, with a beginning, middle, and end. That would work. However, there were aspects to a hermeneutic inquiry that I wanted to represent using the form of the thesis itself.

Superego: Go on.

Me: What I understood initially about hermeneutics was that there was a constant movement between text and self. In other words, the text doesn't just pour into me. I am not an empty container that just absorbs what someone else has written. I am constantly in dialogue with the words I read, and the ideas that they transmit are constantly interpreted by me. I possess an interpretive frame because I have led the life I have led. I bring to each reading all the moments in my life that have come before it. I bring everything that those moments entail, from cultural traditions to personal emotional biases. I constantly query and re-examine what I read and what I already know. Both the meaning that I make of a text and my own interpretive frame constantly evolve in response to the text. My interpretive frame, as I call it, is what Gadamer refers to as my prejudice because I bring with me pre-judgements (1975, pp. 235-275).

My initial understanding of hermeneutics was pretty simple. I started this process thinking that what I wanted to do was present, or re-present the interaction that occurs between me and a text. As I began to write the story with that interaction in mind, I began to see that interaction is multidimensional and complexly interwoven.

Superego: How so?

Me: The short answer is because everything is sticky, which is an idea I picked up from Whitehead (1938) in *Modes of Thought*. I talk about it a little later in the thesis.

Superego: Explain.

Me: Take, for example, this interaction that I am writing out now. I am hearing it in my head, as though there were actually two people present. (I have a powerful imagination.) It is really just my ability to hold my self as an object and converse with me as though I were another person. It is not a great talent, though rather remarkable for a lot of other reasons. But, that is not my point. These words represent multiple dialogues. Some of those dialogues are overt and some are less consciously available to each of us.

Superego: Can you explain a bit more?

Me: Certainly. Let's take "words" for instance. Each word carries baggage with it, both for me, the writer, and my reader.

Superego: Baggage?

Me: Sure. Words are learned in a context. I learn the meanings of words in the context of other words and the environment of my life. So when I use a word, I select it because I think that particular word corresponds to the idea I am trying to communicate. But, for my reader, words have also been learned in a context. But that context is different from mine. Even though my reader and I share a common language, the words used in this manuscript carry slightly different semantic understandings for each reader and for me. As my reader engages in this text, each word, sentence, and paragraph is interpreted from within the reader's context. The conversation which occurs as I draw upon my context and all the conversations I have had before writing this text enable me to write it. My readers must also have conversations to understand what I have written. There is a negotiation in the attempt to learn what my meaning is. At a given moment, all the moments that precede this moment of writing and reading are incorporated into this dialogue. All of these moments of interaction are, somehow, constantly in play. The degree to which each previous moment impacts the current one, whether it be in my act of writing or in my reader's act of reading, is to some extent, dependent on the importance each of us places on those moments. Tom Brown says it this way:

We move through the tracks and the tracks move through us. We become, forever, every track we explore and every trail we follow. Each is a mystery in itself, which also unlocks the mysteries of life. (p. 11)

The complex ways in which our interactions are interwoven shapes each of us, readers and writers alike. As all previous moments shape present moments, there is a constant opening up of the new mysteries of life. Tracking itself is an act of interpretation. The essential nature of the constantly evolving, interwoven nature of interaction is not simply what occurs in the conversation between people, but also in the dialogue one has, quite literally, with any track. So the format of this thesis is symbolic of the multiple living interactions that fuse together in any given moment. I wanted to write the interactions and make them visible, just as I wanted to write the emotions and the questions and have my tracking metaphor constantly at play as a reminder of an alternate ontology. The metaphor of tracking intertwines with the format of the thesis and I hope are symbolic of the enfolding and embedding nature of reality.

Superego: What is your point?

Me: I have always been convinced that the format of a work should serve the content of the work. Thus, the format of this thesis ought to, in some way, reflect the content of this thesis. As the content of the thesis is about connection and interaction and the embeddedness of everything in everything else, I have written the whole thesis in an attempt to present that.

Superego: So that is why you set up a dialogue between me and you.

Me: Yes, though to be honest, I have written this dialogue this way because it seemed to be how it wanted to come out of my pen, and I've sat here for hours now with the dialogue pouring out of me, as though it were already formed somewhere away from this conscious reflective self. I didn't consciously plan this dialogue; it seems to have chosen me.

Superego: Well, then, why the dialogue?

Me: I suppose, here, where what I want to talk about is interaction and conversation between self and other, a dialogue symbolizes that conversation overtly. It might also be my own homage to Plato and the understanding that living conversation shapes and changes each of us in unpredictable ways.

I also want to point out that dialogue provides a direct opposition to what I want to talk about, a dynamic tension perhaps, to the questions I pose near the end of the thesis: Can we come to know through ways that are distinctly nonverbal? What might happen if we managed to turn off the words, and their concepts with their inherently flawed conceptual boundaries?

Superego: So that is why the strange fonts and writing styles?

Me: Yes, sometimes I am talking directly to the reader, sometimes I am talking to a text, and sometimes I'm just pondering, or lamenting or commenting on my own thoughts in retrospect. Sometimes I've inserted a poem. I've used the different fonts to offset the different types of conversation that I have.

Superego: Can you speak specifically to each different type of style?

Me: Certainly. I have used a variety of different techniques to clarify what I want to say. I have written poems. These I have bolded and placed in a different font, to mark their difference from the other forms of writing. The poems were written when I was struggling for words. I have used poetry primarily because it seems to me to be the medium that embraces the space between words, the uncertainty, and the inability of words to articulate what needs to be said. Poems become more important as I develop those parts of the thesis that are about the inadequacy of language to express what one knows. I have also used the format of interview in this section and story, in the section "Tracking Assumptions," in which I appear in the third person. I have altered the tone of my writing to reflect an element

of play in the thesis. I think many of my interactions with ideas are playful. There is an endless collection of characters in my head with whom I converse. They are alternate representations of me and allow me the possibility of discourse without a discourse partner.

Superego: What else?

Me: I have numbered sections both in my initial section and in the section on the Cognitive Unconscious. In both areas there is for me a discontinuity between numbered sections. I have also alternated fonts in the Cognitive Unconscious section to show the recursive nature of thought itself. In effect, there are my thoughts in normal font, and then, my thoughts about my thoughts in a different font. I used a different font for the section entitled “Tracker” for a similar reason. Here, I wanted to show an internal musing, a personal exploration.

Superego: Anything else?

Me: No, I think that’s it. The various methods really come down to trying to reflect that constant state of interaction I have with ideas.

Superego: Was there something else about hermeneutics that you wanted to say?

Me: About hermeneutics?

Superego: Yes.

Me: Yes. Remember, I only read about hermeneutic inquiry recently. I’d written a first draft and muttered something about Gadamer and, of course, the advisor had scrawled in the margins something along the lines of “Too vague.” So I felt that I had to read some more about hermeneutics. I didn’t read Gadamer; his book is too long; I read a book about mathematics education by Davis that had a great section on hermeneutics.

Superego: Go on.

Me: Davis states that hermeneutics “is concerned with investigating the conditions that make certain understandings possible. It asks not only, What is it that we think? but also, How is it that we have come to think this way?” (1996, p. 18) The theme of hermeneutics is “the persistent questioning of our ‘taken-for-granted’ modes of thinking and acting” (p. 26).

Superego: And you think that is what you have done?

Me: Absolutely. Summarized, I think the questions I have asked are:

How is the interaction between Self and the World commonly conceptualized in the everyday discourse of our shared culture?

Is it possible that our conceptualization of this interaction may be flawed?

What assumptions within that conceptualization need to be re-examined? What prevents their examination?

How might the understanding of the relationship between Self and the World be altered if those assumptions are challenged?

Superego: Is that it? The nature of the questions that you have asked is what makes this a hermeneutic inquiry?

Me: No. Hermeneutics is concerned with the interrogation of language because it is through language that we interpret our world (Smith, 1990, p. 190). We are born into a world of language. My parents taught me the basics of the language, but it has been through daily interactions within my linguistic community that I have learned the language. The words I use, and the way I use them are representative of underlying concepts that are indicative of how my culture carves up its world of experience. To search out the hidden assumptions and question those assumptions is fundamental to a hermeneutic inquiry.

Superego: As you've indicated in the list of questions you've asked.

Me: Yes. What I have been concerned with throughout the whole piece is the conceptual boundaries that get placed around the abstractions associated with the concept of Self.

Superego: Examples please.

Me: Abstractions like consciousness, mind, body, and world. Where do each end and the others begin? Are they actually bounded entities?

Superego: Are there any other reasons this is a hermeneutic inquiry?

Me: Recall that hermeneutics is a cyclical mode of inquiry; a constant movement between text and the reader. It is a movement of new understanding which reshapes previous understandings. The past brings forth the present, and the emerging present reshapes interpretations of the past. This movement allows each person to perceive the world in new ways by allowing our culturally imposed perceptions of the world to be made apparent and thus interrogated.

Superego: Why do you think that such interaction allows our perceptions to be made apparent?

Me: I think it is because that it is in interaction with other ideas that ideas have a chance to conflict. Davis discusses Gadamer's fusion of the horizons of individuals in conversation:

... where one's horizon is the ever-changing, historically- and situationally-shaped starting place of our thoughts and actions. In the conversation, Gadamer suggests, there is a potential for such fusion as participants come to new understandings which are, at that moment of interactive unity, commonly held. (1996, p. 27)

In other words, as I carry on a conversation, whether with a person or a text, there is the possibility to see what I could not see before because I have allowed my own ideas and opinions to be made vulnerable in the presence of the ideas of others. It is only then that I

can see what I need to challenge about my own ideas and those I have inherited from my culture.

Superego: Your point is?

Me: It is funny really, what I worried about the most was that my questions were constantly changing. It turns out that a series shifts in questioning is a key indicator that marks a hermeneutic investigation. Here is what Davis says about the questions:

This movement toward perceiving differently is possible (and necessary) only when the orienting question is permitted to be similarly negotiated and interrogated. In hermeneutic investigation the questions are never fixed. Indeed the hermeneutic question might better be thought of as an issue on a topic of wonder. It is an entry point for excavation, not an arrow for answer seeking. It presents an opportunity to unearth the heretofore hidden “truths” of how we arrived at our current place. (1996, p. 25)

As you will see, I constantly varied my vision of the track I was on. My questions never stayed still, and my curiosity took me all over the place. Yet, there was always the underlying quest to ask real questions about who each of us is in this world. My initial questions about the possibility of the unconscious were, as Davis suggests, merely the entry point for excavation.

Superego: Can you provide a summary as to why this thesis is a hermeneutic investigation? Just a few sentences here would be sufficient.

Me: Certainly. This thesis is a hermeneutic investigation for the following reasons: First, I ask basic questions about what I hold is a taken-for-granted assumption about the nature of the relationship between Self and the World. Second, the assumption about the relationship between Self and the World is embedded in our language and the conceptual boundaries we place around concepts such as consciousness, mind, body, Self, and World. Finally, this is a hermeneutic inquiry because it constantly reposes the question and asks new ones in response to the answers I discover. These questions begin with the nature of thinking and move to questions of consciousness, Self, and Self as it interacts with the World.

Superego: I am curious as to whether your tracking metaphor applies to this form of inquiry. Tracking, on first glance, is a linear process. You follow the footprints of an animal.

Me: Tom Brown says that one of the biggest hurdles for him in learning to track was in learning to look at all times beyond the track. Here is his grandfather’s advice:

Do not get so absorbed in the track that you lose your place in the oneness. By limiting your vision to the track, you also limit your senses, and your awareness does not reach beyond that track. You are thus imprisoned by that track and limited only to the trail. Nothing else exists for you outside of your track and you lose

consciousness of the spirit-that-moves-all-things. You then only understand nature in fragments and never fully comprehend the larger realms of the universe. By fragmentation and absorption in a single track, you diminish your tracking ability. (p. 22)

Superego: What is important about that quote?

Me: When I think of tracking as it relates to exploring ideas I think that to keep my eyes only on the track, to failing to see the world beyond, would be to fail to let the ideas of others challenge what I assume. Had I not looked beyond the initial track, I would never have explored the key ideas of this thesis. I would have written a somewhat dry account of the unconscious and its role in thinking and left it there. Grandfather promises more:

All tracks should be viewed as concentric rings, influenced and influencing the worlds beyond. A track is the beginning and end of all concentric rings. Vary your vision of the track and stay conscious of the worlds beyond. (p. 22)

You know, when I started this journey I really did think I was merely asking questions about the unconscious. Yet, there are many concentric rings, to my initial track. Those rings, the questions they raise, became the real track of my journey. Now, in retrospect, I realize that what I was tracking, what I was searching for I could only have found because I let my initial interest wane. What I was searching for, even then, was a way of speaking about the Self that would allow for the fullest possible level of interconnection between the Self and the World. It was always the worlds beyond my initial track that I was hoping to glimpse.

Sticky Tracks

Whitehead, I am loath to admit, infuses this thesis at every turn. Whitehead drives me crazy. I don't understand him. I find him impenetrable and absolutely irritating. I return repeatedly to *Modes of Thought* (1938) and continue to find nuggets of wisdom that he planted in my brain four years ago, when I first read him. I think Tom Brown and Whitehead would have had a lot to talk about. For Whitehead also cautions in his way that one should not stay so focused on the track. At the beginning of *Modes of Thought*, he speaks of the development of systematic thought, which, he says, is necessary "for the handling, for the utilization, and for the criticism of the thoughts which throng into our experience" (p. 2). Yet, he cautions we cannot begin there, for such systemization necessarily excludes aspects of lived experience. "In all systematic thought, there is a tinge of pedantry. There is a putting aside of notions, of experiences, and of suggestions, with the prim excuse that of course we are not thinking of such things" (p. 2). Thus, one must begin with the unending process of "assemblage." Perhaps, Whitehead's admonishment to assemble before systematizing influences me the most in my attitude towards the stories of others, stories I might easily have dismissed as not matching my system of thought. Now, I am more willing to believe, or at least entertain such stories.

As you shall see, much of this thesis is about the metaphors we use to conceptualize abstractions. It is Whitehead who first got me thinking about abstractions and disconnection. What is an abstraction? "The notion of a mere fact is the triumph of the abstractive intellect" (p. 12). Lately I have been thinking about the way we operate with ideas as though at some level, they were separable from other ideas. Yet ideas, it seems to me, on my less charitable days, are more like the scum that grows on top of a cold cup of milky coffee after I've left it there a very long time. Try and remove part of the scum and the whole disgusting mess comes too. It makes it hard to think logically about things, when ideas are so sticky. One has to omit, delimit, pretend no connections, or that connections have no influence. Yet, "connectedness is of the essence of all things of all types" (p. 13). To pretend disconnection is to abstract. We're finite beings. I think we have to abstract, and reassuringly, so does Whitehead. However, to mistake the abstraction for the reality is to commit the fallacy of misplaced concreteness. Everything sticks to everything else. Forget that at your peril.

"Ah," my advisor said when he read that last part, "why did you pick the word sticky?"

“Because,” said I, “it is the best word I can find.” I’m used to thinking of things being connected to each other with strings. That is because I do an activity with children about food webs. The point of the activity is to show how all entities in an ecosystem are interconnected. The children and I sit in a circle, each of us representing an individual member of a food web. One of us is the sun, another, a plant, still another, a deer. We have a ball of string, and throw it back and forth between us. “Who eats the sun?” I ask, and the children reply, “the plant,” and the ball of string gets thrown from Sun to plant, leaving a trail of string behind. “Who eats the plant?” The net result is a web of string. “All things are interconnected,” I say, and tug on the string somewhere in the middle and all the children feel the tug.

The construction of a web is a useful analogy, but there is something wrong with thinking of entities as connected by strings. Each entity remains isolated in its own little space impacted by the force of the string. The entities in an environment may all be connected by the all consuming need to consume, but something is neglected by that characterization of interconnection. So I searched for a metaphor that held better sense of connection, than held together by strings. I wanted a word that does not leave entities with the possibility of being separated from each other.

I found it in the word sticky. My dictionary says that stick means “to remain attached by adhesion” or “to hold, to cleave or to cling” or “to remain persistently or permanently” (Makins & al., 1991). It is not just that entities are interconnected by that great chain of consumption. Entities are connected because they stick to their context. You can’t separate anything from context. You can pick a log up and move it one ecosystem over but it remains always in a context. That sense of being permanently cleaved, always attached, never isolatable from one’s context, in essence, never merely a matter of fact, is what I wanted when I picked my word: sticky. Things are sticky.

I think most of us have a tendency to think of things like cups and saucers and the mouldy mess at the bottom of the coffee cup as things of themselves. Each entity is separate and isolated in space. Entities have boundaries, places where they begin and end. It is not only ideas that are sticky. So too are things, themselves. The cup exists, not in isolation from the mouldy mess, but in connection with the mouldy mess, and, not only because I was the one who forgot to wash the cup, but also because I am thinking about it, the cup and its mess are connected to me. To think of individual entities without their connections is to omit “an essential factor in the fact considered” (p. 13). To fail to see the stickiness of things with each other, and things with ideas is also to commit the fallacy of misplaced

concreteness. Tom Brown's grandfather might say it is "to lose consciousness of the spirit-that-moves-all-things" (p. 10).

Metaphor

This thesis is shaped by what is for me a brand new conception of metaphor. I have always understood metaphor as a literary trope, a figure of speech where the literal meaning of a word is not employed (Makins & al., 1991). I had learned to recognize such tropes in English class, and to be able to name them as metaphors. But, as Lakoff and Johnson (1999) point out, “only the novel metaphors get named as metaphor” (p. 17). The pervasive influence of metaphor in our semantic lives somehow escaped me, as did the pervasive use of metaphor in philosophy.

Lakoff and Johnson (1999):

Our subjective mental life is enormous in scope and richness. We make subjective judgements about such abstract things as importance, similarity, difficulty, and morality, and we have subjective experiences of desire, affection, intimacy and achievement. Yet, as rich as these experiences are, much of the way we conceptualize them, and visualize them comes from other domains of experience. These other domains are mostly sensorimotor domains . . . as when we conceptualize understanding an idea (subjective experience) in terms of grasping an object (sensorimotor experience) and failing to understand an idea as having it go by us or over our heads. (Lakoff & Johnson, 1999, p. 45)

What *Philosophy in the Flesh* brought to me was a fundamental awareness. Once alerted to the pervasive use of metaphoric concepts and metaphoric reasoning structures, I found them all about me. What amazes me continually now is how much of my daily verbal interactions, whether it is in conversation, reading or writing, depends, not only, on such metaphor, but also the shared understanding of the complex metaphorical reasoning that allows us to interact and exchange ideas. It is because we share a physical world that the metaphors make sense because we continually draw upon our everyday physical experience of the world to speak of abstract ideas.

In many ways this thesis is entirely about metaphors. It is about what happens when we mistake our metaphors for reality and assume that the philosophical entailments that arise from reasoning with these conceptual metaphors are literally true.

Now all I see are metaphors: metaphors for mind, for Self, for love, for growth, for thinking, for being and for the relationship between you and me. This physical experience of sharing a space with other interacting entities shapes how I think of things not *in* the world in a concrete way. It is what I know of the physical world; what I know about how things interact, how they impact my body that provides me with a rich drove of concepts from which to draw in order to speak of my subjective experience of the more elusive and important experiences of my life. Just as I am warmed by the sun, so too, your words might

warm my heart. Just as I struggle to conquer the dandelions invading my garden, so too I struggle to conquer the ideas of this thesis. Just as I understand the relationships between concrete entities, so too I can understand the relations between ideas.¹

As I struggle to speak of the abstractions of my existence, to describe an experience without the metaphors, I discover what I think of as a meaning deficit. How do you define love, joy, self, or time without reference to this experienced world? I discover that it is only when I draw upon the language of my experience of a world that I can reach beyond the almost empty conception to find a deeper meaning.

The metaphor I choose provides a semantic richness to how I conceptualize my world of experience. It also provides a structure with which to reason, for the physical world seems to follow basic principles: rules as simple as those of the basic container metaphor. If an object is in the bucket it is not out of the bucket. The metaphor I pick will determine the logic I will use to reason about something. For instance, if I decide that love is an entity, either object or subject, then love can be acted upon or do the acting. Love can be either the result of or the agent of change; it is not the change itself. If love is an entity then it can be *moved, bestowed, given, thrown away, or laughed at*. If it is the subject then it can “*lift us up where we belong*.” If it is an entity, then it is also locatable. I can contain it: *I have so much love in my heart* or I can be contained by it: *I have fallen into love with someone*. Philosophically, conceptualized as an entity, love’s existence or non-existence can be argued for, and if it is found to exist, then its location must be queried.

If I decide love is an action then it is not an object. It, therefore, does not exist in my heart, but rather, it characterizes or describes a causal relationship between a subject and an object. There is no need to ask the question: *Where is love?* Just as there is no force without a subject to provide the force and an object to be acted upon so too there can be no love without the fundamental relationship between the lover and the loved.

The conceptual richness is available to each of us because of our existence in the world. Our common experience of the physical world allows each of us to metaphorically follow the reasoning of each other, to demand metaphorical consistency with our arguments, and pray for metaphorical clarity.

¹ The relationships are fundamentally of two types:

- static relationships of position in time and space
- causal relationships due to the interaction of bodies in time and space (Lakoff & Johnson, 1999, pp. 36-38).

CHAPTER FOUR: BEGINNING

Tracker's Tracks: The Experiences

1. This journey began as a quest to justify what it is I do. A philosophical quest to search the literature and find a few researchers who might say that closing your eyes and going to sleep is a very good way to write an essay. It was all quite simple. I had a relatively good and simple theory based on snippets of scientific knowledge about the way the world works and the only empirical evidence available to me, my experience.

2. Writing:

Good writing often appears miraculously for me. I lie in bed, the pillows over my head, my heart pounding in my ears, I try to convince myself to go to sleep, when suddenly from the depths, springs the paper, letter, poem, beginning sentence, from which everything flows. Outlines confound me. The insistence on sequential planned thought simply perplexes me. What appears on paper flows unbidden.

Eight years ago, my father learned to play the push button accordion. Initially, he would stare intently at his fingers as they moved over the keys. He complained endlessly of his inability to get it right. Two days ago he told me that it was the advice, “don’t look at your fingers,” that freed him from his struggle. Every piano teacher knows that this crucial piece of advice is one of the first things to be taught. One learns technique, learns to feel the keys, learns to trust one’s fingers, and then never thinks consciously about where the fingers are. To think about it in a performance is certain death.

I think I write this way. I know that I have spent years learning the technique, where the period goes, how to move between paragraphs, what makes an essay flow. Now, when I write, I find it difficult to plan. Instead, I follow a formula:

Feed the brain.

Ask the question.

Wait for the part of me that knows to do the thinking.

I know I am not ready, but still thinking, by the brewing feeling, the flood of physical feeling that is unaccompanied by an ongoing sense of words. I continue to read, I go for very long walks, and occasionally I do nothing at all.

I know I am ready when I have a first line, and the brewing feeling clarifies into an intense feeling of focus, a desire to talk to no one, and words flood me as I try to go to sleep.

If I try to force what I write, if I try to create an outline before I am ready, if I try to write in a regimented way, I am doomed to write nothingness. Drivel I call it. In my opinion it is frequently inadequate, unexplored, poorly formatted. At best, it is linear, a sequential series of ideas. At worst, it is unworthy.

3. Killing mice

I graduated from university (the first time) with an honours degree in biochemistry. I didn't start there. I had intended to be an actress; but a trip to New Zealand following my first year in school that, among other things, presented me with a bizarre experience on a beach, whilst trying to avoid an amorous, drunken rugby player, resulted in complete change of heart. I was in love with nature. I would study biology. Then I discovered that in order to graduate I would have to spend one full term in a lab mating fruit flies. I cast about for options, and realized that unlike any of my classmates, I had actually been fascinated whilst memorizing the biochemical cycles of the body. Glucose turns into glucose-6-phosphate, utilizing one ATP molecule, with the aid of the glucokinase enzyme. Heady stuff.

There were amazingly complex patterns for the tiny molecules of life. I was utterly fascinated. Life was a continual flux of particles so completely integrated that anything out of order resulted in disease, and yet because it was so complex, it was capable of handling incessant change. In your body, nothing exists in isolation. And all of it is moving, incessantly, dynamically and continually in this "closed" chemical system; it moves with ever present order. Life contravenes the laws of thermodynamics. Living things expend energy to maintain order as opposed to conserving energy and falling into disorder. It is a simple little statement. It rocked my socks. What was the difference between dead and alive? Something halts the dynamic flow. Something interrupts.

My first job, my first 'real' nine to five, was breaking the necks of and then grinding up the spleens of approximately 20,000 mice. It was here, in this world of scientific drudgery that I had my first encounter with genius. My employer had been inspired to enter his field of immunology because of his finger. The key moment occurred when upon submerging the tip of his finger in some toxic chemical, it had slowly disappeared. Now, should my finger have slowly fallen off, I would have experienced dreams of horror, and felt rather pathetic about having yet another of life's cruelties foisted upon me. He, on the other hand, watched his finger rot away, and wondered what it was about his body that made the decision to get rid of the offensive part post haste and why it stopped where it did.

He was a man of boundless energy. He moved in bounds. And he would pop into the lab; having had a brief few hours of sleep to say something like “I’ve had this dream...” And he would then spend hours hopping about, his mouth barely able to keep up with the words that bubbled forth, ideas flooding the room. I would lose track of what he had to say in a short few moments, but of course I would nod and tell him to continue, for it was obvious that indeed he was going to do just that. There was always a suddenness to his ideas. They came of a piece. And so he would design a set of experiments to explore the idea further, until a new idea would send him and everyone about him into a spin.

I was a horrid lab technician. And eventually I realized that loving the abstractions of biochemistry theory and doing the day-to-day grind, (forgive my pun), of research were quite different things. And so I went back to my first love, drama.

4. Acting

Here the world was rather different. We would spend hours lying on the floor, humming and breathing, or follow our hands about to see where they would lead; we would climb each other, or enact birth to death scenarios of our characters. All this in academia. If the government knew what it was supporting I’m sure it might cringe. As for all the parents sponsoring their child’s whim to study drama, of all things . . . well I’m sure their children now have well paying jobs and everything is fine.

Here again I encountered creation, though in a completely different guise than the one I had encountered in the company of the bounding immunologist. For here I discovered it in myself. It was all very odd. We were taught the techniques of drama from the beginning, from vocal exercises that placed the voice at the front of the mouth to dissecting a script for the beats (a technique used by method actors to note the small nuances and changes in motivation for a character that run through the script.) Yet the characters emerged not from some concentrated part-by-part construction, but frequently of a piece. The best description I can give is that characters would well up from inside my belly. I discovered that altering how I stepped would alter automatically how my voice emerged from my throat, how my body felt, what emotions rang through. It was as though there were innumerable entry points into a character, and through the entry points I would find a vast array of potentialities that I could never have encountered through some cerebral, conscious decision making process. There was a constant interplay between what was revealed and what was then worked with and developed consciously. If the work was too instinctive it was often loose and self-indulgent. If the work was too technical, it lost truth.

This process of creating a play was synthesis, creation, at its best. Layer upon layer, the work was always more than the sum of its parts. More than the words of text written, more than the pieces of individual characters put together, intentions, movements, gestures, voices, more than the characters interacting on a stage, more than the added effects of lights, sound, props and set. There is no wonder that many find the theatre magical. For what happens when the lights dim and the audience hushes, is a gigantic oozing, flowing organism that wraps everyone in attendance in its magic, for which every breath of every person in the presence of the work is an integral part of the whole. When I was on stage, and it was all working, all flowing, all being, I was at once there and not there. There is no really good description of such a series of moments of continual creation. Only that it is truly whole. In such moments self disappears. What was created moves through me.

The art of acting requires years of discipline, years of submerging self and allowing the work to appear. I did not spend years there. I learned to love the glimpses of sheer beauty that I encountered. I especially loved the moments when we were unleashed, unprepared with only our wits to create instantly an improvisational scene. Improvisation, like great writing I believe, requires an incessant interplay between the art of letting go of the self, and the art of disciplining the self. One is utterly there, in the moment, there is no planning, no outline, no thought about the thought. Indeed, one of the basic rules regarding improvisation is that there be no thought about the thoughts.

If you think about it, this thought about what comes forth is usually value judgments. We are taught to think about our thoughts. Our language is littered with phrases like “I didn’t think about what I was saying,” and we know that’s not a good thing. These incessant value judgments impede our ability to create spontaneously and fluidly. Silencing conscious thought, the judging part of our conscious awareness, allows actors to pour forth from a wellspring of the un-thought.

There is another rather unique phenomenon I found in theatre school: the empty space. Accustomed as I am to the idea that one must stimulate the senses, it was odd to walk into an empty room. They paint the walls black; remove the chairs. There are no pictures upon the wall to stimulate your imagination, no plethora of props. Instead there is an empty space. I learned here, in this empty space, to let go of judgment and allow whatever creative impulse would come freely, without imposing anything consciously. I remember doing an acting exercise in which I, as my character, was being interviewed. I remained me, pretending to be someone else, for at least 90% of the time. My classmates, whose job it was to peg your insincerity down, to get you to release from self, grilled me

mercilessly. I began to feel wretched. Why did they not believe me and my carefully constructed character? It was only when I let go of the construction of who I thought my character was that she, the character I was to become, began to show glimmers of herself.

I always pondered the moments when a voice would suddenly appear from nowhere. Blessed my lucky stars, hoped it would reappear. I could not act without questioning something about the nature of reality. From whence does a character come?

It is possible that characters come from the unconscious. At least, I think that the unconscious might offer an explanation for the way in which characters seemed to suddenly appear. One's unconscious mind can do a whole lot more than one's conscious mind. Let's let it do that.² The letting go of conscious control was the major lesson of my life as a drama student. But there was another seed planted in drama school, a niggling suggestion that there might be more than simply the unconscious at play. There were the masks.

I must confess I have no real experience of mask work. Except for a few brief classes, we did not spend much time in the tradition of masks. My curiosity comes from a remembered description of mask work that I either read, or heard in class, although I have no idea if my memory serves me well. Regardless, the memory has remained as a reminder of how weird things get in the world of the theatre. Masks are frequently used to develop characters. The masks are often shared between theatre companies, schools and other groups. Masks apparently, frequently, freakishly, carry their personalities with them. I remember someone explaining this to me, that despite the ordinariness of a mask, the personalities portrayed by actors unaware of what other actors had previously done with a particular mask would often be dramatically similar. Too similar, some say, for the explanation to be that the mask simply inspires the same motivation for a character in all actors. I think that's a little weird. That memory of masks with their own personalities has stuck with me for many years. It has been a haunting reminder to me, as I search for explanations for the way people know about their world, that some things are not easily explained.

5. Hanging out with fishing guides

Of course, I did not stay in drama. I had every intention to do so. I even had my cross Canada audition tour planned. There was a great deal of potential. Or at least I like to

² I have only just read a description of creativity discussed from a quantum perspective. According to physicist Amit Goswami: "The suddenness of insight—the 'Ah ha!' experience—is due to the discontinuity of the quantum leap of thought." Furthermore, "if we don't collapse thoughts through conscious striving to solve our problem, and additionally, if we feed ourselves ambiguity, we can accumulate quite a bit of uncollapsed superpositions of possibilities in thought" (2001, p. 211).

think so. But I got diverted. I went to a fishing camp to help out a friend. I was to stay for three weeks. I stayed for five summers.

It was here I met the fishing guide. He was a quiet fellow. He took me for my first walk through the woods, showed me how to walk in bare feet over gravel, introduced me to willow bark tea. In the course of three weeks the focus of my life changed yet again. I had not expected to encounter a spiritual home.

Fishing guides, at least this lot of them, are an unusual breed. They spend their days in a small boat with two Americans. Their sole aims are: to find fish; to not get hooked in the eye by a barbed hook and to get a BIG TIP at the end of four days. Some guides are university educated. Others are not. The BIG TIP at the end correlates with the number of fish found, not with the 'prestige' of the university degree. My own ability, developed in my university classes, to name the parts of the fish and discuss in abstract terms their two chambered hearts would not net me one fish on that lake.

Finding fish requires intimate knowledge of place, and that knowledge inevitably is gained through hours spent on the lake and the coded discourse of after-hours beer session. Sessions inevitably spiced and seasoned with the use of one multipurpose four letter word, which as you might guessed, worked as adjective, adverb, noun and verb. It is as close as I have ever gotten to non-discursive reason that is utterly discursive. The phenomenon of fisherperson language is itself a master's thesis. I mention it in passing, because there is something about the minimal use of language and the multipurpose use of one term to stand in for any conceivable concept that fascinates me.

What I want to talk about here and now is the practical art of 'finding fish.' When I began in the College of Education, all my professors uttered what I now utter to my students. "There is no how-to manual." There were no real secrets to teaching, managing a classroom, keeping students' interest alive. Each teacher must find his or her own way, what works for one, will not work for another. The art of 'finding fish' is similar. The best guides made it seem almost magical to me. If I were to press them for a description of how they know what they know, I imagine they would mutter things about the shadows, the temperature, the weather last night, the waves on the water, the time of day, the barometric pressure, the history associated with the place, and the type of lure. I doubt if any of the guides could break it down in such a way, taking into account every variable that might impact on the finding of fish. What I recall of their conversations goes something like this:

“At the back of the *@# bay, just before *&% lunch, in the *%# reeds....”³ their ability to recount the finding of fish was absolutely not representative of their ability to actually find the fish. In general, guides may not know how to say what they know, but this inability to express their knowledge does not mean that they do not know.

In my memory there were a few guides, however, who paid attention to what was going on. For them, finding fish was a fine-tuned, almost spiritual, process. It was only years later when reading Rupert Ross’ *Dancing with a Ghost* (1992) that I began to think about how fishing guides know how to find fish. He recounts a tale of knowing a storm was coming without knowing how he knew, the obvious signs of a storm brewing being missing from the horizon. He was convinced, however, that he ought to get on land. Ross attributed the skill to pattern recognition, the art of intimately knowing how all variables in a particular occasion interact. An explanation of why there might be fish here, of all places, is possible. But, as in Rupert Ross’ case, the explanation is intimately dependant on apprehending each and every relevant variable present. The resulting analysis, if it is to be done, (giving reasons for, or providing a logical account of “why fish here?”) is not something guides formulated in spoken language, or even consciously. Instead, the guides related a felt understanding associated with the feel of the wind, the smell of the air, and temperature with their background knowledge of fish behaviour on a day just like today in this particular location, over a period of time.

The best fishers were thinkers; but, in my experience, they often weren’t speakers. Yet, everyone knew which guide to follow, whom to listen to, whom to ask, “Where might be good today?”

I went to the woods for three weeks. I went, originally, to simply help a friend out of a jam. I stayed the whole summer. I actually begged to stay. The owners of the fishing camp had to make a job for me. I gave up the audition tour, the dream of a life and wanted only to stay in the woods.

Somewhere in the woods, something happened. I am not the same person I was before I went. I returned four summers, sometimes staying for as little as three weeks, sometimes staying four months. Things happened. There were quiet moments of presence. I think it was in the woods that I first began to feel that there was more to this little world than I’d been trained to think.

³ My use of symbols stands for expletive. I am sure you can fill in the blanks.

It all started with the terns that danced for me. I was intensely sad, sitting on the dock when a flock of terns decided to play slide on the wind. Our dock was at the mouth of a river. The wind was blowing from the west, from land out over the water. The terns would head up river, fighting their way against the wind up high into the air. Then, one at a time, they would turn and slide down the wind to skim the surface of the lake, directly in front of me. Slowly, as I became aware of them, my sadness lifted. Finally calm, having sat for a while simply watching them play, I thought to think, "Thank you." The terns flew away. Zigzagging against the light of the sun, I could only see them as they zagged. Their flight was a strange tattoo, a quiet acknowledgement of understanding. I got up and left the dock. Such moments of connection happened enough to make me notice, creatures appearing and behaving as if they knew not only of my presence, but my mood. It became increasingly obvious that I was not alone.

Picking up the String

The First Track: Thought is Calculation

My journey at graduate school began with an idea really, that the words at the end of the pen, the character that emerged, the unspoken, though not silent, ability to find fish, were the end product of something that occurred away from conscious awareness. I thought that consciousness got in the way, or to be, perhaps, more precise, that awareness got in the way. My only desire, at the beginning of my journey, was to justify my belief that there is some part of my brain of which I have no conscious awareness that is indeed the part of me that creates. Processing, which is what I figured my brain was doing whilst I was thinking about things both consciously and unconsciously, occurs in my nether regions. Just as my brain regulates my heartbeat, my temperature and my hormones without my conscious deliberation, so too, my brain does other “thinking” of which I am not consciously aware.

I thought that processing was like the analysis one does with a mathematical equation in physics. There are multiple variables, some form of calculation occurs, and then there is a result. I called my definition of thinking multivariable analysis. The more variables, the more difficult it would be to think consciously about them. I can really work with only one or two variables in my conscious mind. I’m sure others can work with more. But, with countless neurons in the brain, and more possible connections than there are stars in the sky, or so I had read somewhere, surely each of us has the capacity to work with countless variables. If I could only consciously work with one or two variables at a time, and I had the capacity to work with more, then it must be occurring in some sphere of my brain of which I was not aware.

Now, I could have said that multivariable analysis occurs in the arena of brain activity of which I am not conscious, but I pushed my idea further. Not only does multivariable analysis occur somewhere completely isolated from conscious thought, but, said I, conscious thought actually impedes such analysis. I held this idea because all my really creative moments seem to occur precisely when I give up trying to think about what I am supposed to think about. I also am one of those people whose consciousness seems inevitably to be flooded continuously, obnoxiously almost, with words. I am a very wordy person. I think in words, not pictures. For me, conscious deliberation is about using propositional language to try to analyze things. In my opinion, my conscious verbal attention is at best capable of single variable analysis. So if I am going to think with multiple variables it is not going to be in words. So, I reasoned, the more complex my ideas

become, the more I depend upon the unconscious to do any form of legitimate analysis. This explanation of multivariable analysis in the unconscious, realm of my brain would explain why writing a complex paper requires silence, and release from conscious attention.

I phrased my hypothesis this way:

Multivariable analysis is impeded by the linear nature of conscious deliberation especially that which is governed by words.

Note my use of scientific terminology: *multivariable analysis, processing, hypothesis, legitimate analysis*. . . . Trained as I am in the scientific paradigm, at the outset of the journey I was convinced that I could write philosophically about multivariable analysis (my words for thinking) and provide a justification, or validation for the truth of my hypothesis. As we continue, you'll see how things changed.

You may have also noticed in the preceding paragraphs of this section my heavy reliance on ill-defined terminology. What is processing? What is single-variable or multi-variable analysis? What makes analysis legitimate?

Unbeknownst to me, I had mistaken my metaphor for my reality. Steeped as I was in the terminology of science I had already made a fundamental grounding presupposition about what thinking is. Thinking is calculation. I even assumed that all "creative" thinking was somehow calculative. I am not alone in such a set of assumptions. In their survey of cognitive science, Varela, Thompson and Rosch (1991) point out that the fundamental metaphor for the branch of cognitive science known as cognitivism, is the digital computer (p. 7). A computer is a *machine* that acts on *symbols* undergoing physical changes which are interpreted as calculations. Hence, thinking, or cognition is thought of as "information processing through symbolic computation," defined as a "rule-based manipulation of symbols" (p. 42). Thinking results in *solutions* to problems.

I might have read Heidegger's description of two very different types of thinking in his *Discourse on Thinking*, early in my graduate work, but I certainly

did not pay much attention. I was convinced that thinking was computation, even if the form of that thinking was philosophical musings. For contrast, I offer you here, Heidegger's words on calculative thinking, which he contrasts with meditative thinking:

Its peculiarity consists in the fact that whatever we plan, research, and organize, we always reckon with conditions that are given. We take them into account with the calculated intention of their serving specific purposes. Thus we can count on specific results. This calculation is the mark of all thinking that plans and investigates. Such thinking remains calculation even if it neither works with numbers nor uses an adding machine or computer. Calculative thinking computes. It computes ever new, ever more promising and at the same time more economical possibilities. Calculative thinking never stops, never collects itself. Calculative thinking is not meditative thinking, not thinking which contemplates the meaning which reigns in everything that is. (1966, p. 46)

To be honest, I never once queried just how a calculation or a series of calculations, irregardless of whether single or multivariable analysis was involved, might lead to a philosophical argument, to a new idea, to a story, to a poem, to a character, or even to a thesis. I just assumed that analysis was the right term for what happened and that it would, indeed, lead to each of those things. But, whether thought was calculation didn't really matter to me. What really mattered was proving that thinking, whatever it was, took place away from conscious awareness.

A Pause at the Watering Hole: The Cognitive Unconscious

1. It is ironic that the first book I read at graduate school was Lakoff and Johnson's tome *Philosophy in the Flesh*. It became my "bible" for at least two years. In it, on the very first page, I found the statement: "Thought is mostly unconscious" (1999, p. 1). Indeed it is a rule of thumb amongst cognitive scientists that 95% of all of our thinking is unconscious (p. 13).

It should have been enough. I should have stopped reading there, and selected a new thesis topic. My theory was vindicated. Two people had written it down; the unconscious is responsible for thinking. I could rest easy, knowing my way of writing, of doing things, was somehow acceptable to someone, somewhere.

The authors of the book also pointed out that out that conceptualizing "thinking" is metaphor laden. Thought equals calculation is just one of multiple ways of conceptualizing the subjective experience of thinking using a metaphor drawing upon the concrete world. I didn't pay attention. I was too busy dwelling in my vindication.

2. Ninety-five percent. That's a lot of thinking of which I am not aware. How come I'm aware of 5%? What makes this 5% so special, and is that other 95% like this 5%? Is there some experience associated with it? It seems to me that I experience the thinking I do consciously. I feel like I am in charge of it, that I direct it. I think that experience is what is referred to in the literature of philosophy of mind as the intentionality of thinking (Cooney, 2000, p. 7). If there is a level of directedness to my conscious experience of thinking, is there a level of directedness in the 95% of which I am not aware? What directs it? Is it me and I don't know it? Is there part of me locked inside my head struggling to get out? Or is thinking simply neurons firing? Is it only about the hardware? In which case, what about the experience of thinking?

3. I found numbers that helped my argument. There are 10 billion nerve cells in a brain. There are 1,000 billion synapses (Capra, 1996, p. 40). The human brain deals with 11 million bits of information each second from the senses alone (Davis, Sumara, & Luce-Kapler, 2000, p. 40). I thought it should be obvious that thought is unconscious. In retrospect, I realize I had my answer before I had a question. Or at least, I had an answer at the beginning of my journey. Now, mostly, I'm just confused.

4. I found definitions of thinking that seemed to correspond with my multivariable analysis description. Thought (cognition) is:

- “Information processing as symbolic computation—rule-based manipulation of symbols” (Varela et al., 1991p. 42) courtesy of the cognitivist paradigm.
- “The emergence of global states in a network of simple components” (Varela et al., 1991, p. 99), courtesy of the connectionist, emergent properties paradigm.

There is a case to be made for the problem of making the simple more complex through scientific language. Why find a new term for thought, except perhaps to lend some form of importance, or status to the term. Illich and Sanders warn language must not be reduced to a communication code: “We must be forever conscious of the fact that we do not know what those terms mean. . . . Furthermore, we gratefully transfer the power to define their meaning to an expertocratic hierarchy to which we do not belong” (cited in Smith, 1990, p. 106). Their point is that taking a word from science to use or giving a word to science to use, makes that word senseless in normal parlance, for it loses its common sense. Words and the way they are used become ways of excluding those who do not understand from the special collection of people who do. I think they have a point, for neither of these definitions of information processing as symbolic computation, and emergence of global states in a network of simple components makes a bit of sense to me. Even the term Varela, Thompson and Rosch (1991) use in place of thinking means nothing to

me. Why is cognition the word of choice? What's wrong with thinking? How come no one talks about thinking? I am beginning to suspect that technocratic language is just a way of keeping professions separate from the rest of us normal folk who would know what they were talking about if the experts didn't keep changing the terms.

Regardless of the fact that I didn't really understand either definition of thinking, I figured I could squeeze computation into emergent systems, or even throw out computation and thus multivariable analysis, so long as I kept the unconscious. But what is an unconscious emergent system? What, for that matter, is a conscious emergent system? And what do Varela et al. mean when they say that "a single, discrete symbolic computation would, in a connectionist model, be performed as a result of large number of numerical operations that govern a network of simple units. In such a system, the meaningful items are not symbols; they are complex patterns of activity among the numerous units that make up the network" (p. 101). Apparently, this brilliant stroke of getting rid of symbols solves the problem of how symbols get their meaning; but how patterns of activity get their meaning is still unclear, and how a symbol is different from a pattern of activity is problematic. I recall seeing a great Canadian moment on television. The brain doctor is prodding the patient's brain and the patient is saying oranges, I smell oranges. Is that thinking? Having your brain prodded?

5. Varela et al. (1991) examine three paradigms within cognitive science. The paradigms are "cognitivism," "emergence" or "connectionism," and "enactivism." In the first "cognition is mental representation; the mind is thought to operate by manipulating symbols that represent features of the world or represent the world as being a certain way" (p. 8). In connectionism, representation is a result of the emergent global states whose properties correspond to the world (p. 8). The final model challenges representation as the mode of thinking. According to Varela et al. (1991) representation rests on assumptions which "amount to a strong, often tacit and unquestioned, commitment to realism or

objectivism/subjectivism about the way the world is, what we are, and how we come to know the world” (p. 9). Intriguingly, Heidegger (2000) also rejects representation in *Introduction to Metaphysics*. Representation is the idea that the mind acts like a theatre, in which the world is represented to it. For those that hold to the theory of representation, somehow, what one experiences isn't experienced immediately, what is experienced is a representation of what is experienced. The world is experienced by the body and then re-presented to the mind. It turns out that this idea is a really big deal. It's like the golden assumption of most philosophy of mind. What is in the mind is an idea of the world, not the world itself.

6. My hypothesis of multivariable analysis fits within one big paradigm: the cognitive science paradigm, which of course is grounded in the science paradigm, which is grounded in the empiricist paradigm, which has some grounding in the materialist paradigm which is related to the positivist paradigm and has hints of the Newtonian clockwork universe, but then hey....who's counting? Well, actually, I am. Every paradigm has a set of assumptions that make some forms of knowledge more valid than others. There are other paradigms. Perhaps, if somehow, I could unpack the assumptions of each paradigm, or the assumptions that run through all the paradigms, and examine them, I might actually get further than just assuming that the cognitivists, or the connectionists, or the enactivists have it right.

7. Okay, I don't want to sound melodramatic, but it all seemed so simple then, back in the early days. Why did I take five years to write a thesis? All I had to do was read a book and stay focused. I really, really, really liked *Philosophy in the Flesh*. Have I said that already?

8. *Philosophy in the Flesh* isn't just about thought being primarily unconscious. It is a thoroughgoing conceptual system of how thinking works, about what happens on a neuronal level (the creation of synaptic connections between various neurons throughout the brain), and what such neuronal connections mean on a conceptual level (development of metaphor via input from the sensorimotor system experienced alongside affective dimensions of mind and abstract ideas.) The book is very neat and snug and like all good theoretical works it glosses over the missing pieces so that I hardly noticed them gone. I

liked the theory primarily for its willingness to acknowledge the body, as I am always talking about my body knowing. I liked it, also, because it could explain the difference between Plato and Aristotle to me.

9. For Lakoff and Johnson, there is adequate evidence that a concept is actually neurally instantiated in the brain as a series of connections between neurons. In other words, for every metaphor we use to speak of a subjective experience, there are actual neuronal connections between the neurons in our brain associated with the subjective experience and the neurons that are associated with the sensorimotor system. The concepts developed as these neurons form connections are referred to by Lakoff and Johnson as embodied concepts. As humans interact with the world we take in information from the world “out there” via our sensory neurons. Each of us also acts upon the world using our motor neurons. These two activities are continually intertwined. Being in the world involves constant input from the five senses. When the world is acted upon by the body, (basically when we move), new information is obtained. When this sensorimotor information is coupled with intention, the limbic system becomes involved.

For example, I discover, as I move through the world that if I grasp a cookie and manipulate it with my hands, and whatever other action might occur to me, I will come to understand things about that cookie. I’ve thus linked the idea of object manipulation with understanding. Repeatedly making this very connection about objects in the physical world as a child, leads me to the formation of a conceptual connection between object manipulation and understanding in the form of a subjective judgment about the way things work in the world. According to Lakoff and Johnson, that conceptual connection is hardwired into the brain as neurons from one domain, the sensorimotor system, form physical connections with neurons from another domain, the system associated with subjective judgements. The connections formed between neurons in the brain as a concept develops are what lead Lakoff and Johnson to label these concepts as “embodied concepts.”

I can then use the concepts of object manipulation to think and/or talk about understanding. I can *hold a thought, grasp a concept, and play with an idea*. The connections become more complex as I add layers of activity and motivation.⁴ If I really, really, wanted to know about that cookie I might pull the cookie off the table; or climb on

⁴ Note my use of a metaphor of physical objects, layers, to attempt to deal with the abstraction of how conceptual connections become increasingly complex.

top of the table to get to it; or pull the table down; or throw a tantrum and try to force my babysitter to give me a cookie (my parent's would never cave). I learn that applying a force, directly or indirectly, gets me what I want. As a result I learn the conceptual connection between applying a force and obtaining the desired ends. I can now use force metaphors to talk about something like working on this thesis. Thus, I have had to push this thesis to its completion. If I link the metaphors of object manipulation and force, my idea becomes even more complex: If I can just get a *hold* of the *central* idea⁵ of this thesis, I shall be able to *tussle it*⁶ to the *ground*.⁷

Note that each of the metaphors, I've thus described, contains an emotional element. There is a desire for the cookie; a need to get a thesis done. Lakoff and Johnson state that all reasoning involves the limbic system (considered to be the locus of the emotions), pointing out that the capacity to reason is severely disabled in patients for whom the limbic system has been compromised. The neuronal links are not merely formed between the sensorimotor system and abstract concepts, they are connected via the limbic system, via the subjective judgments we make about the world. The ability to reason successfully about any situation is fundamentally related to the ability to form a judgment that places appropriate importance on individual aspects of the situation. Thus, neurons involved in the sensorimotor system, the limbic system, and abstract concepts all link up together, forming a distinct neuronal set of connections. The result is what Lakoff and Johnson refer to as an embodied concept which is "a neural structure that is actually part of, or makes use of, the sensorimotor systems of our brains" (Lakoff & Johnson, 1999, p. 20). The neuronal connections formed as we move through the world become the connections we use to reason about abstract concepts like thinking.

10. The problem with depending on someone else for a theory, in an area I know little about, brain science, is that there is no way I can assess its validity without depending upon someone else for the criteria. Perhaps their theory merely works for me because it fits with the story I've learned to believe, that all that everything that is "real" is either physical, in that it has extension in space, or it is derived in some way from physical entities. The more

⁵ This is a metaphor that connects the abstraction *idea* with a physical location which implies that all other ideas in the thesis will *revolve* or sit in relation to the main idea.

⁶ This is a metaphor that implies this thesis has a life and will of its own and is capable of fighting back.

⁷ This is a metaphor that connects the abstraction *idea* with a location associated with control: *on top* is in control, *on the bottom*, is controlled.

I think about their theory, the more the description offered sounds far more like computational cognitive science than the system described by Varela et al. as emergent. I am left feeling disappointed. I invested such time into reading their tome. I thought it had everything I wanted in it. Now, I am not so sure. I am beginning to question their theory of how the neuronal connections are formed. I am cautioned by the reminder that just because someone writes something down doesn't make it real. Does their theory of metaphor have merit even if it seems unsubstantiated to me?

11. I was so immersed in the wonders of the theory of embodied concepts proposed by Lakoff and Johnson that I almost missed what I now perceive as the jewel in their book. Lakoff and Johnson point out that it is virtually impossible to think about abstract concepts like thinking without the use of metaphor. Whilst each of us may be convinced that thinking is an activity that one does, an actual description of that activity, without relying on metaphor, is as ephemeral as a ghost. Trying to describe it may be, as Smith suggests, the equivalent of trying to define "thingness" (1990, p. 5).⁸

12. Here is a simplified version of some of the metaphors that Lakoff and Johnson present as being used to conceptualize "thought:"

- a. Object manipulation: These metaphors characterize thought as objects that can be acted upon. Thought becomes the object of the verb. "Let me *give* you an idea of what I mean." The act of thinking becomes the act of manipulating ideas.
- b. Mind movement: These metaphors also characterize thought as objects. These objects, however, are the agents of their own change in the mind. Thought becomes the subject of the sentence. "Are your thoughts *going* in every direction?" The act of thinking, here, is characterized by the mind and thoughts in motion.
- c. Seeing/perceiving an idea: Here thoughts are again objects, this time with the character of visual representation. "Have you *got the picture* of what I mean yet?" Thinking becomes either the act of viewing or perceiving. To communicate thoughts to someone else is the act of representing the idea in a pictorial format. "Do you *see* what I mean or shall I *draw* you a *picture*?"

⁸ This emphasis on metaphor makes the transition of the common sense word thought to cognition understandable. Thought may be ephemeral, but cognition is a word that comes complete with a history grounded in the metaphor of brain as computer. Cognition is very specifically materialistic (Varela et al., 1991, p. 42).

- d. Eating: In this case, thinking is the act of consumption of thoughts. “Initially I devoured the ideas of Lakoff and Johnson, now I seem to have lost my *appetite* for learning about embodied concepts.”
- e. Language: Conceptualizing thinking as a language allows us to ponder the process of thought. Does it proceed sequentially? Is there a grammatical structure to thought? “Is it all *Greek* to you?”
- f. Step by step assembly of thought: In this case, thinking is defined as a very specific and systematic way of structuring ideas. All other ways ideas might be structured are not given the status of thought. To have thought poorly is to have failed to construct a reasoned argument. “If I have done this right, I have *built* a well presented, systematic *assembly* of Lakoff and Johnson’s theory about metaphors.”
- g. Adding up ideas: Closely related to the previous case, this metaphor assumes that ideas relate to each other the way that mathematical entities relate. Thinking involves the construction of a mathematical proof. “If I haven’t, none of this will *add-up* for you” (Lakoff & Johnson, 1999, chapter 12).

Note that these metaphors are not consistent with each other. Some are based on the metaphor that the mind is a body; others on the metaphor that the mind is a machine; and still others on the metaphor that ideas are objects. What Lakoff and Johnson do is show how different contemporary discourses within philosophy are dependant upon the particular metaphor for mind and thought that is given precedence within each discourse. Thus if you tend to like the metaphor of the mind as a body, then thoughts become things which can be manipulated and you might find yourself with much in common with the average Anglo-American Analytic philosopher. If you give precedence to the mind as a machine, you’d probably enjoy a conversation with someone immersed in the contemporary philosophy of mind, where the question of whether a computer has a mind has great appeal. If you’re big into thought is language, then you might spend a lot of time analyzing the language we use, or looking for rules that govern thinking that might be similar to the syntax. In other words, the metaphors that we pick tend to determine what we believe. If we forget they are merely metaphors we are in trouble. The metaphor which we have used to help characterize thought begins to take precedence over the actual process thought. The experience of thinking, however, is a subjective experience. That experience is not “in” the physical world the way machines or objects are “in the world.” Metaphors serve us well, but they are still only metaphors.

13. It is intriguing to watch Lakoff and Johnson's theory wrap in on itself. It is only if one metaphorically conceptualizes thought as *in* the brain that one can start thinking about embodied concepts,⁹ the key component of their entire theory, upon which everything else rests. Using the *container* metaphor allows the theory of embodied concepts to be developed. The theory of metaphor also throws a good deal of light on the mind/body problem, if only to permanently place it as unsolvable, for it is next to impossible to think about mind without thinking about it in physical terms. Yet, Lakoff and Johnson point out the experience of mind is a subjective experience, and thus concepts about it are abstractions. Perhaps you can think about mind in ways that don't involve metaphors; I can't.

How does mind relate to body? Is it *in* the brain? Does it *emerge* from the brain? Does it *sit* beside the brain and *do* nothing? Does it *tell* the brain what to do? Does it *communicate*? My immediate response is to rebel at the possibility that mind is an abstraction. But, in this world of things, mind must have a physical existence for any of these descriptions to have a non-metaphorical meaning. The words *sit*, *do*, *tell*, and *communicate* derive from our physical interactions in the world. Their meaning comes initially from the shared understanding of the way things of material substance behave in the world. Thus, one is caught. Either the mind is ephemeral, or it is physical. Suggesting Descartes' solution, that mind is a completely different type of "entity," helps not at all as it leaves the Cartesian divide wide open as the temptation is to continue to look for a physical connection between mind, which is not physical, and brain. Yet, how can there be a physical connection with something that does not have a physical existence?¹⁰ By definition, there can be no physical connection with something that is not physical. It's all rather confusing if you ask me.

14. Make no mistake Lakoff and Johnson are empiricists. They believe in empirically grounded research. They're not into the "pick a metaphor, any metaphor" game. Cognitive scientists don't pick metaphors apparently. They study the brain:

Cognitive scientists looking for a naturally based account of understanding must turn to the brain and body for empirical reasons. They cannot start a priori with a logician's set-theoretical model. Nor will they start a priori with a theory of

⁹ Recall, embodied concepts are concepts that are formed with a corresponding neural structure.

¹⁰ One of my kindly advisors has pointed out that she has a physical connection with the province of Saskatchewan. It is an interesting point. Can one have a physical connection with something? But is that connection physical, or is it emotional yet experienced by the body? The connection problem remains. How does the mind relate to the body that experiences Saskatchewan?

meaning in which meaning has nothing to do with mind, brain, body, or experience, but is given in terms of reference and truth. Meaning in a neurally based cognitive theory can only arise through the body and brain and human experience as encoded in the brain (Lakoff & Johnson, 1999, p. 256).

Metaphor is unavoidable, especially in the abstract conceptual realm, especially theorizing. Lakoff and Johnson's theory is as loaded with metaphor as any other; but, they claim, their metaphors are empirically grounded in evidence.¹¹ That evidence leads to their theory.

15. That evidence also leads to the simplest definition of thinking I can find: Thought is what the brain does when it is doing its thing. Whatever thinking is, it is not available to introspection. Lashley enunciated the view as early as 1960:

No activity of mind is ever conscious. . . . When we think, the connections are just there. We have no perception of how a thought or a sentence is structured. Experience gives us no clue as to the means by which it is organized. (quoted in Hunt, 1995, p. 28)

Sadly, Lashley's observation is really not a definition at all; it is a statement that thought, whatever it is, is not accessible to first person analysis. Nor, is thought any of the 77 verbs (verbs like ponder, analyze, or create), that Smith (1990) lists at the beginning of his book, *to think*.

16. I feel as though I've just ridden a swell of semantic drift. Suddenly, all the words I use to talk about thinking aren't thinking. Lashley and Smith have shifted the meaning of the word. I experience myself pondering, analyzing, and creating. Thinking, however, no longer means those things for the cognitive scientists of the world. The definition has shifted as priority is given to the metaphor of information processing and the question of how a brain actually performs that task. Thinking has become what neurons do as they interact. What am I here for then? Aren't I supposed to be in charge? I realize that I have learned to trust the part of me that knows, and presumably if I form enough neuronal connections as a young impressionable Miss in search of a cookie, I will have a whole slough of possible connections with which to reason. Yet what happened to contemplate? Ponder? And Stew?

17. For Smith, Lashley and, I am beginning to suspect, all cognitive scientists, the brain thinks in neuro-physical or neuro-chemical terms. Neurons think. They do this by sending

¹¹ I think it is possible to make the claim here that the metaphor we pick will determine the evidence we look for.

out chemicals to each other, forming new synaptic connections, or global patterns, and actively sending out requests for more information about specific things to which the body needs to pay attention.¹² The mechanism for the process of thought is considered to be either symbolic computation (cognitivist approach) or in a more holistic, emergent global pattern sort of way (connectionist approach). Regardless of whether the brain is characterized by the computational model or the connectionist model,¹³ thinking happens in the brain, unbidden and inaccessible to conscious awareness. Experience is the product of such thinking.

Smith:

Absence of awareness of thinking is not absence of thinking. Thought is never conscious. What we ‘hear’ and ‘see’ in our head when we imagine ourselves thinking is a product of thinking rather than thinking itself. Thinking underlies all the private ‘in the head’ phenomena of which we are unaware, it underlies what we say when we talk to ourselves as it does when we talk to others. (p. 13)

18. Both Lakoff and Johnson (1999), and Jaynes (1976) use the example of learning a language and how conscious attention to putting words, sentences, and paragraphs like the ones I’m creating now, is really not required and, indeed, would impede the writing of this thesis even more than my own rather deliberate attempts to procrastinate and stall throughout the whole process.

Imagine if I constantly had to ‘hold’ all the things I have learned about writing something down, at the forefront of my own awareness. I would be asking and thinking out everything from the way to hold a pen, to the way to shape a letter, even the minute skill and decision to lift the pen at the end of each word. I would sound out each word in order to spell it, and have to stop at the end of each one to determine if any grammar might be required.¹⁴ I would have to negotiate every motion of my pen so that it would match with the sounds in my head, which I would have to interpret as words, separating phonemes, and words, and words and sentences and somehow still ultimately having an understanding of the sense I am making. And you, too, in your negotiation with this thesis, should you have

¹² One must be careful not to mistake the description of an actively searching brain for a homunculus that lives inside the brain. Intention is traditionally ascribed to the self to imply that the brain has intention. This ascribing tempts one to assume that there is a little self locked away in those little neurons.

¹³ Whether thinking is a linear process or done as a group activity by our little neurons is still a matter of much hotly contested debate. For explanation to the multiple theories on the cognitive paradigm refer to Capra (1996) and Varela et al. (1991).

¹⁴ There are some that might wish I held this skill just a little more consciously.

made it this far, would have to negotiate and consciously attend to the very complicated process that one takes years to learn well, the art that we call reading. You may by now have vague memories of every thought, every lesson, every moment you poured (learning as a liquid metaphor?) into memorizing rules of phonics, rules of writing, grammar, how to construct a sentence, a paragraph, a story, an essay. Indeed, the level of your headache right now, is indicative of how much sense I have made, and how much energy you have had to put into trying to make sense out of what you have read. If I have done my job successfully, you will simply read this text with ease, unaware of the energy you are pouring in deciphering this coded text. If I have been an abysmal failure, you shall be stopping and looking back, trying to sort through the grammar, the conventions I have abused, in an attempt to find meaning. In short, you will have to make what you are accustomed to having at the back of your mind (yes it's a location metaphor) at the front of your mind. And you might just put down the text and wander off to take a pain killer and read something that does not hurt your mind quite so much.

19. It seems that I have strayed a long way from my theory of multivariable analysis taking place in the brain. Now, I am confronted with issues I had not pondered when I began my quest to justify the way I write. How do I define thinking? Do I follow the cognitivists and posit it as something that occurs in the brain and not in the mind? What is the difference between the brain, and the mind? Is it merely a semantic difference, or is there a real difference?

Lost In the Woods: Consciousness in Question

Consider Jaynes' (1976) take on the point of consciousness in *The Origin of Consciousness in the Breakdown of the Bicameral Mind*. He offers a commonsense argument about the apparent uselessness of consciousness and then proceeds to offer an explanation of consciousness as a relatively new evolutionary phenomenon.¹⁵ Stated simply, "consciousness is a much smaller part of our mental life than we are conscious of, because we cannot be conscious of what we are not conscious of" (p. 23). He proceeds to explain point by point what he regards as a series of misconceptions of consciousness.

- Consciousness is not a copy of experience.

There is selectivity to experience. Only some of what we each sense actually makes it to consciousness. This phenomenon of sensory screening is described by Davis, Sumara and Luce Kapler (2000) in *Engaging Minds*. They compare the eleven billion bits of sensory information that impinge on the senses every second to the 10-40 bits of information which apparently reach consciousness (p. 6). The vast difference between the two measurements points out the substantial difference between sensation, of which we are mostly consciously unaware, and perception, of which we are, by definition, aware. The sheer overwhelming nature of the information provided to the brain by the senses is beyond my comprehension. What if one was conscious of everything? My consciousness seems full already; could I be aware of even more?

- Consciousness is not necessary for concepts.

Jaynes points out that we cannot, actually, be conscious of, or "think about," a generality. Our basic concepts like tree, shoe, or dog, all contain an element of specificity or particularity to them when we entertain thoughts of them in our conscious arena. So that whilst we may know we understand the basic concept of shoe, when asked to summon the idea of shoe, what appears upon our little mental stage is *a* shoe, or a pile of shoes. This description of the unavailability to consciousness of a generality, at the same time as one understands the meaning of the generality, points out the complexity of the interaction between consciousness and the unconscious.

- Consciousness is not necessary for learning.

¹⁵ Jaynes' theory has been criticized by many. Despite the inadequacy of his theory, (see Hunt, 1995), his initial look at consciousness provides the simplest description of why thinking might be thought of as primarily non-conscious or "the business of the brain."

Jaynes' example here is of the classic Pavlovian variety. Subjects who repeatedly hear a lovely piece of music at lunch will eventually salivate when they hear that music unaccompanied by food. Such salivation, Jaynes states, is a case of "automatic learning." Intriguingly, subjects who are aware of the connection, that someone is going to try to "brainwash" them into salivating, will not salivate. Thus, Jaynes points out, conscious attention actually decreases the ability to learn.¹⁶ Davis et al. (2000) concur:

It appears that drawing conscious attention to specific aspects of these sorts of interactions can actually cause them to fall apart Consciousness is often too small to accommodate both an engagement in an activity and an awareness of one's self or one's actions. (p. 7)

- Consciousness is not necessary for thinking.

Jaynes does distinguish between the sense of thinking which is "thinking about..." or "thinking of..." something which he says is conscious. In this sense, thinking implies the experience of entertaining a thought on our mental stage. He says, however, that in reality, "one does one's thinking before one knows what one is to think about" (p. 39). What Jaynes means is that the experience of entertaining a thought is not the same thing as the processing of the thought on the neuronal level.

It would appear that, at least at the level of the involvement of the brain, all the cognitive science people I've cited thus far agree. Thinking is the business of the brain. That's a problem as it raises the question: What is consciousness for? If everything that a human does can be explained in terms of neurons interacting, regardless of the model of brain functioning, cognitivist, connectionist, or enactivist, then there seems to be no explanation for why anyone ought to have any subjective experience at all? What is it that consciousness does for any of us that couldn't be done with just neurons firing? What is the point of the subjective experience we associate with consciousness? Why am I conscious?

¹⁶ Of course, others might not agree that salivating to Brahms is actually learning, which raises the question of how does learning get defined and by whom. Is automatic learning a good thing?

CHAPTER FIVE: SELF, THE FIRST CONCENTRIC RING

The Interview: Part Two

Tom Brown's grandfather:

By fragmentation and absorption in a single track, you diminish your tracking ability. All tracks should be viewed as concentric rings, influenced and influencing the worlds beyond. A track is the beginning and end of all concentric rings. Vary your vision of the track and stay conscious of the worlds beyond. (p. 22)

Superego: Why on earth have you labelled this chapter Self? What ever happened to “Why am I conscious?”

Me: I labelled it that way because Self is what this next section is about.

Superego: Okay, but how did you get to a discussion about Self from a discussion of the question about the purpose of consciousness? For that matter, why did you even bother to ask the question about the purpose of consciousness? What has that to do with what you said you were going to discuss the last time we talked, which was, I believe, conceptual boundaries?

Me: Remember when I said I was going to tell you a story of my journey?

Superego: Yes.

Me: Well, the last part I told you was about the first part of my journey.

Superego: What do you mean the last part?

Me: I mean the entire chapter, *Picking Up the String*. I began with a hypothesis how I thought the brain works through multivariable analysis and my belief that it must be in the unconscious that that processing gets done. That led me to the work of Lakoff and Johnson, which led me in turn to a collection of cognitive scientists that supported their statement that 95% of thought is unconscious.

Superego: Fine. But you end up questioning the role of consciousness. I still don't see how that relates to what you have said the thesis is about.

Me: It doesn't relate directly to the topic of conceptual boundaries. It relates to the story of my journey. In order to understand what I was reading about the unconscious, and the

challenge Jaynes poses to the role of consciousness in thought, I started to read in the area of consciousness studies.

Superego: So you're saying that question, "Why am I conscious?" is what drew you forward into the next set of questions you asked.

Me: Yes, a new set of questions emerged with questions about consciousness that I had not expected.

Superego: So how did those questions take you to the concept of "Self"?

Me: The search to understand consciousness brought forth a collection of thoughts about how consciousness and the unconscious might interact. I had always had an intuition that the interaction between consciousness and the unconscious was something that was going to be addressed. To answer that question I really needed to define what I meant by the unconscious. In order to do that I felt I needed to understand consciousness. I had an inchoate understanding that the boundaries we use to demarcate the concepts of consciousness and the unconscious would be fundamental in being able to speak about the relationship between the two entities. So while the boundary discussion was present in a nascent sort of way at this point in my journey, it was still not how I was formulating my understanding of my reading. I began to think of the journey in terms of boundaries only much later in the process.

Superego: So in trying to define your terms your questions changed?

Me: Yes, the reading in the area of consciousness studies signalled the beginning of a whole new set of questions. I am not sure if I was consciously aware at the time that those questions were emerging for me. I simply began to read in the area of the philosophy of mind. In essence, it is here that I began to really began to vary my vision of my track. I was looking, as Tom Brown's grandfather had said I ought, to see beyond the track to the world beyond.

Superego: What was important at the time?

Me: What immediately grabbed my attention in my reading in consciousness studies were the multiple descriptions of multiple ways of being conscious. I had really given no thought to that. I stumbled upon the *Journal of Transpersonal Studies* (1969-2003) through reading Hunt's (1995) exploration of the issues of consciousness. I actually went to the University of Alberta to get some issues of it to read. I didn't know what to do with the sorts of articles I read. They ranged from discussions of numinous experiences (Goleman, Smith, & Dass, 1985; Waldron, 1998), to embodied writing (Anderson, 2001), to experiences of tears of wonder joy (Anderson, 2001), to discussions on perennial philosophy (Ferrer, 2000) and

transpersonal psychology (Wilber, 1995). There was even an article which suggested an education program ought to be developed to help people experience these altered states (Robers, 1989). I really had no idea what to do with the discussion which focused on altered states of consciousness. I drifted into some more academically acceptable, to my mind, discussions of consciousness, discovering the compilations of readings on consciousness edited by Ornstein (1978) and, Hameroff, Kasniak and Scott (1996). While my concern with the issue of altered states of consciousness foreshadows the questions I ask about connection later in the thesis, as I read I began to ask, “Who am I?”

I became intrigued with questions about how the “Self” gets conceptualized. After reading *Philosophy in the Flesh*, I was aware of metaphors everywhere. I brought this awareness to my readings in the philosophy of mind. I became intrigued by those metaphors that were used in the discourse to conceptualize the boundaries between mind and brain. What began to draw me forward into the material was the feeling that there was something fundamentally wrong with one of the metaphors used in everyday parlance to characterize the relationship between Self and each of mind and body. I say, “I have a mind; I have a body.” Foreshadowing a bit of what I say in my third chapter, there was a feeling that this characterization of mind and body as being possessed by the Self is problematic because it makes Self separate from the physical body. The body is to be distrusted because it can deceive the mind. The body, becomes, something foreign to the mind.

All of these ideas came from reading in different areas in consciousness studies. What intrigued me was the emotional commitment I have, and I think others have to that conception of Self as separate from the body. The readings I did in consciousness studies were woven in and through the readings and experiences that I will tell you about in the chapter that follows this one. Everything was read with a background interpretive frame shaped by Lakoff and Johnson’s discussion of metaphor. Their theory about the “embodied” nature of concepts became almost completely irrelevant to me. What became important was noticing the everyday metaphors used to characterize subjective experiences.

Superego: So what happens now?

Me: I’m going to tell you five stories. They are drawn from readings in five different areas of consciousness studies. I put them here to draw attention to particular aspects of the discourse that highlight questions of consciousness and how it relates to conceptions of the Self? For me, these stories bring forth my own emotional commitment to being that Self that is somehow separate from my body, as well as my own intuitive understanding,

expressed in the section of this thesis entitled *Tracker* that I am not just my consciously aware Self; I am more than that.

Superego: I've seen these stories. I think we should talk after each section to discuss the particular reason you chose to include each story.

Me: That will work for me. I'll start with my neighbour. Her story is about the intuitive commitment to the experience of experience. There is something that it is like to be her. That would be the key difference between her and her dolls.

Side Tracks

Side Track One: My neighbour and her dolls

I went for a walk today. I stepped into the day and met my neighbour almost instantly. It was a somewhat serendipitous encounter. She is a bright, involved young girl, approximately six years of age. She was taking her dolls for a sleigh ride. We walked together to the end of the block where she identified a pile of snow which had been created, I knew, by a snowplough, as the pile of snow she had made. Not only was it her pile of snow, but it was also, apparently, that very pile of snow upon which she and her dolls frequently went for sleigh rides.

I left her there contentedly conversing with each of her five dolls. The dolls were all clustered on her little sleigh, each of them staring out at the world in the way that dolls do. As I wandered off I heard her deep in conversation with the five of them, all of whom had, of course, their very own names.

It was a perfect sort of day outside. As I write this now, I am sitting beside my kitchen window. The sun is bright and hot. The snow melts on the roads. The shadows of the trees are crisp. For some reason the sight of crisp shadows invigorates me. It is a sign of the intensity of light, of the pure is-ness of the day. On such a spring day as this, the world smells fresh. People fling open their windows and children venture outside to play in the puddles on the street. For some reason, the ridiculous sounding of cars as they tear through puddles makes me laugh. On a day such as today, everyone is a child, delighting in games of sound and speed. You can feel lightness in the air that has as much to do with the final passing into spring as it has to do with the lightness of spirit that accompanies a window finally flung open.

I was thinking of my neighbour and her conversation with her dolls as I walked, for it almost seemed as though she is convinced those dolls hear her, and are experiencing the same world as she, the same level of joy and laughter. But I am a grown-up. I know better. Those dolls experience nothing of this world. The only one of the six of them having any fun at all is my neighbour, and it is precisely because she “experiences” the world.

Dolls are becoming much more complex these days. I suppose, if I enter into the tradition of the philosophy of mind discourse and entertain a thought experiment, one might imagine a day when dolls might go sledding without their human child counterpart. Of course we wouldn't refer to them as dolls; perhaps they might earn names like C3PO. The question that I would like to entertain is regarding the difference between my neighbour and

her dolls. The simple answer is, of course, that she is alive, whilst the dolls are not. I suppose, if pressed, I could differentiate a bit more. My neighbour pulls the sleigh, eats her Wheaties and expresses her frustrations with the inequalities of her world by letting her parents know very clearly in an utterly non-verbal symphony of noise, commonly known as a temper tantrum, outside my window at night. Dolls are neither emancipated nor capable of caring about their status and powerlessness in the face of the world.

If my neighbour were to replace her present wide-eyed companions with one of more sophistication, perhaps C3PO, the difference between her and her doll becomes far less marked. Give a doll the ability to sense the world and to act upon it and my only differentiation between my neighbour and her dolls is merely my belief that my neighbour is conscious and her doll is not.

For my neighbour and her dolls, despite the dolls assumed willingness to participate in her world, it is her will that gets them to the hillside. It is her ability to intend something of her life that separates her from her dolls. Perhaps more importantly, it is she that has all the fun. It is she that saw the pile of snow, named it as hers and felt the wind on her face as she flew down the hill in the company of the five inert bodies at her side.

I have spent much time discussing my neighbour and her experience precisely because there is “something that it is like” to be her. In other words, my neighbour has a subjective experience that is particular to her. Of course, I am only interpreting the signs of things, for there is the rather odd possibility that I am the only one that experiences anything at all. Perhaps the world is really just an assortment of droids.

What I do believe, perhaps somewhat foolishly, is that my young neighbour and I have something else in common. We both have the capacity, although only partially, to cease to experience at will. I close my eyes, I am effectively blind. I plug my ears, I am effectively deaf. At night, I go to sleep if I am not too obsessed with the thesis writing. I go to sleep and apparently experience nothing at all for most of that time. All this awareness is quite familiar to me, and I presume to you. If I talk in my sleep, if I sleepwalk, if I get up and make a sandwich whilst in my sleep, the next morning, upon being alerted of my actions, I am disturbed because I did not consciously intend to do any of those things. I go to bed expecting to sleep, not dance a jig or recite Hamlet or do any other such seemingly lucid thing. Yet, I may appear to everyone present in the moment of my sleep disturbed behaviour as though making a sandwich is exactly what I consciously intend to do.

As a species we have countless medical disorders which occur when this rather simple relation between what we call the self and consciousness go askew. Indeed, it

would appear that it is a basic tenet within our legal system, that if I am not aware, I cannot be held responsible for my actions. Hence, sleepwalking is, from what I understand, a justifiable defence, as are fugue states, schizophrenia, and psychotic episodes.

But as I sleepwalk, am I not aware? Is there not an experiencing body? How do I navigate around chairs? Am I really just a droid, with no consciousness, or am I in an alternate state? Just who am I when I am not me?

Superego: Nice story Brenda, but what on earth does that last question mean?

Me: I think that the interesting question as I explore the basic ideas about consciousness, involves the emotional commitment I have to this subjective experience of “Me.” As Velmans (2000) states in the opening of his book on consciousness, “Being conscious is central to being human”(p. 3) . There is a “me” that I experience. I have an intuitive dread of being a zombie, of doing things of which I am somehow unaware. While I am not uncomfortable with the thought that my neighbours doll might someday behave as though they are conscious beings, it is not behaviour that I believe marks a conscious being. Rather, it is the ability to experience a phenomenal world that makes us conscious. My commitment to the “experience of being” as a mark of being human is what causes me to dread the possibility of being a zombie.

Not only do I have a commitment to my sense of self deriving from being an experiencing being, but I am picky about what constitutes experience as it relates to my identity. Any experience I might have in which I deviate from my normal state of consciousness, becomes somehow, not “me.” I am not “me” at particular times, like if I sleepwalk, or if I am psychotic, or under extreme emotional distress. When I sleep, even when I dream, I am not quite me. I shudder to think of something like multiple personality disorder in which there might be multiple personalities inside me. I have a strange fear that somehow those personalities will not be me and that they will be in my body, occupying it, making me do things I don’t want to do. Perhaps they might even know that I exist, but I don’t know they exist.

Superego: So what?

Me: I think it is important to have a sense of who one is. I am committed to being this conscious self. I am not the part of me that is not conscious. Nor am I me if my conscious self is somehow altered. The subjective experience of this conscious Self, my ability to build a continuous meaningful story around that experience is fundamentally important to

my conception of who I am. That's what I want to point out in the story of my neighbour and her dolls.

Superego: What about your next story?

Me: It's the story of a strange, quirky condition known as blindsight. The phenomenon has been used in the discussion of consciousness studies to propose that consciousness is absolutely unnecessary for functioning.

Superego: Who proposes that?

Me: Paul and Patricia Churchland, among others (Holt, 2003). They are two of the most strident voices in the area of philosophy of mind. For them, mind is the same as brain. Consciousness, it would appear, is nothing but a perk of existence, a useless epiphenomenon.

Superego: And you tell the story why?

Me: I tell the story because it draws out for me the emotional commitment to an experiencing Self in a dramatic way and it begins to point out the connection between the unconscious aspects of mind, and consciousness. The boundary between consciousness and the unconscious is not a simple one.

Side Track Two: Not Conscious?

Descartes had a thing about thinking.
"Cogito," he muttered,
and convinced himself that
he was.

But what if?
Descartes just wrote
Cogito
Whilst he was sleeping
Would he still be?
For being unaware that he thought?

Descartes had a thing about thinking. "Cogito," he mused, and convinced himself that he was. I do not think Descartes meant that he thought in a particular way; I think he meant he experienced thoughts. Descartes might be a tad disconcerted by Lashley's claim that one does not experience thinking. What would he do with "blindsight," or any other of the strange dissociation cases discussed by Holt in his tour of the philosophical implications of blindsight for consciousness?

The term blindsight seems paradoxical. Yet, for a person having suffered damage to a rather particular portion of his or her brain,¹⁷ the term describes the phenomenon perfectly. For that person is blind with the ability to act as though he or she could see. The experience of blindness is not the same as simply closing one's eyes, or removing one's glasses if one is horrifically nearsighted. There is, also, no experience of blindness with blurry spots where one cannot see; instead, there is merely a lack of experience. Blindsight results in a decrease in the size of one's visual field. One just doesn't see as much. There is no concomitant awareness that one is not seeing what might be seen.

Persons suffering from this strange disorder will shift their gaze to a picture shown to them in the "blind" part of their visual field (Ratey, 2001, p. 102). Ask them to identify whether a card exposed only in the blind spot reads X or O and they will do so unerringly

¹⁷ Blindsight apparently results from damage to the primary visual cortex (Holt, 2003, p. 19; Ratey, 2001, p. 102). As the damage is usually the result of a trauma experienced in life, only one hemisphere is affected. The eyes operate by sending information from each eye to each hemisphere. Information from the right part of both eyes goes to the left hemisphere. Information from the left part of each eye goes to the right hemisphere (Ornstein, 1997, p. 74). In the case of blindsight, the visual field on one side of each eye is compromised.

whilst at the same time muttering things about guesswork (Holt, 2003, p. 23). Their hands will adjust to pick up objects of strange size, shape and orientation placed in their blind spot just like any sighted person might, but only if they are prompted to do so (p. 23).

Owen Flanagan (cited in Holt, p. 33) differentiates between informational and experiential sensitivity. Informational sensitivity is required for experiential sensitivity, but not vice versa. In the case of blindsight, the person is informationally sensitive but not experientially so. In other words, blindsight indicates that information can get in to the brain, and be acted upon, without there ever being any form of conscious awareness.

Superego: Hi Brenda, I'm back.

Me: Hi, I know, you want me to sum up.

Superego: Indeed I do.

Me: Okay. Blindsight is a specific case of functioning without conscious awareness. The body is perfectly capable of sensing, monitoring and responding to the environment without there being any awareness.

Superego: But the body does that all the time. It monitors body temperature and keeps it relatively constant without any conscious experience of that monitoring.

Me: Indeed it does, but blindsight is a case of very specific functioning that is normally accompanied by a conscious experience. Apparently each of the senses has a corresponding syndrome. One can respond to smell without the experience of a smell. One can respond to sound without the experience of the sound. As I read about blindsight I felt the slippery slope to zombiehood developing. Wouldn't being a zombie entail being informationally sensitive but experientially unaware of everything?

The responses I received from friends as I told the story of blindsight ranged from expressions of fascination to complete dismissal of the possibility that it might actually occur. The dismissals indicated for me something again about the nature of the commitment to the Self that experiences. To navigate through the world based on visual information one must be able to experience the world visually. What is my experience of if I have no sensory input? Finding out about the phenomenon of blindsight brought forward a basic question about who I am.

Superego: What question?

Me: Am I still me if I don't experience anything at all?

Superego: Is that why you included the story? Why is that question so important?

Me: Because I think that the commitment to an experiencing Self shapes an attitude towards any part of the body's functioning that is not experienced. I am not just a body responding to the environment. I must be more.

Superego: Okay, would you like to frame the next story?

Me: Polanyi's theory of tacit knowing points to the close interrelationship between sensory inputs of which one may be unconscious and the awareness of sensory input which is conscious.¹⁸ The point of this next story is to draw attention to the way in which subjective experience is differentiated from unconscious experience. Unlike the experience of blindsight, where only a few people experience the phenomenon of being informationally aware whilst being experientially unaware, tacit knowing is about the same type of phenomenon being present in all people.

¹⁸ Recall the distinction between the amount of information received by the senses and of that which is perceived. There are eleven billion bits of sensory information that impinge on the senses every second to the 10-40 bits of information which apparently reach consciousness (Davis et al., p. 6).

Side Track Three: What My Body Knows

Polanyi (1966) built upon the gestaltist¹⁹ conceptualization of part/whole interrelationships with his theory of ‘tacit knowing.’ He was fascinated by that which one knows by *feel* as it were. Let me give you an example. Women are often credited with women’s intuition, and whilst many do not acknowledge whether it exists or not, few doubt or would dare to doubt its importance when a woman is walking down a dark street at night. Something shifts in the atmosphere and suddenly I am afraid. Intuition? Perhaps.

Polanyi might describe it as a case of tacit knowing. Information is being received, but not acknowledged in perception. One might say it is “sub-threshold” for conscious attention. Something changes in the environment. Whilst I am unaware what my body has registered of the change, I am aware of the result it produced. My heart is suddenly clamouring and I act on this conscious awareness. If pressed for why I am suddenly afraid, I might mutter things about my gut telling me something is wrong whilst in reality, it is because my body registered slight alterations in the environment and reacted with a more relevant emotion of flight or fight.²⁰ It is a reaction which bypasses the conscious deliberation of noticing a shadow, a shape, a smell, a sound and wondering if rationally, one ought to be afraid.

Polanyi held that this theory of a way of experiencing the environment applied not just to survival instincts, to all the learning we do that seems spontaneous or instinctual. As I think of my friend, the fishing guide, I realize this might be what happened for him. Perhaps what he noticed was a pattern created out of all the multiple possibilities that make up an environment. What he noticed/ knew was about the patterns of the multiplicities and what shifts in one or more factors might mean. Perhaps he knew the way one might know a storm is coming and only later relate that it was because of the smell in the air, a tic in the eye, a slightly different colour to the tips of the leaves of a tree indicating a shift in wind direction or a stilling of the wind, a different feeling on the skin caused by increased humidity or a sudden change in barometric pressure, or the sudden quiet or loud behaviour of the local fauna.

What Polanyi and the Gestaltists hinted at is the possibility of perception and conscious attention being two very distinct though intimately intertwined aspects of human

¹⁹ The relationship of figure to ground, which can also be characterized as the relationship between the part and the whole, is fundamental gestalt psychology. I will discuss the theories of this branch of psychology in my final story.

²⁰ To be more scientific – it reacted by producing more adrenalin.

experience. The ‘distal’ part of tacit knowing, information received from the environment via the senses, is only partially available to conscious attention. Whitehead described the division between what is noticed in the environment and what is not as what he thought should be the first principle of epistemology. What we notice are the changes: “The changeable, shifting aspects of our relations to nature are the primary topics for conscious observation” (1938, p. 41). Indeed, when I pay attention to my ability to notice the changes and my ability to shift attention at will from the feeling of this pen in my hand, to how my shoe feels on my foot, to the sight of the slight shadow my pen makes as my hand moves across my page, to the light of the light standard down the street that is moving in from my right side, to the hair on my face, and my bottom that is far too sore from sitting on this stoop far too long, it becomes obvious that the level of ‘overwhelmingness’ that I feel at the thought of having to write a thesis is really nothing to how bloody overwhelming it would be if I had to pay attention to every last one of my senses and all their input and this insistent internal dialogue in my head that seems to be producing these words.

I have friends who tell me how obnoxious it is when something goes wrong with this sensory screening device. One tells me of the insistent smell inside her nose that won’t go away, another of the incessant ringing in his ears. I had this condition briefly, many years ago, having overdosed on far too much aspirin instead of leaving work as I should have done. There is nothing more irritating than constant conscious awareness of my senses. Indeed, I went through a time following surgery where I could hear and feel every beat of my heart, in every part of my body, continuously. Now there is a reason to be concerned, for this most insistent part of one’s being is silent unless you really pay attention.

What this ramble about sensory awareness indicates is really the selective nature of conscious attention. Davies et al. (2000) characterize conscious attention as analogous to a roving flashlight, intermittently shining a metaphorical light on a whole variety of unconscious experience. Polanyi’s observation points to the idea that one’s body doesn’t just stop monitoring the environment. In fact, when I think about it, it would make sense that if my body self-monitors and self-adjusts continually, making sure to move Calcium out of my teeth when I drink too much Coca Cola, keeps me warm when I am cold, and causes my hands and feet to sweat when I am nervous,²¹ certainly, my body would continue to monitor my external environment as well as my internal one.

²¹ I am not sure Darwin’s theory of evolution can explain the ecological advantage provided by sweaty feet at one’s thesis defence.

It seems to be rather unavoidable that I am not aware of everything that my body is. It knows more than I.

Me: No, you needn't ask, I'll tell you how tacit knowing fits with the theme of Self.

Superego: Why thank you. I was getting tired of writing at the end of each section "How does this relate?"

Me: No problem. The whole chapter is about the way Self gets conceptualized in western society and the emotional commitment that seems to be apparent to that conception of Self. Polanyi points to one possible way in which that conceptualization is problematic. Body is assumed to be separate from the Self. The experiencing, functioning body is not what is conceptualized as Self, or even an aspect of Self. "Who I am" is what is experienced consciously. If my body was a significant part of that conceptualization, then I wouldn't have so many problems accepting the possibility of zombieness, or altered states of consciousness as aspects of the expression of my Self. The relationship between Self and the body is a numerical one. Presently, I think Self and body are conceptualized either as two separate sets, with little or no overlap between them, or as the Self being contained in the body. But there are other possible ways to represent that relationship. For instance, one could assume that the Self contains the body.

Superego: So what you're saying is that the conceptual boundaries that are presently assumed around the concepts of the Self and the body need to be examined?

Me: Yes, because at the present moment, as I've left this last discussion, my body, knows more than I do. That is problematic. Just what are the boundaries between consciousness and the unconscious? Between the experiencing Self and the body? Are these concepts really representative of separate entities, or might they be merely abstractions, convenient categories?

Superego: I assume you have yet another story?

Me: Yes, this one is about another strange medical phenomenon that occurs when the part of the brain that connects two hemispheres gets cut.

Superego: What happens?

Me: Strangely enough, you get two minds, or so it seems. One researcher even suggests that those alternate consciousnesses are always present. Imagine that, it is almost the exact opposite of the phenomenon of blindsight and the questions that phenomenon raises. Instead of dealing with the possibility of having no conscious experience, now there is the possibility that there might actually be competing conscious experiences.

Side Track Four: Multiple Me's

It is possible to root around in a person's head and sever the neurons that connect the two hemispheres.²² Forty years ago, Roger Sperry, Joseph Bogen and Philip Vogel performed this surgery on severe epileptics. The severing of the neurons helped to decrease the severity of their seizures, keeping the seizures localized to one hemisphere. The surgery resulted in a rush of research on split brain patients (Ratey, 2001).

What is strange about these patients is the seemingly bizarre behaviours they express. Ornstein, a student of Sperry's at the time, describes their unique traits:

At times their mind splits become clear: One split-brain man menaced his wife with his left hand, while the right pushed the attacking hand away. And, shades of Brown-Séguard, these persons have two self-images, as they have two body images, each representing the characteristic approach of each hemisphere. When one split-brain person was asked about his ambition in life (the answers given separately by pointing with each hand), the right hemisphere (left hand) pointed to a racing driver, the left hemisphere (right hand) to a draftsman. Perhaps the whole person wanted to design racing cars. (1997, p. 66)

Normally, in right handed split brain patients a person can only verbalize names of objects placed into the left hand. Objects placed in their left hand remain unnamed, although the patients can pick out a picture corresponding to each object. Thus, the left hemisphere, in right handed people, is associated with verbal ability, and the right hemisphere is considered to lack these abilities.

Victor Mark (1996) investigated one female patient who seemed to have language abilities associated with each of the hemispheres. I read the report and felt horrified for the poor woman. She came into an interview and announced that her left hand was numb. So the researcher repeated what she had said back to her. "When I echoed the statement, she said that she was *not* numb, and then the torrent of alternating "Yes!" and "No!" replies ensued, followed by a despairing "I don't know!" (1996p. 191) Such moments of indecision were common for her and she apparently frequently asked, "Why do I lie to you?" (p. 191)

According to Mark, his observations of her suggest the possibility of dual consciousness. One body, two experiences of consciousness:

²² The brain is separated into two distinct portions, the right and left hemispheres. These hemispheres are connected by the corpus collosum, a collection of neurons that run between the two hemispheres. It is presumed that these neurons allow the two hemispheres to communicate with each other, a rather important function as information from the body tends to arrive in only one of the hemispheres. My right hand sends information to the left hemisphere and its motion is likewise controlled by the left hemisphere. The left hand sends information to the right hemisphere (see Ornstein, p. 64-69).

The foregoing observations suggest that each cerebral hemisphere in this patient maintained opinions and desires different from the other in certain circumstances, comprehended speech and print at least on a basic level, and could announce its views through speaking, pointing, and distinct gesture (counting with fingers). Although the defining characteristics of consciousness are controversial, the appearance of two entities within the same person, each capable of understanding conversation and expressing unambiguously in words and gesture, suggests that each hemisphere could be considered “conscious” in commonly understood terms. Furthermore, during these manifestations of dual hemispheric consciousness it appeared that neither hemisphere was aware of the thoughts of the other prior to overt expression. (p. 193)

I don't know how such a possibility impacts on you, but it shakes me up but good. Granted I have an intact corpus callosum, but is my consciousness unitary, or is there some other consciousness playing out in my body of which I am not aware. Perhaps this experiencing me is really only one consciousness of many, perhaps it is the left verbal hemisphere only. What if I've got a right hemisphere consciousness locked away somewhere and I'm just silencing it? The implication of the research seems to be that the corpus callosum is required for the unitary nature of consciousness. Maybe the corpus callosum is required so that my various consciousnesses can argue and declare a winner without letting me in on the debate. Perhaps the multiple me's in here are merely presenting a united front. Even worse, what if the one fear that is justified is that I might be deluded into thinking that there aren't more me's? What if all of us have multiple personality disorder and only those who display it have a more egalitarian system for expression. Perhaps there are personalities inside that are “locked in,” unable to get out.

Henninger (1996) discusses experiments that show that the left hemispheres tend to take control in split brained patients. Right hands will grab pens out of left hands. One patient, when shown a picture of a cat to the left half of his visual field (that goes to the right, non-verbal hemisphere) and asked to write the name of the object with his left hand got out the letters “ca” before the right hand grabbed the pen and wrote bottle (p. 204) The right hand, associated with the left brain, the part of the brain with no access to the picture of the cat, but with a plethora of words at its disposal, made up the answer. The left hand, associated with the right brain, the part of the brain presumably with access to the information coming from the eyes, which doesn't have much verbal capacity, had a pretty good idea what the object was and probably would have pointed to a picture of a cat, got bossed out of the picture.

Henninger (1996) has this to say about the bossiness of the verbal hemisphere:

The tendency of the left hemisphere to take control in the testing situation of the commissurotomy patient may be related to our tendency to equate consciousness

with verbal consciousness. We commonly consider consciousness to be the content of awareness which we can describe verbally to our inner verbal stream of thought. It is possible but difficult to communicate content that we are unable to verbalize and methodological constraints often limit studies to verbal consciousness. It is easy to overlook that consciousness itself has both verbal and nonverbal elements. (p. 204)

Now, pay attention to what comes next. According to Henninger there is the possibility of a secondary parallel perceptual system, which is “primarily nonverbal,” and that primarily non-verbal system may actually have its expression dominated by “the verbally dominant left hemisphere.” Research has apparently shown this domination in the “callosally-intact person” (pp. 204-205).

Callosally intact, that is me. It is probably you. My left hemisphere inhibits my right hemisphere. Henninger says the left hemisphere frequently behaves in such a power hungry way.²³ What is required is a research methodology that will prevent the left hemisphere from taking control of the processing in the experimental setting. Quite frankly, I too, would like to know, what is it my right brain knows that my left brain silences?²⁴ How do you de-privilege a hemisphere?

Superego: You know what’s coming next.

Me: Justify why I’ve included this piece of analysis?

Superego: Indeed.

Me: Every time I read a description of personality issues associated with the brain, I come back to the question of the Self. Who am I? If I conceptualize my self based on the narrative stream that creates a meaningful story for me, what do I do with those aspects of awareness that are nonverbal? Are they expressed? Are they experienced? Are there aspects of me that I suppress because they are not verbal?

I once worked at a camp for the disabled. It was there I that I first met individuals who are literally “locked in,” unable to express themselves in any way. Perhaps I am just wildly imaginative, but as I read about possible experiencing selves unable to express themselves, I

²³ Okay, that’s not her characterization; it’s mine. But what else do you call one hemisphere dominating the other hemisphere if not power hungry?

²⁴ How to get my right hemisphere safe enough, outside of the environment that privileges the dominant class of hemisphere, that deprivileges the right hemisphere’s ways of knowing and instead privileges the left, perhaps this is the true point of multicultural education.

am forced to admit to a real fear that there might be alternate selves inside me striving to express themselves and unable to do so.

Superego: Is that why you included this story.

Me: Yes, but there is another reason. It is the beginning of a foreshadowing of a theme, one which will appear in the last chapter in the book that you will see in the next story.

Superego: That theme is?

Me: Might language is preventing modes of awareness that actually allow us to perceive or know the world in a different way? Might language somehow be problematic in finding multiple ways of experiencing the world?

Side Track Five: Alternative Consciousness

But I want to claim something more for these metaphorical moments, having to do with their energy, with the sheer muscle required to speak a lie in the interests of truth, and leap between two distant regions of experience. One metaphor for the excitement of metaphors is to say they are entry points where wilderness re-invades language, the place where words put their authority at risk, implicitly confessing their inadequacy to the task of representing the world. Their very excess points to a world beyond language, even while it cuts a fancy linguistic figure. They are our route back to that live, still nameless birdlet who is checking out the half-recumbent drinkers on the porch, or flit away from taking an experimental sip of my Sauvignon Blanc. (McKay, 2001)

I take children on hikes. We walk the Saskatoon native grasslands together. I point out birds and tracks and tell them stories. I make them guess who might eat the “winterfat” and why. We jump up and down by the old beaver lodge where the wild raspberries grow and feel the springiness of the ground beneath our feet. We put the sunscreen of the local aspen trees on our faces and talk about the giant ice cubes the glaciers left behind when they receded. On these hikes I have noticed that the one thing that turns off a child’s sense of the wonder of nature is to tell a child a name.

I have noticed this tendency in eager birders, who are satisfied only upon seeing a bird once the appropriate description has been found and a name applied to a bird. What is commonplace, while fascinating in its behaviours, is frequently dismissed. To see only one or two species, especially of a common bird like the magpie, or crow, on a birding foray is a disappointment, not because of what the lack of diversity might indicate about the health of a given environment, but because of not seeing more birds of different names. Often, for such birders, a birding expedition consists of looking and naming.

We seem to need almost compulsively to name. The little people in my life have all gone through their phases, pointing incessantly at objects and insisting that I tell them what the thing is called. “What’s that?” they ask and I bring forth a plethora of nouns to correspond to their world. McKay:

But naming has its indisputable satisfactions. To find bushtits later in the bird guide, to fit them “I knew it” into the titmouse family along with chickadees of every stripe and cap: this is one of the pleasures of system to which us big brains are addicted. We aren’t (certainly I wasn’t) willing to remain on the phenomenological edge for very long before that itch to identify things, to place them taxonomically, kicks in. (pp. 60-61)

Perhaps it is that pesky left hemisphere that Henninger speaks about, out of control again, dominating the poor little right hemisphere. But naming comes with something else, for a name can carry with it concept, a categorization, that brings with it a rich semantic array of understanding. McKay sees a bushtit and knows more:

. . .for instance that southwestern B. C. is the northern extremity of their range; that they are songless (meaning, really, that their twittering recitative covers the function of territory and breeding managed by a separate song in other species); and that they weave elaborate nests like hairy gourds—larger and more intricate than a northern oriole’s, complete with a side entrance and roof. (p. 60)

A name summons. But it only summons if there is a conceptual frame to go with the name. I think “harrier” and I immediately see its rocking flight feet above a field, and I know should I see such a bird in flight that this particular harrier is hunting for small prey. I see a bird moving upwards in circles high above the ground and I know I am dealing with a soaring bird, probably a hawk, who is currently taking advantage of columns of hot air that rise from the ground on a hot day. I don’t necessarily need a name to get into the knowing, but a name definitely helps. It is a form of shorthand for my ever increasing realm of knowledge about the world.

But knowing requires time. It is easy for me to name each object at which the small people point. But only time and experience in this world will provide the small people with the rich conceptual schema that fills a word with meaning. Words are metaphors at the very basic level. They stand for the thing; reduce it to a code; simplify it and in so doing fit it into vast array of categories we impose on the world. In so doing they bring their sticky concepts with them. Yet words, ultimately, cannot describe the basic stickiness of things, in themselves, to their context. They tend to point us to our conceptual connections whilst they focus the attention, not on the thing itself, not on its context, but on one’s idea of the thing. How then to see the whole?

Way back in the dirty thirties, whilst the prairies were blowing away, a fellow named Wertheimer²⁵ was asking questions about perception. He was convinced that the “elementalists,” a school of psychology that had emerged in the previous century, had it wrong. The elementalists were essentially reductionists. For them, perception was made up of parts. Today I see a tree, a road, some grass. The total of these individually perceived elements is what I perceive. That is all. Yet really, I perceive a fluid whole. I experience a unity of my perceptions, sound seems to come out of my dog’s mouth even though it comes

²⁵ Wertheimer and his troop were, of course, not doing their thinking in isolation. Their work arose as systems thinking began to be explored in other domains. As discussed by Capra (1996), in *The Web of Life*, (see chapter two), systems thinking was also exploring emergent properties of wholes and was leading to ecological theories of whole as emergent and developing out of parts, a popular one being the Gaia hypothesis of Lovelock and Margulis (Capra, 1996, pp. 100-110).

in through my ears and the sight of my dog comes in through my eyes. I do not experience the isolation or fragmentation of the pieces; I experience things as a fluid whole.²⁶

For Wertheimer, however, perception presents a total that is not equal to the sum of its parts, but is somehow more than the sum.

What was important was not the mosaic [part + part = whole] but a dynamic field in which the parts are interacting through the receptive process. Perception shows a totality, a whole, a configuration, an articulated structure and it's the task of the psyche to account for it, not by explaining it away, but by understanding its characteristics as a structure itself. (Watson, 1963, p. 409)

Another way of saying this is that the whole is irreducible to the parts. The whole has characteristics that are not the result of parts individually, but is dependent upon the interaction of the parts in very specific ways. Perception is always in terms of the total pattern. For Wertheimer and his followers, the whole precedes the parts. Whilst this may be an obvious point to those schooled in ecology and emergent conceptualizations of life forms, this relationship between the parts and the whole flips the elementalist/ reductionists conceptualization on its head.²⁷ The whole, for the Gestaltists, is primary, not the parts. Thus, understanding the whole must precede the parts.²⁸

Here is where the problem of language plays in, for language, at least Western language, has a tendency to impose an emphasis on the parts as opposed to the whole. Indeed, there wouldn't be much to say if we couldn't speak of the parts. We'd have a word like "one," and that would be it. The parts of a system are what are labelled and developed conceptually. As Lakoff and Johnson point out, it is within our nature to categorize; to interpret the world according to categories that we impose.

²⁶ There are those who do experience the world in isolated fragments. Take, for example, the woman who sees the world as a series of still frame pictures. The continuity of experience we take so for granted, she has to assume (Holt, 2003, p. 35).

²⁷ The Cartesian clockwork universe posits that one can understand the whole by understanding the parts. This analytic look at the way the physical world is put together is challenged by a number of disciplines including ecology, systems theory and complexity theory. Emergent conceptualizations posit that the whole cannot be understood by merely looking at the parts. Smash up a clock and you can put the parts together again. Smash up a heart and there is nothing but mush. For a more in depth look at the new look at interrelationships between parts and the whole, see Capra's (1996) *The Web of Life*.

²⁸ Within Gestalt theory, one can find echoes of indigenous thought as it relates to ecology, especially as it relates to the conflict between the aboriginal way of viewing the land, and the western scientific tendency to isolate and quantify individual variables in an attempt to understand the whole. Kawagly and Bernhardt describe the differences between indigenous and Western worldviews in their article entitled "Education Indigenous to Place." Here the indigenous view of the universe as a "holistic integrative system with a unifying life force" is contrasted with the western view of the universe as "compartmentalized in dualistic forms and reduced to progressively smaller conceptual parts" (1999, p. 120).

Walking the grasslands with grade two students, I discovered that children who will engage instantly with the environment are frequently 'shut down' with the naming of a thing. Whilst fascinated by a discovery of a nest on the ground or a spider building a web, they will ask endless questions about who and what and how, but name the creature/thing in question and interest quickly wanes. In retrospect, it is almost like watching the death of wonder. There is a fascination that goes with the nameless. Categorization, the labelling which turns the wondrous into a member of a unitable category serves to dim the fluid connection that some of these kids have with their environs.

The same phenomenon appears with the birder intent on adding another name to the list. I have driven for hours in the National Grasslands of the province, so that those who had not could see the 'chestnut-collared longspur,' a rather elusive species. The viewing, itself, took less than five minutes. It was long enough for all to see that indeed the markings did match those in the books and, thus, all could check off 'chestnut collared longspur' on their lists.

In *Art as Experience*, Dewey distinguishes between perceiving and recognition:

In recognition we fall back, as upon a stereotype, upon some previously formed scheme. Some detail or arrangement of details serves as cue for bare identification. It suffices in recognition to apply this bare outline as a stencil to the present object. . . . Bare recognition is satisfied when a proper tag or label is attached, "proper" signifying one that serves a purpose outside of recognition. (1934, p. 52)

Recognition, thus, turns us inward, away from the thing itself, away from the bird in the sky, and towards what we know of what we think we recognize. "Identification nods and passes on. Or it defines a passing moment in isolation, it marks a dead spot in experience that is merely filled in" (p.24). Perceiving goes beyond recognition, immersing the observer in the experience of the moment. It "requires sustained attention to the qualities of an object or situation; and is exploratory in nature" (Eisner, 1988, p. 17). Perceiving requires that we move beyond recognition, to explore our world without recourse to the labels and categories that shape our perception.

Deikman has theorized two alternate modes of being (1971/1978; Deikman, 1996). The first, instrumental consciousness, is a mode of action and manipulation of the environment, characterized by language and science, featuring focal attention, sharp perceptual and cognitive boundaries, logical thought, and reasoning. The other mode, receptive consciousness, is the mode for getting to know the environment characterized by spatial and non-verbal knowledge.

Language, as Deikman suggests, has the capacity and indeed the tendency to break the whole into parts, the isolation of which results in the extreme pursuit of the object decontextualized from its space.²⁹ Through language we discriminate, analyze, and divide up the world into pieces or objects which can then be grasped and acted upon Deikman (1971/1978, p. 70). To get to know the whole, as the gestaltists recommend, requires an immersion in the whole and a willingness to turn off the words or at least the attitude that separates into objective and separate categories, what is a totality first. Presumably, to get to know the whole, one might have to give up on the task of chasing down a bird and simply pay attention to the surrounds. Whilst we spent ‘hours’ finding and identifying a longspur, the sun rose in the sky and the whole in which that particular longspur was immersed came into its daily life. No one wrote anything down about the whole.

I read Deikman alongside a book on mindfulness by a Buddhist monk (Hanh, 1975). I began to ask what might happen were I to turn off the words that run in an incessant dialogue in my head, or at least what might happen if I made the attempt. Having spent my entire remembered life with this dialogue, I wondered if such a turning off were even possible. Today, I went for a walk on the riverbank. I was immersed in one of those “I shall never complete this thesis” sorts of depressions. Midway through an aspen grove, I reminded myself that there is no good in reading about mindfulness if one isn’t willing to give it a try. So, I took a breath in and said, “I am aware of being here,” or some such thing. The change in the quality of my perception was instantaneous. I am not sure what happened, though I recall a lift in my mood, a change in the quality of light and a sudden clarity to my vision. Birds started to sing, leaves trembled. It was only after, as I walked on, that I could identify at all what had happened. Yet, this was not all that had changed. Could it be that with my own shift in spirit, the whole had shifted also?³⁰

Later, I spotted ducks taking off in flight from the river’s edge. As I watched them lift into the air I experienced the oddest sensation, and struggled not to identify it. For the briefest moment, there was no internal dialogue. No dialogue, until, of course, barely able to contain myself I had to put it into words. “I’m not talking to myself,” said I. To which I responded, “Oh, yes you are.” Words flooded back. Since then, I have discovered that I can

²⁹ Whitehead might concur, for language often presents the “mere matter of fact.” The problem however, is not language itself, but our attitude towards it. If we fail to remember that the matter of fact is an abstraction, then we commit the fallacy of misplaced concreteness.

³⁰ My question actually has two questions loaded into it. The first is perhaps a question of the obvious: Being part of the whole, does not a shift in me result then in a shift in the whole? The second is perhaps less obvious, and certainly more contentious: Does a shift in my mood shift more than just me? Does my mood actually lighten the day?

“still” the words briefly and when I do my senses are louder and my perception of time, which seems to me to be language laden, also shifts. Intriguingly, Deikman proposes that each mode of consciousness has a characteristic attitude toward time. The instrumental mode, not surprisingly is concerned with past and future. There is a need to present a causal framework that identifies sequence in events if one is to manipulate one’s environment successfully. The receptive mode, on the other hand, focuses on the present.

Could it be that Deikman’s receptive mode and Wertheimer’s gestalt of the primary whole correlate?

My friend the fishing guide rarely spoke. I have no clue what his experience of the world is like. My query is simple. What is it like to turn the words off and if one does get them off, can one experience the world in a way free of concepts, or at least with a dramatically reduced number of concepts that shape and analyze the world for us in a pre-packaged way? I don’t wish to suggest that the concept is the word, only that each word carries a pre-packaged concept that one has already acquired. Words, I think, tend to lighten our conscious load. How much information can one deal with consciously anyway? Words, I think, allow a simplification of the information with which I am dealing. I relegate all the information into words to compact things. Such simplification would allow me to be more aware of other things, as I have dealt with and identified something else. We keep words in our consciousness, and not necessarily the full concept that the word describes. Yet, the word is the access point to the concept, acting as the source for, as McKay, the “indisputable satisfactions” that come with knowing a name.

I guess, what I really wonder is whether my friend the fishing guide’s thoughts could be as silent as his presence in the external world, and if this silence is or was the case, what was he doing that enabled him to find fish so effectively? Had he learned to fish with lots of conscious attention, and did that learning become automatic for him, so that he was no longer conscious of it? Perhaps, most importantly for me, was he conscious of what he was doing to find fish, without the use of an internal dialogue in his head?

Superego: Right, I’ll have a summary please, one that tells me about this story in particular, and then one that sums up the whole chapter.

Me: How about one that puts this story in the context of the whole chapter?

Superego: Fine.

Me: I’ve given you a progression of five stories. First, I told a story about my neighbour and her dolls in order to introduce the emotional commitment of many people in the

Western world to the conceptualization of the Self as the subjective experience of the phenomenal world. I am this conscious Self. Next, I told you of blindsight, to bring forth a discussion of the possibility of being informationally sensitive, yet experientially unaware. I told this story primarily to point out the shifting boundary between consciousness and the unconscious. I also wanted to point to the discomfort many have upon learning about blindsight. When I close my eyes, I cannot count on visual information to guide me through a room. I am both experientially and informationally unaware. Yet informational awareness does not seem to require conscious awareness. The boundary between consciousness and the unconscious continues to blur.

The third story I told was of Polanyi's tacit knowing. If Polanyi is correct about the ability to act consciously based on information available to the unconscious alone, then the strange case of blindsight, might not be so strange after all. It is in this story that I explicitly mention the body, rather than the unconscious. What aspect of the body is the unconscious? Where does my body end and my unconscious begin? Perhaps my unconscious is simply neurons doing their thing, in which case the boundary between consciousness and the unconscious is really the boundary between consciousness and body. As I think about everything that my body seems to know as compared to what my conscious mind knows then it appears to me that my body is smarter than my conscious Self.

Examining my fourth story, I discover the strange case of multiple consciousnesses existing in epileptics who have had their corpus callosum severed. There is a suggestion on the part of one researcher that multiple consciousnesses might exist in all of us, one of which is verbal, and others that are most probably not. This story is almost the opposite of the second and third stories in that it presents not the possibility of not having any awareness of subjective experience, but having multiple forms of awareness. It strikes me that one of reasons why this story is so powerful for me is that I have a conception of experiencing Selves existing through time. A Self that remains unable to express itself must continue through time. But even that assumption about Self seems to be in need of challenging. What if the stories of multiple selves appearing are really stories of transient selves, selves that appear suddenly when something needs to be expressed and then disappear? What if the seemingly continual nature of a Self enduring through time is also an illusion? The story of the multiple mes also serves to introduce the question of the role of language, pointing out the possibility that there might be ways of knowing the world that are language-less.

The final story begins where the fourth story ends. How does language shape what is actually perceived. Deikman suggests that there are ways of knowing the world that are

more about reception than about manipulation. The fluid whole of experience remains undivided into categories. When I contemplate this story, I become aware that I am part of that fluid whole. Where do I end and the rest of the world begin? Does the boundary I assume between my body and the rest of the world actually correspond with what is in the world? What might I perceive differently if I could turn off language? I have begun to think of that continuous running narrative that seems to be part of my conscious experience as one of the key aspects of my conceptualization of Self, the Self that experiences.

Superego: So, what do you think the point of the chapter has been?

Me: This entire chapter has been about the conceptual boundaries placed around ideas about the Self. What is the boundary between the conscious stream of experience associated with the sense of Self and the unconscious? What is the boundary between the Self and the body? What about the boundary between different ways of knowing the world, in receptive or manipulative mode?

Superego: Why do you feel asking questions about those boundaries is important?

Me: I think that the characterization of the Self as “this conscious experiencing Self” is problematic. I think that all the boundaries that help demarcate where one concept ends and another begins are merely abstractions.

Superego: Why do you talk about the boundaries around concepts and not the boundaries around things?

Me: Because I come from a tradition that says that the concepts that people use are not the things themselves. At best, all we can have is a concept. Hence, I can’t talk about the boundaries that may or may not be present in the “real” world; I can only talk about the boundaries that demarcate the concept. Ironically, an implication of my questioning about the way Self is constructed as inside the body is the possibility that concepts actually do, to some measure, correspond with reality at least some of the time.

Superego: So what?

Me: Concepts, especially ones that isolate the Self as somehow held in the body and thus capable of being deceived by the body about the world “out there” are assumed to correspond to reality. Each of us has concepts that help us understand the world. However, conceiving definitive relationships between those concepts, and assuming those relationships and concepts correspond to the world results in real problems when it comes to thinking about who each of us is in this world.

Superego: What problems?

Me: Self gets trapped inside the body. The body is not considered an aspect of the Self. It becomes that which deceives the conscious Self. Descartes couldn't trust his senses. His radical scepticism refused to allow all phenomenal content that was about an exterior world. His Self could be deceived by his body because his Self was somehow separate. Ever since Descartes' construction of the classical problem of how mind³¹ and body interact, people have been trying to stuff the two back together again. The response to the crisis in the conceptualization of mind and body has been to either try to make the mind equal to the body, and thus posing this conscious experiencing self as a quirk not required for existence,³² or remain dualist in that the mind and body are two separate entities. I am not prepared to dismiss my conscious Self as unimportant.

Superego: Why not?

Me: Because consciousness is a fundamental aspect of my being in this world, consciousness is not easy to dismiss. People with blindsight still require prompting to act when an object is placed in the area in which they experience only informational sensitivity. Throw a ball at their heads without a prompt and the ball hits their head. Throw a ball at me and the ball might hit me, but not because I didn't try to get away. It hits me because I see it, panic and forget to move.

Superego: So how do you feel about the idea of the mind being separate from the body?

Me: I'll acknowledge that mind and body may be different, but conceptualizing them as separate is what I find problematic.

Superego: But wouldn't they have to be separate if they are two different types of things?

Me: Separate is a word drawn from the physical realm. It is a word that indicates something about the location of entities. Separate is not a word you can use if mind is not physical. That is one of my key points. The boundaries that are assumed to demarcate Self as somehow isolated within a body are merely conceptual boundaries. The result of imposing problematic boundaries around the Self is, I think, an increasing sense of what I call the "me in here, you out there" problem. Selves become disconnected by their

³¹ Descartes separated mind and body. I speak about conscious experiencing selves in the same sense that Descartes spoke of mind. I do so because mind was originally thought to be where thinking took place. Now that there is an understanding of the role of the unconscious in thinking, the definition of mind has become a bit muddled. Because the discussion of how consciousness relates to the body is framed in terms of the mind/body distinction, I shall use the term mind to refer to the conscious experiencing self, for the remainder of the chapter.

³² This is the classic response of the eliminative reductionist position in the mind/body debate. For more on their position see either Cooney (2000), Velmans (2000) or Hunt (1995), each of whom offer survey of philosophical positions regarding the mind/body debate..

physicality. I'll stop there because I am hinting again at what I will speak more directly to in the final chapter.

Superego: So in summary, what is this chapter about and how does it relate to what comes next?

Me: This chapter asks again about those relationships between concepts and challenges the conceptualization of Self as merely this conscious experiencing Self. The next chapter is about the boundary between this body and everything else. Both chapters reflect different tracks in my journey. My pursuit of questions about Self, resulting from readings in the philosophy of mind, occurred at the same time as did everything that I tell you about in chapter six. The individual tracks, which seemed for so long to merely be disparate areas of interest eventually coalesced into a conviction about language. Thus, in my final chapter I will return to the conceptualization of Self and ask how language might impede knowledge of the deep interconnection of each entity to all other entities.

CHAPTER SIX: SELF AND OTHER, THE SECOND CONCENTRIC RING

When Paradigms Collide

Everything would have been just fine
If only I'd stayed
In the comfy world
Of
Just
One
Paradigm.

But no,
Oh no,
I just had to cross over
Had to ask questions
That really
No one needed to ask.

It is easier,
I think,
To live in one set of abstractions
Completely,

Rather than try to leap
From one
Abstraction

To

Another

Abstraction.

Whitehead says that each abstraction is an act of penetration, a movement into understanding of a world (1938, p. 60). But such acts of penetration do two things. They remove us from “what is” by imposing a layer of abstraction, and, because our thoughts are, themselves, aspects of “what is,” our acts of penetration, our multiple abstractions, dramatically reshape what is.

Like the skin of a balloon, stretched at a point in the act of penetration—the finger forcing the skin to stretch, when the finger is removed, the skin seems to return to its original position. Yet, the balloon, itself, is altered forever.

Ontology

Wednesday, a sunny day at the lake

Yesterday, as I was talking with my friend, I tried to explain the thesis to her. She looked at me quizzically and said something along the lines that it was very interesting but it was not at all what she thought I was writing about. She thought I was writing about the process of thinking. I said her misconception was perfectly understandable. I had been telling people the thesis was about the role of the unconscious, whatever that is, in thinking for the last three years. However, I came to realize that I was investigating more than the role of the unconscious in thought; I was investigating the conceptual boundaries that get imposed. Somewhere along the line I had started asking if my experiences, which I wrote about earlier in this thesis, might be explained not by reference to the unconscious, but through a completely different paradigm. What if it wasn't my unconscious at work at all? What if I was connected to something that was bigger than me, more creative than me? Suddenly I was asking questions about the nature of reality, not the nature of the unconscious.

If I were to follow one of the key tenets of the philosophical paradigm to which I have grown quite accustomed, Ockam's Razor³³ (or the KISS principle - Keep It Simple Stupid); the explanations offered by the cognitive unconscious for my set of experiences were sufficient. Yet, I began to pursue other paradigms. I wanted to read about conceptions of reality that had little to do with the materialist paradigm which shapes the discourse of cognitive science. Even though I had gone a substantial way in my journey toward this thesis, at the point of the conversation with my friend, I still had no idea that I was not looking for an explanation for my experiences. My conviction, that everything is connected, coloured everything I read; yet, I had no idea that it was the assumptions about the disconnection between entities that I was actually pursuing. I might have been completely deluded about what my motivation was, nevertheless I began to read about mysticism and religion and alternative worldviews.

It was because of my curiosity about alternative ways of conceptualizing the nature of reality that I read a current translation of the *I Ching*, an ancient method of divination. I made the assumption that those who believe in the *I Ching's* power do so because of a commitment to the power they perceive associated with the *Tao*, or the *Way*. I was wrong.

³³ William of Ockham (1285-1345) was a medieval scholar. He stated that "entities should not be multiplied unnecessarily" (Wudka, 1998) which is often interpreted as the KISS principle.

Reading the opening chapter of the book, I discovered not the discussion of the Tao I expected. Instead I found that what was once interpreted as divination is now understood to be a route to the unconscious:

Oracles and divination are not sorcery. They are an inner process that can show what is at work in your unconscious. The ancient world called this unconscious the world of the spirits. It is like the ocean of images you sometimes see in your dreams, where you are 'unconsciously' connected to other people and things. (Karcher, 1997, p. 4)

“How intriguing,” I thought, “now, the world of the spirits has become the world of the unconscious.” It really isn’t acceptable to talk of spirits these days. Instead, everything is inside of my unconscious mind. Yet, in a twist I find quite fascinating, whilst spirits are dismissed as my unconscious, almost surreptitiously, the connection to other people and things sneaks in. I suspect that Karcher did not mean the unconscious the same way the cognitive scientists did. For Karcher I suspect the use of the term unconscious, a word that has gained a great deal of credibility in the realm of academia of late, is not accidental. The unconscious can replace the less credible phrase “world of spirits” without actually giving up too much of the key point of the *I Ching*, the connection to other people and things.

My suspicion is that Karcher reformulated the *I Ching* in terms of the unconscious in order to make the *I Ching* seem more reasonable to those who hold a Western worldview. Asking questions about the nature of reality doesn’t seem like a popular venture these days. Physicists seem to do it, but not many other people. Even those I suspect might be asking the questions, like people involved in religious studies, don’t seem to be doing so. But there are alternatives to the basic model that is assumed by most everyone I know today. There are worldviews that offer the possibility of deep interconnection between entities. There are worldviews in which the accustomed dualities and paradoxes of the inner and the outer; mind and body; world and constructed representation of world; the physical and spiritual, simply fade away.

What is real? Is there a world that is real? Is what I experience of something real? Or is my experience mediated in such a way that I merely get a representation of the real? When I pick up a book on the phenomenology of mysticism, an academically appropriate discussion (Twiss & Conser, 1992), I can find nowhere in it any discussion of whether what mystics might claim about the world is actually true. Instead, I find a meta-discussion, a look at the commonalities of mystical experiences rigorously researched and then interpreted within a framework influenced by the assumption inherent in the modernist paradigm that there are no spirits, and there is no access to the external world other than

through the senses. Thus, a story of mysticism, which is essentially about the connection of the Self with the Whole, cannot indicate anything actually about “connection.” Instead mysticism is interpreted as merely indicative of the mystic’s internal state of mind. Even Deikman (1966/1978, 1971/1978, 1996), the psychiatrist who gives a positive slant to the mystical experience,³⁴ characterizes it, ultimately, like Karcher’s take on the *I Ching*, as a state fundamentally internally derived:

The mystic vision is one of unity, and modern physics lends some support to this perception when it asserts that the world and its living forms are variations of the same elements. However, there is no evidence that separateness and differences are illusions (as affirmed by Vedanta) or God or a transcendent reality exists (as affirmed by Western religions). The available scientific evidence tends to support the view that the mystic experience is one of internal perception, an experience that can be ecstatic, profound, or therapeutic for purely internal reasons. (1966/1978p. 233)

D’Aquili and Newberg (1999) studied brain function as it relates to meditative states. The researchers looked at SPECT³⁵ scans of the brains of subjects in the process of meditating who were reporting experiences of oneness with the universe. The results show, in their opinion, that indeed the brain is hardwired for an experience of God (1999). Yet, I could find no statement about the veracity of the experience of the meditators.³⁶ The results

³⁴ Deikman states most explanations of the mystical experience within “psychological and psychoanalytic literature have been general statements emphasizing a regression to the early infant-mother symbiotic relationship” (1966/1978, p. 219). I’m not really sure what that means, but it really doesn’t sound all that healthy.

³⁵ SPECT: Single Photon Emission computed Tomography The images produced from SPECT scans are indicative of organ function rather than anatomy (MIRG, n.d.).

³⁶ To be fair, D’aquili and Newberg (1999) actually offer an editorial comment at the end of their book that states:

If we grant ontological priority to external reality, and if we grant that the laws of science and, hence, neurophysiology and neuropsychology as sciences reflect a reasonably significant isomorphism with external reality, and if, furthermore, we consider the transcendent certainty of the reality of absolute unitary being among those who have experienced it, and, finally, if we consider the intense functional certainty that we all have of the reality of our everyday world made up of multiple discrete interacting beings, then we must conceive the brain as a machine that operates upon whatever it is that fundamental reality may be and produces at the very least two basic versions, both accompanied by profound subjective certainty of their objective reality. Thus, it seems that both God and our everyday world can be perceived by the brain and generated by the brain. At this level of analysis both statements are probably true. Whatever is anterior to the experience of God and the multiple contingent reality of everyday life is in principle unknowable, since that which in any way known must be a transformation wrought by the brain.

So, for them at least, there may be something that is experienced, but that something is unknowable.

indicate that a particular part of the brain appears to be inactive during these moments, in which the meditator claims to be experiencing 'oneness'. The answer whether or not the person is experiencing anything at all that is real (an actual connection to the cosmos) or whether it is all just a disabled brain state can only be provided by the paradigm of the questioner. The empiricist would be forced to state that there is no empirical proof of anything experienced that is real. One is reminded of the famous psychiatrist, Wilder Penfield, at the Montreal Neurological Institute, who opened the skulls of people and prodded various points of the brain, and asked what was experienced. They of course did not say they were experiencing the brain being poked. They stated instead that they experienced something like a smell, or a colour, or a memory (Goswami, 2001, p. 149). There was nothing there, of course, except a prod to the brain. So a meditator can turn off part of his or her brain, what on earth does that prove? The answer, of course, is nothing at all.

When I began this journey some years ago, I asked a fellow student what happens in a sweat lodge, and I knew by her wary eyes that I had asked something that I, as the white girl, have no right to ask. It was only when I asked if I might describe to her the way a character came upon me whilst I acted, by suddenly bursting forth from inside me, that she relaxed and smiled and said that yes that was it. What she knew came from inside her.

There is more, I know now, that happens at a sweat. But those are not my stories to tell. What I am concerned with is that those ways of knowing, whilst acknowledged as being valid and important cultural practices, are not considered really to be, what they just might be: ways of knowing not the self, but self-in world, grounded in an ontology we academics both fail to acknowledge and understand.

It is for this reason, I think, why I ask the question again. Why I risk saying things that seem utterly flakey even to me.

What I have discovered, as I open up this discourse within my small world, is the endless number of stories that cannot be explained by the traditional empirical understanding of the world. Information from the world comes into this conscious experiencing Self via my body. No information gets to me that is not physical, that cannot impinge on my senses. Whilst I am aware of the problem of anecdotal evidence, I am stunned frequently by the emergence of one of these stories from even my most 'scientifically' grounded friends. They are stories that, for me at least, cannot be explained by access to the world via the five senses, the cognitive unconscious, or any theory of epistemology based upon the representationalist theory of mind. Be they called visions,

extrasensory perception, moments of grace, be they about moments of intuitive connection between twins, or a between a parent and a child, be they moments of knowing of the death of a loved one, sensations of time travel, oneness, or a presence beside a dying man's bed, they rush out of mouths that have kept their stories silent.

I recall reading of Wonder-cabinets³⁷ of old and how they shaped the realm of doubt, especially scientific doubt. People would wander about Europe, in the days when my ancestors first heard stories of miraculous lands and birds and animals of such amazing design, and they had these curio cabinets filled with samples of the newly 'discovered' lands.

And, as is the want of all charlatans the world over, the temptation to fool the crowd was often too much for many of our trusty curio cabinet keepers. Thus, the cabinet might just as well have been filled with the miraculous inventions of the curio cabinet keeper, as opposed to say a beak, or a feather, or a skull of a tropical parrot.

There were those of my ancestors, and perhaps, of yours, who believed it all. How does one differentiate, after all, the miraculous from the previously unknown?

We humans are a gullible lot. Gullible, I think, in our need to believe in our gods, our miracles, our moments of connection to another power, that there is something more than this day to day slog through the dishes and work and the dishes again.

Perhaps it is wrong to view the unknown with such a gullible awe. Certainly, it leaves us prey to the disreputable, those who learned long ago that no one is to be trusted, and the trusting are an easy mark. Some of us buy our pieces of torn up fabric of the old preacher's tent, and peer with hungry eyes at this age's version of the wonder-cabinet, the carnival freak show, the television medical drama. It seems that many of us are drawn, even riveted by this yen for the miraculous. And so, as so often happens, there are those among us who join cults, sell their possessions, and devote themselves to the 'words' of a god.³⁸

My mother tells of training in a Catholic hospital where no one doubted the placement of a casket at a funeral according to how much the newly deceased was apparently able to pay to get up close to God.³⁹

³⁷ Wonder-cabinets were a phenomenon in the 17th and 18th century. See Weschler's (1995) *Mr. Wilson's Cabinet of Wonder*.

³⁸ I have often heard science referred to as the God of the 20th century. Perhaps it is so characterized because of the unbounded faith that many place in the potential for science to solve all our crises, whatever they crisis might be.

³⁹ A practice that has hopefully been long since cast off.

Perhaps science's greatest gift to a society has been the constant injunction to believe, as the positivist, that there is nothing more than what the senses, and the various instruments that extend them, can reveal.

Do not believe, it tells us. Look for verification first. And so, apparently, if the movies are to be believed, the church sends out investigators to look for evidence of the miraculous,⁴⁰ and magazines which pick apart such claims thrive. The paranormal is out; God is a matter of faith not evidence; and woe to the gullible for there is not much more than this world of technology ever grinding on. Write your story and find meaning in that.

Yet, it would appear that I, too, have need of my gods. Or perhaps it is as simple as my mother said, "Once it has happened to you, there is no going back..."

So, just for a little while, I wish to suspend the doubt that has shaped my existence. (I was, after all, a science teacher.) I want to embrace for the moment, the realm of possibility.

⁴⁰ The Catholic Church requires two miracles: the first for beatification, the second for canonization. These are investigated by the Catholic Church.(Catholic-pages.com, 2004).

They have tried to talk me out of it repeatedly and over many years and from both sides of the spectrum—scientists and mystics—but it will not take root. At times my mind—trained for years in the rigors of philosophy—is nearly convinced, won over by some argument whose validity I cannot help but grant at the moment. But after a while this leaks off again because it does not go deep enough, does not touch the core for me which stubbornly holds out for that. Sometimes, listening to my colleagues talking about philosophy in the measured and modest style which has become the official way of doing American philosophy—taking on small problems that lend themselves to solution—I realize that I am a maverick, for I can settle for nothing less than the whole. It is a feeling deep in my bones and blood. It has been there since my childhood and has accompanied me through all years of education at elite universities, where it stayed underground for the sake of prudence. But it only went into hiding. It is still there and has been in the background all along, the scale against which every particular truth I have met with is weighed. (1986, p. 1)

*Renee Weber
Dialogues with Scientists and Sages*

Parallel Tracks

Parallel Track One: Reading Plato, Plotinus, Heidegger, Lao Tzu, and Shear

I read Plato, Plotinus, Heidegger, and Shear the winter that things changed. I read them alongside the readings in philosophy of mind and consciousness studies that shaped the preceding chapter. I read these philosophers as I also read beginner books in quantum physics, and whilst trying to recover from an appendectomy. That was four years ago. It is not easy to separate the many strands of the complex braid of text and life that I was weaving that year. Each strand of the braid, be it philosophy of mind, quantum physics, or reading the philosophy of Plato, Plotinus, and Heidegger brought forth new questions and new ways of looking at the world. Everything I read shaped the prejudice that I brought to each ongoing moment of interaction. Everything I read that year was influenced by my new acquaintance with metaphor as a result of reading Lakoff and Johnson. I read about philosophy of mind and consciousness studies and queried the conceptual boundaries used to demarcate concepts associated with the Self. I read Plato, Plotinus and Heidegger and began to question not only the conceptual boundary that demarcated Self as distinct from Other but also the assumptions about how knowledge about other is obtained. I read quantum physics and began to question the ontological claims inherent in the classical mechanical model of reality. I discovered that each strand and the challenges that arose from my reading each framed answers to the question, “Who am I in this world?” in completely different ways.

Although I read Plato, Plotinus, and Heidegger because they had been assigned to me, I read them with the intensity I did because even then, I was already searching for ideas about connection and unity. My interpretation of what I read was shaped by Jonathan Shear’s, *The inner dimension: Philosophy and the experience of consciousness*, a book I stumbled upon in the library by accident. In it, Shear explores the occurrence of transcendental experiences throughout history, particularly as they are reported in the ancient texts of Plato. These experiences

share important properties, including, especially, reference to kinds of perception which do not appear restricted to or by the boundaries of space, time, and sensory qualities that define and differentiate all of our ordinary experience. That is, they all reportedly involve some kind of “seeing” which goes beyond our ordinary perception, or through it, into another mode or dimension. (1990, p. 4)

According to Shear, Plato was aware of these transcendental experiences. What is more, Plato, “described them in detail, and integrated them centrally into his theories of mind, knowledge and value” (p. 11). I was intrigued. I wanted to know where.

I was even more intrigued to read that, according to Shear, Plato had mentioned these transcendental experiences, or at least the method of obtaining them in the very book I had read of Plato’s: *Republic*. That method is the dialectic.

The dialectic as something other than what I learned it was? How could that be? Shear (1990) does say that his take on the process is dramatically different from the generally accepted position which is

the procedure of posing questions, generating answers, and reasoning to the existence and nature of the Forms. This question-and-answer process, often arriving at conclusions about the Forms, is found throughout Plato’s dialogues. In addition, there are passages in the dialogues that specifically associate the dialectic with such questions-and-answer methods. (p. 13)

So, while Shear concedes that Plato says that asking questions and coming up with answers is the process of the dialectic, Shear thinks that Plato’s account of the dialectic in the *Republic* indicates that the method is something radically different from the conventional account. Shear says:

The dialectic . . . in fact is so different from what we today would call “reasoning” . . . that he [Plato] describes it as

- (a) turning the mind in the opposite direction,
- (b) employing a different faculty,
- (c) having *different objects* (as different as solid objects are from shadows and reflections), and
- (d) producing a *different kind of knowledge*, knowledge so different that it is likened to the difference between *different states of consciousness*, waking and dreaming (pp. 13-14).

The dialectic is so different, that when asked by Glaucon to explain the dialectic, Socrates tells Glaucon that he won’t be able to follow further: “And, if I could, I would show you, no longer an image and symbol of my meaning but the truth as it appears to me. . .” (*Republic* 532e-533a (p. 764-765). For Shear, Socrates words to Glaucon indicate that the dialectic isn’t at all like the form of discursive reasoning that has occurred in the *Republic* prior to their conversation about the dialectic. Furthermore, the nature of the dialectic cannot be communicated by “an image or a symbol.” The dialectic is, therefore, non-discursive.

Later in the book, Shear compares Plato’s writings on transcendental experiences to those described in some Eastern traditions. Shear concludes:

It should thus by now be clear that Plato knew of transcendental experiences and procedures very similar to those described in both traditional Far Eastern meditation texts and contemporary Western meditation research, and that he associated these experiences intimately with his theory and account of Forms. It is also clear . . . that he held such procedures and experiences to be essential for generating kinds of knowledge and awareness necessary for genuine philosophical maturity.

What Shear does not conclude is that these transcendental experiences are of anything objectively real. In fact, he is very careful to not mention the possibility that transcendental experiences might actually be experiences of something “real.” Not that the experiences are not real in and of themselves, but in the same way that dreams seem to be about something exterior to me, and are really created by me. Instead, these experiences are characterized as good because they “are reported to be highly rewarding in themselves and to have strongly beneficial effects on the experiencer’s mental, emotional, and even physical functioning” (p. 1). The point, apparently to value the experience as an experience, and not ask the question that I inevitably ask: What if people are capable of experiencing these “experiences” because there is actually something to experience?

Yet, I want to know precisely that. What if there is something to the metaphysical claims? What if there is something to “The Good,” of which Plato speaks, or “The One,” that I find described in the writings of Plotinus? What if words appear at the tip of my pen precisely because somehow I am tapping into an elusive, ephemeral metaphysical unity? I read Plotinus, a neo-Platonist, and stumbled across his definition of the dialectic:

Dialectic, that is to say, has no knowledge of propositions--collections of words--but it knows the truth and, in that knowledge, knows what the schools call their propositions; it knows above all the operation of the Soul, and, by virtue of this knowing, it knows, too, what is affirmed and what is denied, whether propositions agree or differ,; all that is submitted to it, it attacks with the directness of sense-perception and it leaves petty precisions of process to what other science may care for such exercises [Plotinus, 1956 #1](Ennead 1.3.5).

There it is again, the reference to the dialectic as a way of knowing that is not only wordless, but is a way of knowing that leads to an understanding of truth. Oh dear, how politically incorrect of Plotinus.

It is possible that what Plotinus describes as the dialectic simply allows for reasoning to be unconscious. Yet, there is, I think, implicit in the term, at least as it is used by Plotinus, something that seems to imply something more, some connection with “The One,” the term used by Plotinus to describe the source of all things (Corrigan, in press, p. 20). What I want to know is if there is anything to the idea of “The One.” Does it correspond to something with an objective reality? Is it an experience generated by my

mind interacting with something, some unity; or is it an experience generated by my mind alone? Or, do I choose to not talk about what that some thing is that is experienced, and instead, talk about the merely talk about the experience of the experience?

In Heidegger's *Introduction to Metaphysics* I encountered the curious term "logos" discussed in a substantial way. I had been under the impression that "logos" meant "word." Heidegger writes that the original definition apparently had nothing to do with language (2000, p. 191). Heidegger offers another definition which he derived from Heraclites' use of the term. For Heraclites, logos meant "the originally gathering gatheredness that constantly holds sway in itself" (p. 135). This definition fascinates me. "Logos," no longer defined as word, but as a unity that embraces plurality (gathering it) at the same time being that gathering (gatheredness). It is something that is at once both subject and predicate, almost non-propositional. What might such a definition mean? Heidegger further characterizes "logos" as that to which human beings do not attend. "Heraclites wants to say: human beings do hear, and they hear words, but in this hearing they cannot 'hearken' to – that is, follow- what is not audible like words, not *talk* but *logos* . . . It says: you should not cling to words but instead apprehend *logos*" (p. 136).

What is "logos"? Might it be akin to the One? Are these terms, ("The Good," "The One," and "logos") and the concepts they entail just constructions that helped people make meaning of their worlds? Perhaps they were merely constructions that arise out of an idealist philosophy. Or the concepts actually correspond to something in this complicated universe in which each of us finds our self? I know that is a difficult question to answer; how does one know if their concepts correspond to anything at all?

Parallel Track Two: Reading Physics

I really did not expect that getting a master's degree in education would involve reading physics. Why I decided to do so had more to do with chance conversations than any deliberate attempt to understand the nature of the physical world. Yet, physics, specifically the physics of relativity and quantum physics, has shaken my foundations. My carefully constructed worldview, framed as it has been by years of unexamined assumptions about the nature of reality, had started to crumble. It is not the purpose of this thesis to teach beginner physics to anyone. However, I hope to give some insight into why reading physics alongside Plotinus and Plato, prompted me to ask questions about the nature of prayer. I hope that will make sense to my reader eventually. I shall try to explain.

It all began with an encounter at the gym. My friend, climbing endless stairs beside me, confessed, "I don't get light."

What? No one says such a thing. At least, no one as smart as her says such things. She has an honours degree in science. She reads science books for fun. Yet, there she was uttering the confession. "I don't get light." Beginner students in the grade eleven physics course are expected to investigate light, to "get" light. Why would she, a science teacher with a big brain, utter such heresy?

Who doesn't get light? It's electromagnetic radiation from the sun. It's as simple as that.

So, I went home. I read about light (Wolf, 1989, chapter 2 &3). About a paragraph into the book I was reading, I realized--I don't get light. I didn't get it then, and I don't get it now. The more I read about it, the less I understand it.

How am I supposed to make sense of waves of fields of influence that run perpendicular to each other through nothing? What do I do with the particle-like nature of these waves of influence, which although without mass, act like they have mass?

I'm supposed to understand light.

I'm supposed to accept that waves of nothing but influence can travel through a vacuum, a vacuum which, incidentally, curves around large objects?

I write of light and my stomach clenches. I am disturbed by physics. The more I read, the less I sleep.

There is a small section in the Saskatchewan Chemistry 20 curriculum that covers the history of the atom. Each time I taught the course, I taught my students about a fellow named Max Plank and his leaping electrons. For Plank, electrons exist in the lowest possible energy configuration. Add energy to an atom and the electrons will alter their

position, generally, moving outwards from the nucleus of the atom. Electrons will return to their “ground state”⁴¹ automatically and release the energy absorbed in the form of a photon. Electrons absorb and release energy in very discrete packets or amounts. Thus, there is no continuum of energy absorption. One cannot feed an electron any amount of energy and have all of it absorbed. Unless the amount of energy which is a multiple of the amount for a packet of energy, then there will always be a little bit left over, that the electrons around the atom cannot absorb.

I taught Plank and thought I understood him. I didn't. I think it was Plank that started me not sleeping at nights. You see, an implication of Plank's theory is that when an electron moves from one energy level to another it doesn't exactly move. Rather, the electron disappears from where it is and appears somewhere else (Wolf, 1989, p. 79). By analogy, an equivalent in the macro plane⁴² we exist within might be if I were to feed children a great deal of sugar and then suddenly they just disappeared from in front of my eyes and reappeared, say, on the roof of the school. No climbing required. Leaping electrons do not leap from level to level. They disappear and reappear.

Perhaps it is my rather large imagination that causes me to not sleep at night. You see, you and I are made of electrons, and the key process that drives the human ability to derive energy from sugar involves those very leaping electrons that disappear and reappear constantly (Wolf, p. 83).

I am unable to read books on physics in one go. I can only read them briefly, sporadically; I am uncomfortable with the discomfort they cause. I am unable to read them and not feel like my foundations are shaking.⁴³ I did not feel this way when I taught about Plank, but then again, I don't think I knew it was okay to not understand, to be amazed, shaken, and freaked out.

⁴¹ “Ground state” refers to the state that electrons are in at rest, prior to their excitation by energy.

⁴² The size range in which humans exist as compared to atoms is dramatically different. To differentiate between the realm of sizes we experience and the real size that an atom might experience the terms macro and micro are used.

⁴³ I mean this statement both literally and metaphorically. Frequently upon reading something from one of my many physics books, I would go to bed dizzy, shaky, and uneasy. At times, I could not sleep at night. I eventually banned myself from reading books on physics after six, which eased my sleeplessness, but not my pounding heart.

My metaphorical foundations were shaken more dramatically. I started to doubt the basics of a worldview that had served me well for close to forty years. I still don't know what to do with the understanding that something, even if it is a very tiny thing, can simply disappear in one spot and reappear in another. My worldview, grounded in “common sense” ideas of causality and space, does not easily survive an encounter with the any of the ideas I've encountered in quantum physics or Einstein's theory of relativity.

Einstein held that reality was local. Time and space are relative. The speed of light is constant. There is no cause and effect between two objects unless a message can travel between them at a speed no faster than the speed of light. Einstein did not like quantum physics. There was a non-stop feud between Einstein and Bohr, the champion of quantum physics in his day.⁴⁴ There was something too indeterminate about quantum physics for Einstein. Strict causality, a basic of the classical mechanical model⁴⁵ doesn't work for events in the quantum world. Events in quantum physics always have an element of unpredictability to them. For Einstein the explanations offered by the theorists of quantum physics were problematic. He was hoping for explanations for the happening of events in the microworld that would have more predictability to them. He firmly believed that God would not contravene the basic of determinism. Thus, he said God wouldn't play dice with the universe (Malin, 2001, p. 1).

I am not sure if quantum physics scared Einstein. It scares me. But then again, so does Einstein's theory of relativity. Here's a thought experiment for you. Throw a ball on the ground. The ball moves relative to the ground at a constant speed. Throw the same ball in an airplane at the same speed and the ball moves relative to the airplane at the same speed it traveled on the ground. But standing on the ground, that ball just whizzes by. That makes sense to me. Velocity is relative to the position of the observer. To calculate the speed of the ball in the airplane relative to the ground one simply adds the speed of the ball and the speed of the airplane. This is basic vector analysis, part of the scientific lexicon, I taught it in my physics 30 course.

Yet, vector analysis doesn't work for light. Shine a flashlight on the ground. The light travels at a speed of 3.8×10^8 m/sec. Shine the same flashlight on the airplane and it travels at the same speed as it did on the ground, regardless of where I am standing to measure it. Light is relative to nothing. Michelson and Morley were the first to experimentally show that the speed of light remains constant irrespective the perspective of the observer. Note the constancy of the speed of light regardless of the position of the observer is dramatically different from the speed of a ball which is relative to the position of the observer. To the observer sitting on their beach chair looking up at the sky as the plane flies by, however, the ball, if you could see it, would be speeding along at the speed of the

⁴⁴ For lucid discussions of the feud between Einstein and Bohr see Malin, Jungerman, or Wolf.

⁴⁵ The classical mechanical model of the universe is often referred to as the clockwork universe. All events have strict causes, and thus are considered to be thoroughly predictable with those who have all the information about those causes.

plane. That rather simple statement that light is the only thing for which the velocity remains constant regardless of the position of the observer dramatically reshapes how both distance and time might be conceptualized.⁴⁶ Throw in the fact that space can curve and I am a quivering mass.

Often, when I try to explain to people that space can curve, they look at me and say, of course it does. They are assuming, of course, that I mean that an object can curve in space. No, I say. It is not that objects curve in space; it is that the space curves. If you were in the space that is curved, you would experience everything as though you were in a space that is not curved. Should our planet suddenly travel through a gravitational wave, we would not suddenly go all wavy like creatures on a poorly tuned in television set. But should some observer see us from afar, we would all look bent.

Space, you see, curves around large objects in response to the gravitational field of those objects (Jungerman, 2000, p. 30). Gravity is yet another concept that seems to elude me. Gravity is another field of influence. There are apparently waves of gravity that just float through space, bending space, bending time (Jungerman, 2000, pp. 29, 37).

I have no idea what to do with waves of gravity, or light, or space that bends, or electrons that appear and disappear.

My beginner's guide to quantum physics begins with the discussion of the strange experiment known as the double-split experiment (Wolf, 1989). Direct a stream of particles toward a receiving screen. Each time a particle hits the screen it leaves a little spot. Now place between the source of the particles and the receptor, place another screen with two slits running parallel to each other. Close one of the slits and the particles that travel through the one remaining slit cover the entire receptor screen. The screen shows a

⁴⁶ Here's a very simplified version of why the constancy of distance and or time get challenged by the constancy of light speed. To both the observers, in the plane and on the ground, the velocity of the ball thrown is equal to the distance the ball travels divided by the time it travels. The time for both the observer on the ground and the observer in the plane may remain constant, but the distance traveled is dependent on what you measure the ball as relative to. On the plane, the distance the ball travels is measured in the plane, say 10 feet. On the ground, the ball may have travelled the 10 feet measured on the plane, but the observer also witnesses the plane whiz past. Thus, for the observer on the ground the distance covered is dramatically different. Thus, it makes sense that the velocity the ball is observed to be traveling at will be different for each observer. Mathematically, you could say that given $v = \Delta d / \Delta t$, then given a different Δd for each observer, v will have to be different, or $v_{\text{airplane}} \neq v_{\text{ground}}$ because $\Delta d_{\text{airplane}} \neq \Delta d_{\text{ground}}$. However, for light v is always constant. That means that $v_{\text{airplane}} = v_{\text{ground}}$, even when $\Delta d_{\text{airplane}} \neq \Delta d_{\text{ground}}$. In order for the velocity of light to remain constant then something about the other two variables in the equation must change. The change in space (Δd) or the change in time (Δt) must somehow be relative. The relativity of both time and space are direct implications of the constancy of the speed of light. For a more thorough analysis, see either Jungerman or Malin.

ubiquitous distribution of little dots, or hits. But open the second slit, and suddenly there are entire regions where the particles don't hit.

It doesn't make sense. Not if the particles are particles. Of course, the only way to interpret the result is to assume that the particles are not particles they're waves and the waves are interfering with each other and preventing certain parts of the receptor screen from being hit. Yet, they land like they are particles. Fire off particles one at a time so they couldn't interfere with each other if they were travelling as waves produce the same pattern on the screen. The authors tell me, and I am to believe them, am I not? That the particles don't actually exist between the source and the receptor screen, it's just waves of possibility shooting off at the screen (Goswami, 2001, p. 61; Malin, 2001, pp. 44-46; Wolf, 1989, p. 5-6). The wave packet collapses into a particle once it is observed by anything bigger than it.⁴⁷

I'm comfortable with that theory. Aren't you?

The idea that the act of observation serves to collapse a wave of possibility into an actuality at the point of observation raises the questions: Why that point? Whose observation? And, of course, if a tree falls in a forest with no human to hear it, is it actually there at all? How does one interpret collapsing waves of possibility at points of observation? Does that mean I am required to make something manifest? What does that mean? If I am required to make something manifest, how come I don't have a choice of what manifests itself, and for that matter, how does the particle that becomes manifest, choose from the wave of possibilities what it will become? Apparently, if I am to follow this line of reasoning, the particle chooses what it will become and becomes that thing only if something observes it.

Even more confusing for me is the matter of large scale quantum events. How does the micro world apply to the macro world, the one I live in each day? If I am created out of quantum events then what makes me manifest? Do I require an observer? Do my particles consistently exist in this strange state of manifest reality and non-manifest possibility?

The issue of what makes a wave packet collapse is known as the measurement problem in quantum physics. There is an array of theoretical possibilities to explain the collapse. Luckily, I do not have to believe in the need for the particle to choose in the collapse of the wave packet. Instead I can believe that at the point of measurement, *all*

⁴⁷ What is meant by observation is apparently open to interpretation. Some, like Wolf and Goswami see the act of observation a distinctly human event. Others see the act of observation more akin to what I would call presence. If another thing, slightly bigger than the thing in question is present, then that thing is the observer.

possibilities collapse creating multiple universes. So at each moment, with each measurement of each thing, multiple realities are made manifest in parallel universes. Don't you find this possibility much more feasible?

Back in Einstein's day, there was a big argument over whether quantum physics was an adequate theory to explain everything. Either quantum theory is complete, or, there are hidden variables, which scientists cannot account for, that really govern the world. Scientists, like Bohr, who were in favour of quantum theory, said that the theory was complete. (See Malin's discussion of the Bohr Einstein debate.) What you observe is what you get. If you look for a particle you get a particle; if you look for a wave you get a wave. There is no underlying reality beyond what is observed. Einstein just didn't buy it. So a series of elaborate thought experiments, now known as the EPR⁴⁸ experiments, were designed to prove that quantum theory was incomplete. The result of the thought experiments was the conclusion that if there are hidden variables then they are non-local. In other words, those variables would not function in space-time the way other variables do. Local interactions occur through the exchange of energy or signals between material objects (Goswami, 2001, p. 14). Non-local interactions, or influences, would take place between objects outside of space and time.

Finally, in 1982, French physicist Alain Aspect conducted a rather bizarre experiment using photons. The result showed that non-locality was indeed a reality. In effect, two photons that had once interacted with each other were shown to be correlated in their behaviour once separated. In other words, locality was violated (Aspect, 2000; Goswami, 2001, pp. 133-138; Jungerman, 2000, pp. 86-89; Malin, 2001, pp. 81-84).

Something non-local is going on.

Something outside of space and time.

That's a big deal.

At least for me.

Before reading about the physics of Einstein and quantum physics, my worldview was pretty simple. Space and time were constant. Space didn't bend; the things of the universe did. Things existed without being observed. Particles did not suddenly disappear in space only to suddenly appear somewhere else. Most importantly, the basic laws of causality I had come to depend upon were never violated. Now I discover that what I thought was a reasonable worldview of a particulate universe, might be problematic. To

⁴⁸ The EPR experiments were developed by Einstein, Boris Podolsky and Nathan Rosen (Malin, p. 63). Later the EPR experiments were refined by John Bell (Malin, p. 69).

answer that basic question “Who am I in this world?” now seems to require that I explore not only issues of Self, but issues of world. How I interact with everything I experience as external to me will surely depend not just upon me, but also, upon the nature of all that is “out there.”

Parallel Track Three: Life

“I have discovered that there is nothing like the fear of committing academic suicide to send one to one’s bed, instead of facing the evil notebook of academic thoughts”

me

This is the part I don’t want to tell you. It is the part I don’t want to write. It is what sends me to my bed, not in search of inspiration, but out of sheer avoidance. It helps, I think, to read Gardner’s work on great creative geniuses of our time (2001). It helps to discover that each of them had someone to hold their hands and to reassure them that indeed, they might not be understandable, but they certainly weren’t mad. But who am I kidding; I’m not Martha Graham, Einstein, or Ghandi. I might be mad.

Encouraging, but I am reminded by the rather insistent judge in my head, that one asks the question, “Am I mad?” because of the very real possibility that one just might be so. And consequently, until today, I have avoided this part. I’ve talked around it, pretended it wasn’t there. Perhaps, it is because the thought has lodged deep in my brain that this truly is an academic death knell, or a societal one, or simply a sign that I am becoming what I have always disparaged - a flake.

It helps, also, to read of Foucault’s take on society’s construction of madness, and Derrida’s theory on the construction of binaries of which one is privileged and the other not (Usatynaski, 2001). I am about to tell you of a religious experience. What I realize is that while the discussion of the subjective character of my religious experience is welcome into the discourse of academia, it is not entirely acceptable to speak of God, or the Good, or the One, or the Way, as though these might be possible things one might experience. The experiencer (subject) is in; the experienced (object) is out.

Yet, I am about to embark on a journey that is neither post-modern, nor even modern, but I think is as much about the decidedly unpopular idea of ‘revealed Truth’ as anything else. And I don’t mean revealed as in, let’s all go out and read the Bible, to find out what was revealed to someone else, but the sort of numinous mystic, Gnostic moment, that people go off on wild adventures to find.

And so I am writing this thesis about ontology in a world where I think the nature of reality is assumed. Epistemological theories swirl around me: constructivism, social constructivism, poststructuralism, each with their separate take on how knowledge is constructed, inside one’s head, or outside one’s head. Epistemology is in; ontology is out. Ontology is out because it smacks of foundationalism, and foundationalism is a modernist tendency. Postmodernism is in; modernism is out.

Educational postmodernists, I am told, by the editors of *Curriculum in the Postmodern Condition* are suspicious of transcendental arguments and viewpoints, suspicious of meta-narratives, reject canonical descriptions and final vocabularies, reject the idea that knowledge is accurate representation (though they don't say of what), reject that truth might correspond to reality (Alba, Gonzalez-Gaudiano, Lankshear, & Peters, 2000, p. 6).

God is a grand narrative. So is the idea that science finds things out about the world. God is not in; science is not in. Though they can be in if one deals with the experience of science and the experience of God because subjectivity is in, and objectivity is definitely out.

Experience is in; the experienced is out. Let's face it; I am not being very politically correct. What's more, my ideas get worse, for in my final chapter I fully intend to suggest that there is a problem with language. If there is one thing that is in, it is language and discourse. Apparently, the words I experience are the words I hear, and for language at least, there is the privileged position of the experienced word, the very experience of the sounding or sighting of the word, corresponding to the uttered or written word. I might not be able to know about anything else in this world, my knowledge may be limited, but words apparently get through unchanged.

Yet, is it not ontology that grounds epistemology? So, what assumed belief about the nature of reality, leads to such doubt of what it means to know something? What ontology would lead to the belief that truth does not correspond to reality? What ontology leads to the rejection of knowledge accurately representing a world? In other words, what must one assume to believe that it is impossible to know the world? I must believe that I have no access to the world except through language. The sign is in; the signified is out. I must believe that I am separate from the world.

I have been warned. Deikman warned me; as did D'aquili and Newberg.⁴⁹ So did Shear, who separated "experience" from the interpretation of the experience and the metaphysical systems in thought in which they were embedded (1990, p. 5). I am not to be asking questions about whether I actually experienced something "real." I can hear the psychiatrist say already, "Well I am sure it was real for you." Perhaps it all is really just a construction of my mind.

⁴⁹ See the discussion in the section entitled Ontology.

So, I am left with a story of an experience. Or at least I can pretend that this thesis is really just a story about my experience. After all, I am reminded even by Smith, a cognitivist from the section on the unconscious, that it is through language that we create meaning of what is really a confusing muddle of chaos (1990). Even the echoes of Lakoff and Johnson are here as they ferociously remind me that the world does not come pre-ordered. “There is no reason whatever to believe . . . that the world comes neatly carved up into categories or that the categories of our mind are the categories of the world” (Lakoff & Johnson, 1999, p. 22).

In *Acts of Meaning*, Jerome Bruner (1990) speaks of the way each of us comes to understand, or make meaning of our lives. For Bruner, the narrative, the story we tell, is the meaning maker. How I interpret my story is up to me. I might as well interpret what happened to me any number of ways. What is relevant, apparently, is not that I gave it *the* meaning, but that I give it *a* meaning. The meaning that I give my experiences will be, inevitably, at least in part, shaped by a cultural script, imposed both by the language in which I write and give meaning to them, and the cultural context (the presuppositions/assumptions which are inherent within the language I use) that ground the discourse of my culture. Does it really matter if my meaning corresponds to the world exterior to me? What matters is that I make sense of my experience. It would help, I suppose, to make sense of my experience in a way that aligns with the sense the rest of my discourse community would make of such an experience. It does not, after all, matter if my experience was of something “real.”

Oh dear

What happens when an academic steps away
From the 'objective' consideration/discussion
Of epistemology
And, more importantly,
the unpopular question of alternate ontologies
and moves into the personal attempt
to make/find meaning from experience of metaphysical constructs?
Is this narrative an attempt to legitimize
Or normalize
The 'abnormal'
In a world of socially constructed canonical norms
Of classically mechanical driven conceptions
Of a particulate
local
Non-real
World?

Am I just running away
From the hard stuff?

My year began with burping and a car whose clutch was rapidly going. I am not sure of a causal connection. I had been asked to care for a sickly dog over the Christmas break, and, so, I would put myself into my car, back it out of the drive and burp my way over to the sickly dog.

On the day of the incident, I parked the car on the road, not the driveway, (I had a sneaky suspicion that reverse was no longer an option), walked into the house, fed the dog, and phoned my mother, the nurse, to find out what an appendix attack felt like. From her descriptions it did not feel like burping; but, I phoned again later, to ask my father to take me to the hospital, for I was convinced my appendix was about to burst. What other reason could there be for the incessant burping that had plagued me?

At the first hospital, the triage nurse looked at me somewhat scornfully when I described my symptoms (burping) and told me to sit – there was a three-hour wait. Father, never one to wait easily, asked about and found another hospital with no filled waiting room, where this time, rather wisely, I told of a non-existent pain in my lower right abdomen and dropped the word ‘appendix’ conveniently. My self-diagnosis went over big, for immediately, I was whisked away to await word from the surgeon, who poked and prodded and said yes...and disappeared. Whereupon, I gave up all my effects including my glasses to a plastic bag and began my journey as an anonymous patient.

I remember little else, except the surreal journey down the unlit surgery hallway and my inability to see the anaesthesiologist as he muttered something about what would happen to me during the surgery. My father, sent to retrieve my car from in front of the sickly dog’s house, reported later, that indeed, the clutch that day had decided to retire from this world. And so, both my car and I entered the world of health care, dependant on the wiles of others for our survival.

It was an auspicious start to the new millennium. Jan 1: Have appendix removed. Apparently I was a difficult intubation. The appendix burst whilst still inside me. The surgeon, I found out later was one that a nurse ‘in the know,’ had refused to let operate on her daughter.

I got my glasses back three days after I woke up.

Why should I tell you such a story?

Every story must have a ground. This is my ground. It frames what happens next. It leaves open the possibility that all that happens next is merely a story of the recovery of my clutch on my sanity, and the gradual regaining of the power to act on my own behalf that I lost during my stay in the hospital.

Perhaps, it is because one encounters something else at the dissolution of a self, and in some way my identity felt like it was dissolving. Perhaps it was simply that the ability to have a continuous, ongoing narrative of who I am running in one's head is severely impaired by constant doses of painkillers. I was not my Self. I was some other being, drugged and in pain. Certainly, there was nothing powerful in the recovery. I was, I am told by my good friends, a particularly whiny patient. I was almost 40. I felt eight. I was dizzy when I could stand, in immense pain, high on Demerol and horridly allergic to my Band-Aids. I was not me.

Eventually they let me go home to the loving care of my mother and father (who had had my car fixed). It was against their advice that I decided to return to school.

So began my season of juxtapositions. I should have closed the books. I should have searched out more cognitivists and left it at that. I should never have stepped outside my comfortable paradigm. I should have stopped then. I would have written a nice 80 page thesis on the role of the unconscious in thinking. The hypothesis works to explain the way I write, the way I created characters, even the way the bounding immunologist came up with his ideas. I should have left it at that.

But, I was reading by then. I found that even after the dizzy spells subsided that I had about half an hour before anxiety spells would kick in, and I would be forced to put whatever I was reading down. I was reading Plato and Plotinus and trying to appreciate the notion of non-discursive reason. I was also reading Heidegger's *An Introduction to Metaphysics* and trying to wrap my head around *logos*, *dike*, and *phusis*. I was attempting to finish a philosophy of mind class by rereading a text. I was reading *Process and Reality* by Whitehead and trying to write papers for four courses. What's more, I was dealing with the remnants of surgery, an increased awareness of my body, and a heart that pounded so hard that it moved my bedclothes at night. For relaxation, and in this I seriously doubt my sanity, I was reading beginner guides to quantum physics.

I was told by a doctor, who I suspected to be a drug addict, that I was a stroke waiting to happen. I showed up repeatedly in hospital emergency rooms only to be patronizingly told I was stressed and hyperventilating. Finally I had a friendly specialist explain to me that I was experiencing the side effects of general anaesthesia. Patients frequently speak of an increased awareness of their bodies, as if everything is just packed a little tighter. Finally, I had an explanation for the pulse that I was constantly aware of in every part of my body which was literally shaking me as I tried to sleep.

I tried to sleep. I could not.

Somewhere toward the end of the term -- two events happened. In my memory it seems as though they are joined in time, though in truth they may have been separated by weeks. Nor do I remember which came first.

A paper appeared. I have no idea where it came from. It simply flooded out, complete, filled with characters and whimsy and in an utterly unexpected format. It was called "Waldo" and I wrote it for a philosophy of mind class. It was a story and I knew it would not be treated well by the professor. Yet, it is what emerged in response to the need for an essay for the class.

It was the best thing I had ever written to that point. It came at night whilst I was trying to sleep. I finally gave in to its insistent presence and kept a pad of paper or notebook next to my bed and let the darn thing appear as it would. It took over my life until it was done and finally, for the first time in months, I went to sleep for a long time.

While I have always claimed that papers come 'of a piece,' I also recognize that they come that way because I have prepared for them. I have thought out the connections and relations and then simply waited for the beginning, the thesis idea, and the shape given by what I have fed my brain. This time, "Waldo" came of his own accord. I have a memory of thinking that an assignment that came as a vignette ought to be answered with a story. But, what appeared to me was as foreign to me as it was for the poor philosophy professor that read it.

The second event was stranger. Here, I fear the insistent voice of my sanity queries whether I ought to tell you; perhaps it is not one of those things of which one speaks.

I was walking home from a dentist appointment in which I had been told I had no less than five cavities, (are you beginning to get the general tone of these first few months of my year?) when I thought to pray. Not that I would have called it prayer at the time. It was more like a residual whine. I was in a rather self-indulgent, pity poor me sort of mood and I thought (can one ever turn off that sort of dialogue?) that it was a perfect example of how utterly downtrodden and abused I was that everyone else should have some support from God, and I, of course, was on my own, poor sad, pathetic, little me. What better reason to be depressed, after all, than to be convinced I had been deserted by a God in whom I wasn't even sure I believed.

So I whined, "Where are you?"

As if out of nowhere, well actually, completely out of nowhere, I was flooded with a feeling, a felt meaning, not words, but if there were words they would have been "You're asking the wrong question."

Bam.

Now, I have no idea if these words make sense to you. Though the more I open the subject up these days, the more often I tell this story, the more I discover that there are more people who know exactly of what I speak than do not.

So, felt meaning⁵⁰ after felt meaning, it hit me.

“You’re asking the wrong question. It is not a question.”

Almost as suddenly I thought to voice “You are.” (No, not out loud, in my head. I may have been going mad but I was also quite aware that a woman talking to herself at a bus stop looks rather mad.)

It was immediate. The enveloping moment of something so intense that I am positive every part of my being registered it. Adrenaline coursed. My hair stood on end. I was, as another friend calls it who yearns for the experience, “wrapped in grace.”

I went home and cried for two days. I knew of nothing else to do in response to the enveloping feeling that came in wave after wave.

There, do you see why I was not sure I should share this part of the story? I share it because the question of ‘what is’ raises its head. I find that perhaps the multivariable hypothesis, whilst academically appropriate, and certainly within a paradigm that allows for the privileged post-modern discourse of plurality, relativism and, of course, the constructivist theory of knowledge, perhaps, this multivariable hypothesis, just doesn’t cut it.

Reading Plotinus, Plato, and Heidegger, reading quantum physics and Einstein’s theories of relativity, and feeling wrapped up in something greater than I have forced me to ask a different set of questions. They are not, as some might assume, questions about the existence of God. They are questions about the nature of reality. They are ontological questions.

The summer I spent in isolation at a cabin I sat down pondering questions of ontology, walked over to a bookshelf, picked up a book at random, opened it up and read Sam Shepard:

From time to time I've practiced Jack Kerouac's discovery of jazz-sketching with words. Following the exact same principles as a musician does when he's jamming.

⁵⁰ Usually ideas communicated are communicated through words. My friend says something and I understand. Though if pressed to examine how I understand it, I might say that I feel the meaning. This time the idea came without words I’ve assigned the feelings associated with the meaning I experienced words in order to communicate them in this thesis. The phrase felt meaning is used in the literature to describe experience of meaning that comes with understanding a word (Hunt, 1995, pp. 29-31).

After periods of this kind of practice, I begin to get the haunting sense that something in me writes but it's not necessarily me. At least it's not the 'me' that takes credit for it. This identical experience happened to me once when I was playing drums with The Holy Modal Rounders, and it scared the shit out of me. Peter Stampfel, the fiddle player, explained it as being visited by the Holy Ghost, which sounded reasonable enough at the time.

What I'm trying to get at here is that the real quest of a writer is to penetrate into another world. A world behind the form. The contradiction is that as soon as that world opens up, I tend to run the other way. It's scary because I can't answer to it from what I know. (1977/1995, pp. 858-859)

What if Sam is connected to something beyond himself? What might that mean?

How might we explain it? What if there is more to this existence that cannot be explained?

Just what is the Holy Ghost?

Who am I in this world? Who are you? How are we connected? Three years after I read Sam Shepard's account of a connection to something he could not explain, I discovered an article that responded to that question in a very odd way.

The Merging of the Tracks: Recipe for Controversy

In 2001, Leonard Leibovici, a professor in the Department of Medicine at Rabin Medical Center in Israel, published a study in the prestigious medical journal, *BMJ*.⁵¹ The study, entitled “Effects of remote, retroactive intercessory prayer on outcomes in patients with bloodstream infection: Randomized control trial,” examined the effects of praying for the sick years after they had been in the hospital. Leibovici randomized into two groups the names of all 3393 adult patients who had been hospitalized with bloodstream infection between 1990 and 1996. One group of names was given to someone who “said a short prayer for the well being and full recovery of the group as a whole” (pp. 1450). Following the intervention, the files of all patients were analyzed for three indicators: mortality, time of hospital stay and duration of fever. Statistically significant results were found for the latter two indicators ($p = 0.01$ and $p = 0.04$ respectively.) In other words, it would appear that praying for the sick after they’ve been sick, yields statistically significant results for length of hospital stay and the amount of time one has a fever. Leibovici concluded, “Remote, retroactive intercessory prayer said for a group is associated with a shorter stay in hospital and shorter duration of fever in patients with a bloodstream infection and should be considered for use in clinical practice” (p. 1450).⁵²

The article generated a flurry of responses. A sample of these responses include: the claim that the trial was not randomized; the claim that the paper proves the power of statistics not prayer; and the claim that a trial in which informed consent was not given is unethical. There was even a letter declaring that such a result should demoralize those who believe in God (Thornett et al., 2002).

⁵¹ *BMJ* was formally known as the British Medical Journal.

⁵² Intriguingly, this is not the only research on either the effects of prayer or the effects of retroactive intervention. For a look at the intriguing and promising results on the effects of prayer, check out the study on the effect of distant healing in patients dealing with AIDS (Sicher, Targ, Moore, & Smith, 1998). Patients treated with distant healing techniques were found to have “fewer AIDS defining illnesses. . . , lower illness severity. . . and required significantly fewer doctor visits. . . fewer hospitalizations. . . and fewer days of hospitalization” (p. 356).

For a look at the effect of retroactive intervention, the physicist Helmut Schmidt has investigated the possibility of retroactively influencing the production of a binary number sequence using psychics with psychokinetic powers. According to Schmidt, psychics can influence the production of numbers by a computer three months after the computer has actually created the number sequence. The number sequence was printed off and kept in sealed envelopes until after the psychics had concentrated on changing the numbers by staring at the computer monitor of the computer that had produced the sequence (reported in Goswami, 2001, pp. 204-205).

Ironically, the purpose of the study was not to study the effects of retroactive prayer, although that is what the author said the purpose was at the beginning of the paper. Rather, the author revealed in a later letter to the editor of BMJ, the purpose of the paper was to challenge researchers to ask the question: “ Would you believe in a study that looks methodologically correct but tests something that is completely out of people’s frame (or model) of the physical world—for example, retroactive intervention?” (author's reply in Thornett et al., 2002) Leibovici, it would appear, has little use for the studies that look at the power of prayer. In his words, “I believe that prayer is a real comfort and help to a believer. I do not believe it should be tested in controlled trials” (author's reply in Thornett et al., p. 1037).

I, however, am in a “what if?” frame of mind. My attention was grabbed not by the multiple critiques of the study that the article generated, but, rather, by the responses that also asked “What if?” What if this study is about something completely different than what Leibovici thought it was about? What if this study into retroactive prayer is really, about the nature of reality?

Brian Olshansky and Larry Dossey, in a short theoretical piece entitled “Retroactive prayer: a preposterous hypothesis?” also published in BMJ, ask the questions: “What if prayer actually influences the person to whom it is directed, no matter how far removed? What if prayer affects the past?” (2003, p. 1465). Unlike many of the respondents to Leibovici, Olshansky and Dossey do not approach the study of retroactive prayer as though it is meant to be proof of a god. Instead, they turn to physics. The questions they ask are not about the nature of a divine being that intervenes, but are, instead, about the nature of reality and our rather skimpy knowledge about the nature of how the universe might actually work:

We are nowhere near understanding laws pertaining to Leibovici’s experiment, including those governing space, time, intention, and consciousness. Physicists have profound doubts about how time operates. Consciousness is equally puzzling. Dismissing retroactive prayer, which involves both, seems premature (p. 1466).

Dossey and Olshansky point out that there are currently models of space-time that do permit bidirectional interactions between present and past. For these two researchers at least, Leibovici’s study on retroactive prayer has little to do with the possibility of God. Instead the study has everything to do with models about the nature of reality, of which the God hypothesis is but one possibility.

Dr. Dossey, a retired physician of internal medicine and the author of a collection of books on spirituality and science, draws on the ideas of the quantum physicist Nick Herbert to posit the possibility of a non-local mind. This non-local mind

is not confined in space and time to the brain and body, although it may work through the brain and body. And it is not confined to the present moment. Infinite, and by inference immortal, eternal, omnipresent—all of these are consequences of anything that is non-local, not just mind. As a result, if mind is non-local, there is one mind, or Universal mind, which is identical to what the West⁵³ has regarded as Soul. (Whitfill, 2002, pp. 13-15)

For Dossey, the non-local mind is a direct implication of the entangled photons I told you about from Aspect's experiment. The theory of non-locality has been the only way, thus far, that physicists have been able to explain the results of Aspect's experiments. The essential characterization of a non-local universe is no location, thus, there is no differentiation of space or time. A non-local mind is not inside someone's head; it isn't anywhere at all because it, by definition, *cannot* have a location.

Non-locality is very important for physicists. Long before non-locality was shown to be possible in Aspect's lab, Bohm, one of the many theorists involved in quantum physics, created an entire ontology to help him understand the collapse of the wave packet (Goswami, 2001, pp. 133-134, 141, 195; Weber, 1986, pp 26-49). Bohm was a big believer in hidden variables, specifically, the "implicate" and "superimplicate" orders, out of which manifest reality unfolds." An implication of Bohm's ontology is that not only is there such a thing as a quantum mind, but that at the level of non-manifest reality, where there is no space-time, where there is no possibility of differentiation between entities based on location, all is one. Thus, all minds are one.

In the nonmanifest order there is no separation in space and time. In ordinary matter this is so and it's even more so for this subtle matter which [sic] is consciousness. Therefore, if we are separate it is because we are sticking largely to the manifest world as the basic reality where the whole point is to have separate units, relatively separate anyway, but interacting. In nonmanifest reality it's all interpenetrating, interconnected, one. So we say deep down the consciousness of mankind is one. This is a virtual certainty because even in the vacuum matter is one; and if we don't see this it's because we are blinding ourselves to it. (Weber, 1986, p. 41)

Me: Are you beginning to see, the relationship between personal experience, reading beginner guides to quantum physics and Plato, Plotinus, Lau Tsu, and Heidegger?

Superego: Vaguely, but you say it.

⁵³ Dossey means here people who hold classical Western European views of reality.

Me: The winter that things changed I was forced to ask questions about who I am. I think I was forced to ask those questions because I experienced the feeling that I wasn't myself, that I had somehow lost an essential part of me.

Superego: Did you know you were asking those questions?

Me: I don't think I did.

Superego: But you started answering them, or at least searching for answers.

Me: Yes.

Superego: And what did you find?

Me: I found that I couldn't answer what seemed like a simple question as it became huge.

Superego: What do you mean?

Me: I found that asking "Who I am?" meant asking, "Who am I in this world?" and that there were three questions packed into that one. Who am I? What is this world? How do I relate to this world? I couldn't just ask one. So, I asked them all.

Superego: So, what questions does this chapter ask?

Me: I hope that it brings up the questions about the nature of the world, and also questions about how I relate to the world. I think it also hints at the possibility of deep connection between the Self and the world, specifically through the possibility of non-locality.

Superego: Do you think that Bohm is right; is there such a thing as a non-manifest reality?

Me: I have no idea. But the possibilities inherent in his theory fascinate me.

Superego: What possibility?

Me: Well, it was my advisor that summed it up the best.

Superego: What did he say?

Me: "What if," he said when I told him of the retroactive prayer experiment, "What if God is a metaphor?"

What if, we are not merely connected because we are embedded in this world, but because in some strange way, we are all a manifestation of some unity?

CHAPTER SEVEN: LANGUAGE, THE TRACK THAT RUNS THROUGH ALL TRACKS

The Interview: Part Three

Superego: So Brenda, where are we now?

Me: Well, we're near the end.

Superego: Good, so this is the final chapter?

Me: Yes, it's the one about language.

Superego: I see, what has language to do with this thesis?

Me: Well, I said early on that I was asking questions about the nature of the Self, and the nature of the world, and the relationship between the two.

Superego: Indeed you did; you've said it a few times; actually, I think you just said it at the close of the last chapter.

Me: Right, well I want to know how language shapes what is perceived to be possible.

Superego: Why would it shape what is perceived to be possible?

Me: I think Elliot Eisner (1988) said it best. I quoted him at the beginning of the thesis.

Superego: What did he say?

Me: He said:

The categories we are taught, the sources of evidence that we believe count, the language that we learn to use govern our worldview. How we come to see the world, what we think it means, and eventually what we believe we can do about that world are intimately related to the technologies of mind we have acquired. There is no such thing as a value-neutral approach to the world; language itself, whether the language of the arts or the sciences, is value-laden. To acquire a language or a set of methodological conventions without examining what they leave out as well as what they can contain, is to take the part for the whole. (p. 19)

Superego: So you are saying that the analysis of language is important in the quest to find out about who you are in this world.

Me: Yes. I am interested in the way concepts and language shape individual perceptions of the world. I am also interested in finding out what might happen if one could turn the use of language off and still consciously experience the world.

Superego: What made you think of asking questions about language?

Me: It all began with a poem, which was followed by another poem. Then came a letter and, then, another more burdensome poem. It was a lament really.

Superego: What was the first poem?

Me: It was my complaint about the inadequacy of language.

I am Missing a Connection

A conceptual connection
To a point I have a desire to make:
That words are shoddy stand-ins
For thoughts and ideas
And especially for a world
Filled with
The intimate beauty of
The particular
Within which I am immersed.

I want to say
That our words
Or our string of words
That we fashion throughout time
Keep separating things
That are together
And whilst each word,
I know,
sends out tentacles in all directions
to grab
to hold on to,
I keep thinking
That right at
The beginning
There is something wrong.

Perhaps it is because
Each word
Sits
Properly
Upon a dictionary's page
They all sit there
Wrapped up in each other
And, it would seem,
Nothing else.

Perhaps, it is
Because I can hold them
At arms length
And peer at them
Through eyes that long
Ago needed bifocals
And somehow play with them
As if they were Lego
And I a child of 10.

I can wrap them up
Disassemble them
Reassemble them
And there they remain.

And yet,
They are what I use
To talk about
This world.

And I can no more disassemble
This earth
Take the green from the water lily
The spikiness from the spruce tree
Bough
Or remove
The water from the land.

Words have become
Our illusion
Our replacement for the "what is."
We have, I think,
Forgotten
That they
Are
Not
Anything other
Than
Magical, imaginary creatures
Wrapped up in each other.

Me: When I wrote that poem I think I was just irritated by everything that I was reading about the power of language. Words can't capture what is, they really can't do justice easily to the world I experience.

Superego: What happened next?

I was staying at my friend's cabin trying to write the core of the thesis. For fun, I had picked up a collection of essays edited by Tim Lilburn, entitled *Thinking and Singing*. All of the author's were actually poets, and all of them had something to say about language. Of course, I didn't just read Lilburn's book, I was reading a lot of different things. As usual my thoughts were diverging, heading off in countless directions. I was contemplating the history of thought from Descartes to Heidegger as related by Jan Zwicky (1999/2002). I had just read an article by Janet Emig (1983), a writing process theorist, which mentioned the relationship between metaphor and schizophrenia.⁵⁴ I was immersed in Deikman (1966/1978, 1971/1978, 1996), one of the most predominant names in the consciousness research tomes I was reading. Specifically, I was reading about deautomatization⁵⁵ and contemplation. Of course, the cognitive scientists were ever present, filling my thoughts with thoughts of the unconscious and its relationship to language.

It was Jan Zwicky that got me started thinking about the problem of language with her lucid and humorous account of the progression of ideas from Descartes to Heidegger in "Once upon a time in the west." I was wondering how anyone could come up with the idea that language is all there is which is what Zwicky says Heidegger's point is. Here is a piece of her take on Heidegger:

Like I say, when Marty tells ya "Bein's poem, just begun, is man," that ain't no metaphor. He means without us, without human language, there ain't nothing—not even Nothin. (1999/2002p. 194)

Superego: So what did you figure out?

Me: Well, not much, but I did write a poem, and diagnosed the major symptom of the problem.

Superego: And that was?

Me: Why we are all stuck in our heads. Here's my poem:

⁵⁴ Apparently, a symptom of schizophrenia is the failure to understand that metaphors are actually metaphors rather than literal. A schizophrenic asked to interpret the motto "a person in a glass house shouldn't throw stones" might say something about glass breaking, failing to get the larger implications of the analogy (Emig, 1983).

⁵⁵ It is Deikman's position that people engaged in contemplative traditions of meditation etc., are actually undergoing a process in which they turn off the naming of the world process, something that seems to be done automatically.

I remember standing in the shower one day, washing off the lingering feel of the lake from my skin, when it hit me: the problem is language, not *the way* we use language, but *that* we use language.

Superego: Is that when you wrote the letter to Plato?

Me: Yes. I had this wild idea that all the back and forth questioning and answering that goes on in Plato's dialogues always seems to end with Socrates saying at least he knows nothing. What if what Socrates was really saying was that language is actually the problem.

Superego: Is that what he was saying?

Me: I've no idea, but the possibility sure got me excited. I stumbled across this quotation a while ago, and it seems to sum up what I was thinking at the time:

Human understanding uses categories and analysis. To understand a phenomenon, we superimpose a conceptual grid by which we relate it to the known, and define what must be investigated further. But the grid itself always conceals a bit of reality The more intently we look for an answer in terms of the grid, the more impossible the task becomes. In such instances the only solution is to readjust the grid, to alter the categories through which we understand the world and our experiences. Such an alteration may eventually involve a full-scale reorientation in our ways of knowing. (Kasulis, ed. in Yasuo, 1987, p. 1)

The problem is the grid. The grid comes with language, it is the concepts we impose on the world.

Superego: Was there more of what you wrote to Socrates?

Me: Yes, shall I show you the letter?

Superego: It might help.

Dear Mr. Plato and Mr. Socrates:

I write to both of you because I am never quite sure where the boundary between each of you is, or even if there is one.

I just want to say Mr. Socrates, that the letter I wrote you about being a bombastic buffoon and all...well, I was wrong. The thing is, yesterday, all day really, I was having a really difficult time trying to figure out what it was I wanted to say in this thesis. I was caught up in language. I figure the problem is there, that we keep on mistaking the conceptual schema that is used to interpret the world, for the world itself. I don't want to say that conceptual schema are not real; I want to say just that they are different from the physical world. You know, sort of like Popper's World One, World Two and World Three⁵⁶ or Plato's differentiation between the real (ideas) and the illusion (our physical world).

Anyways, I was trying to get to some understanding of the role of language in all this and wham it popped into my head that maybe, Mr. Socrates, that was what you were on about.

I have to admit Mr. Socrates I was dating this really obnoxious fellow who had to argue with me over every little thing, just because he loved arguing. Agreeing with him never worked because he would just change his position. I was reading you at the same time I dated him; and when I called you a bombastic buffoon, I might have been transferring some of my own frustration with him on to you and projecting a bunch of his traits onto you. I just want to let you know that I understand that it really wasn't fair to you. So, I'm sorry.

Here is the thing (and I address this to both you, Mr. Socrates, and to your esteemed pupil, Mr. Plato). It occurred to me that what you were doing during all those really irritating arguments was not a movement toward Truth per say, but rather, you were repeatedly showing the inadequacy of language to address Truth. I am wondering if that is what all that slippery, and extremely irritating verbal brawling I always believed you were engaged in, was all about.

I know you said that the point of your discussions with people was to show that you know nothing, Mr Socrates. Yet, somehow, I think that might be a simplification of your cleverness. Were you pointing out the basic problem of the conceptual grid inherent in the use of language? Could it have been that you know nothing because language can

⁵⁶World One: the physical world

World Two: the world of in-the-head-ideas

World Three: the theories, ideas, and other public ideas. (discussed in Bereiter, 1994).

ultimately state nothing? Could you have been saying that language, as a system of thought, can only go so far?

What I think I see now is your systematic destruction of all language-based truths. Is this why you talked to your muse as you claimed in the *Symposium*? How did you talk to your muse? Was it in words or felt meanings?

I am also wondering Mr. Plato, why you distrusted the written word?

Your seventh letter seems to be pretty explicit. You differentiate five classes of objects through which an object might be known:

For everything that exists there are three classes of objects through which knowledge about it must come; the knowledge itself is a fourth, and we must put as a fifth entity the actual object of knowledge which is the true reality. We have then, first, a name, second, a description, third, an image, and fourth, a knowledge of the object. (line 342a)

Even these four are not enough for you, are they Mr. Plato? For you, there must be the form of the object that is reached only through the dialectic. Writing is flawed, because it doesn't allow for the use of the dialectic.

But you went further, didn't you Mr. Plato, for it wasn't only written language that you critiqued in that letter, you said:

For if in the case of any of these a man does not somehow or other get hold of the first four, he will never gain a complete understanding of the fifth. Furthermore these four [names, descriptions, bodily forms, concepts] do as much to illustrate the particular quality of any object as they do to illustrate its essential reality because of the inadequacy of language. Hence no intelligent man will ever be so bold as to put into language those things which his reason has contemplated, especially not into a form that is unalterable which must be the case with what is expressed in written symbols. (Plato, 1963/1961, line 345a)

In *Spell of the Sensuous*, Abraham (1996) makes the bold suggestion that turning language into phonetic symbols somehow distanced people from their lived world. Was your distrust of the written word somehow related to that distancing? As I sit here today and ponder what language does, I am reminded of what happened to me when I tried to turn off the words in my head. I wrote about that experience earlier, in the section entitled "Alternative consciousness." It was the day I went for a walk, and somehow, everything changed in the way I perceived the world.

I've loads of questions; I wish you were here to answer them. Have we disconnected from our lived world? Did we start to mistake the word for the reality? Did we begin to stop paying attention to the spaces between the words, the phenomena behind the breath?

I am also wondering if the dialectic you describe is not about analyzing parts as it appears to me to be, but it is really designed to be like a koan, to take you to the place of knowing and thinking which knows no words:

When samadhi develops, we usually introduce a koan. A koan is a nonlogical statement, question, or anecdote, most often an exchange between master and student from the Zen literature. A koan is a means for the student to confront the self, to bypass logical, conceptual thinking. It becomes the object of concentration. This first koan can take many forms. Classically in Zen it would be: What is your original face? The face you had before your parents were born? Show it to me. Or: You know the sound of two hands clapping--what is the sound of one hand clapping? Do not talk about it--show me!

These questions are no different from: What is truth? What is reality? What is life? What is God? Who am I? They are all the same question. They deal with the ultimate nature of reality, the ground of being. (Loori, 1994, p. 11)

Might the dialectic be a way into a different type of knowing that knows no words?

Sincerely,
Brenda

Superego: My heavens didn't you have a lot of questions. I hope you don't mind my saying so, but they seem rather vague. Did you have a point?

Me: Yes, but to be honest I am not sure if I can say it. That's ironical.

Superego: Why?

Me: Well I'm trying to say something about the inadequacy of language to express what is experienced, what might be, and I'm having a hard time saying it. In other words, I'm finding language inadequate to the task. That's ironical.

Superego: Oh.

Me: But there was more to it than that.

Superego: So tell me.

Me: First there is the issue of the inadequacy of language to express anything.

Superego: Go on.

Me: Then there is the issue of alternative ways of coming to know something. What is the dialectic? Might it be like the attempt to move away from logical conceptual thinking by those who practice Zen? Could one turn off language and actually know what is to be known in another way?

Superego: Is there more?

Me: Finally, there is the question of the effect of language on our experience. Not how a given language shapes our experience, but how any language might serve to sever the connection one has with the world.

Superego: Does it?

Me: Does it what?

Superego: Does it sever the connection?

Me: I don't know. I have a vague hunch that it might, or at least it might alter the perception of the connection. Lilburn said something about it that I think is really wise.

Superego: That was?

Me:

The world is its cancellations, what we call it and the undermining of our identifications by an ungraspable residue in objects. To see it otherwise, to imagine it caught in our phrases, is to know it without courtesy, and this perhaps is not to know it at all. To see with presumption is only to note the effects of one's bright looks, the glimmering classifications, the metaphors, is merely to watch oneself confidently gazing. (1999, p. 5)

Superego: Why is that important to you?

Me: Because I want to know the world. I don't want to merely know the names for things. I want to honour the experience of this amazing world, a world that has me in it. I think we need to pay attention to the fact that sometimes language limits and distorts and minimizes the nature of experience. I want to turn off the language in my head. I want to stop playing with the signs for things, and play with the things themselves. I wrote a poem about that.

Superego: About what?

Me: About what might happen if we could just turn off the words.

What if?

What if we throw away categories
 And concepts
And begin again
 At the beginning
With what we have?

Which is self
 In a world

And even there,
Already categories
 So let me collapse it further
 And simply say
 World
 [but by this I don't want you to
 think of "out there" or
 "in here"
 or location,
 or time or...

perhaps I should begin again
 with simply
 is

 or

 Being.

There is. . .
 [and no I do not mean that we indulge
 in Descartes' radical skepticism:
 'I am, and I throw the rest away']

There, let us begin again

There is.

What if

We take away the assumptions
Which Aristotle kindly gave us
[though there are psychologists who say
that our body gives us these
categories]

And we try, instead, to define
The limitations
And the metaphors, which shape them?

Shall we begin
With Self/Other
Or Self/World
Or Mind/Brain
Brain/Body
Or

Mind/Brain/Body/Self/Other/World?

Our concepts, as Burner says,
are what allow us to understand the world.
For the whole
The simplification, is less than the sum of the parts.
[or so he says]

And,
thus,
we allow ourselves the generalization,

and,
thus,
we are not overcome with a world unsimplified,
chaotic,
OVERWHELMING.

So we categorize,
 We sort,
We label.

And with each we reach
 Another layer of abstraction,
 Another concept,

Another

word.

What is . . .

Tempted as I am to say
 What is
Is what I experience,
 In its tumble of overlapping forms

I have learned Piaget's lesson too well:
I am aware of object permanence

So, instead, I might say:
 What is . . .
 Is what I experience,
 What I might experience. . .
What I have the potential to experience

As I move through this world.

There are definite ways of experiencing,
 Of creating a reality
 In which we dance.

There are the thoughts that echo
 The waterfall the tumbles
 The waterfall of thoughts that echo and tumble

And,
 Of course,

There is You.

Shall we return again
To what is?

To the categories,
the links,
the metaphors
we impose?

I must confess,

It seems a jumble,
A continuous whole,
Across which these words

Silently move.

Until I pick up a pencil
And isolate
a concept

with a space

Of silence

To designate its separateness

From the

What is.

But was it not Whitehead who said
We commit the fallacy
Of misplacing concreteness
When we mistake
The abstraction

For the reality?

Just a few days ago,
I read
That the hallmark for schizophrenia
Is to mistake the metaphor

For the reality

Now I know

There is much to be said
For the signifier and the sign

But . . .

the word is the concept
and the concept, the abstraction
and abstractions do tend
to be metaphors

and, thus,

to mistake the abstraction for reality
is to mistake the metaphor for what is. . .

and, thus,

in our hurry to simplify
to generalize,

we all become schizophrenic.

[take heart, for the serpent has just eaten its tail.]

What is. . .

Mind/Brain/Body/World
Self / World

Burner may have said to understand is
To simplify,

But

The what is. . .
Is the whole
The complex phenomenon.

And whilst the analysis of the parts
Is available for review

To pretend the parts are the whole
Is
Also
To mistake the metaphor for the reality,
To miss the point of the whole.

And so

There are the parts:

Mind / Brain / Body / World / Body / Brain / Mind

Self // Other

And there is the WHOLE:

What is.

Superego: So language divides up the world, and as it does so it severs the connection between Self and World? Is that how this dialogue fits into your thesis?

Me: Severs the perception of the connection between Self and World, yes.

Superego: Is that it? If we could turn off words we'd all feel connected?

Me: Maybe in one way, but words are a way of being connected. I don't want to abandon language; I just want to decrease its status a little. Perhaps language is but one way of coming to know and communicate things in the world.

Superego: So is there anything about the way language gets used that needs to be challenged?

Me: I think so. I framed this thesis to be about Self in the World and the relationship between Self and the World. There is something problematic with how Self is frequently conceptualized that could stand some analysis. That's what I'm going to do next.

Confessions of Dedicated Realist

One can take many positions about the exterior world.⁵⁷ One can be a direct or an indirect realist. Either one believes that one knows the world directly, (my position, and not a popular one might I add), or that knowing the world is somehow mediated through a causal sequence in which information moves from the exterior, through a series of steps to the mind. The most common way to think of this scenario is via the computer metaphor. In this metaphor, an external object sends a signal which interacts with a receptor, perpetuating a signal within the system, and results in the occurrence of a perceptual experience (Shaw & Bransford, 1977, p. 12). What occurs in the mind is a representation of the external world. “Representationalism implies the construction of an internal (mental) model of an outer (physical) world” (Davis, 1996, p. 180).

In addition to a range of positions one might have on whether it is possible to know the world directly, one might also take a position on how much of the world might be known. One might believe that the world is experienced and known in total, or that the world is experienced and known only partially, or any combination there of. Thus, one might be a naïve realist and believe it is possible that one knows the world and everyone knows the same aspects of the world. One might also be a cynical realist and believe that it is absolutely impossible to know if one knows the world at all. Alternatively, one might believe one knows the world only partially. Or I may know everything I experience well, but just not experience everything.

Alternatively, constructivism, one of the currently in vogue epistemologies of education, has rejected completely Realism and Representationalism. “It makes little sense, it is argued, to speak of *representations* of a reality that, as even Descartes acknowledged is, unknowable and inherently inaccessible. According to Bereiter (1994), constructivism is the only real choice for an educational theorist as the statement “students construct their own knowledge” is not by itself a falsifiable claim” (p. 21).

As long as one views the mind as a container whose contents are beliefs, schemata, cognitive structures, or other cognitive objects, then any plausible explanation of how these objects get into the mind has to assume they are created there. What alternative is there, short of thought transference? The only way to reject it is by

⁵⁷ The separation between the interior, or mental, and the exterior, or physical world including one’s body, goes back at least as far as Descartes. Descartes’ conception of mind and matter as two distinct realities set up the entire premise for the philosophy of mind, as far as I can see. My point is, that interiority, and exteriority have been historically set up in opposition to each other. Mind is distinct from body and world.

rejecting the whole structure of cognitive psychological ideas built upon the mind – as – container metaphor. (Bereiter, 1994, p. 21)

In contrast to constructivism, which emphasizes the individual's process of building their own knowledge so that it fits with some social constructed norm, social constructivism emphasizes the influence of social activity on learning. Both presuppose an external world and the division between interior and the exterior:

In other words, both constructivism's monologic authority of the individual and social constructionism's dialogic authority are founded on a modernist separation of self from other. Cognizing agents are regarded as separated, not only from the world, but from one another. While interaction among agents is deemed possible, it is reduced to coordinated mechanical action whereby we can never transcend our subjectivities. (Davis, 1996, p. 189)

Thus, if one is either a constructivist or a social constructionist, one can be effectively ontologically agonistic, as for either what exists is utterly irrelevant. All that functionally exists is one's subjective experience. Ironically, both constructivism and social constructionism presuppose a physical world in which an individual interacts. Where else does the material come from to build one's constructions? However, whilst dialogue is assumed to enter into the picture, the reality, the sheer physicalness of the dialogue is in question,

So, one can be a direct realist, an indirect realist, a constructivist, or a social constructivist. One can believe one's constructions correspond to the world,⁵⁸ or that they don't. One can even claim that it doesn't matter, that what matters is how the constructions both fit with the constructions of the rest of the discourse community (Davis, 1996, p. 183) and help make sense of one's own experience.⁵⁹

⁵⁸ I am assuming that there is an "exterior" world.

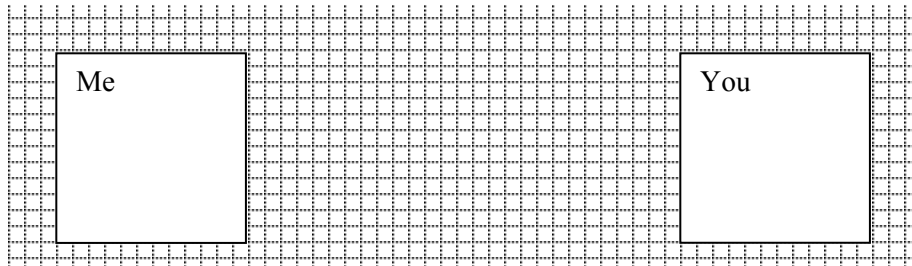
⁵⁹ I must admit to a deep sense of dramatic irony when contemplating the sheer denial of an ontological reality by the constructivist who at the same time is interested in the correspondence between the fit between a child's knowledge and the knowledge of others. Presumably, knowledge has some sort of ontological privilege that allows it to remain some form of constant to which one can make a comparison, at the same time as the rest of the external world remains unknowable, except of course, the inevitable question: what is knowledge of, if it is not of the external world? Remove the external world from the equation and all that is an infinite regress of personal self reflection.

Metaphor Madness

Each of us exists in three-dimensional space. Such a statement is common sense. There is length, width, and depth. There is of course time. We tend not to conceptualize time as another dimension of our physical being, but rather as something different. We exist in space and endure through time.

All of our knowing about the world is grounded in our experience of the physical world. Even our everyday experience of language comes to us via waves in the air, impinging on our senses either as sound or vision.

We are physical beings. We are in a three dimensional world that exists through time. Our common sense assumption about the way we each exist in the world is as bounded entities.



A three-dimensional space external to me is available for “knowing” via my senses only. Once inside me, I can act on that information, but, first it must get inside me.

As is commonly the case, I assume I have both a mind and a body. One is somehow external to me, and is available for public inspection. That would be my body. My mind, on the other hand is internal, private, and witnessable only by me, the *owner* of both my body and my mind.⁶⁰ I am this conscious mind. I am definitely not myself if I am not *this* conscious mind. I am not myself if I enter a paranoid schizophrenic episode. I am not myself if I commit murder whilst I am sleepwalking. My mother, who is the source of much of my wisdom, held firmly to her belief that she would not be held accountable for agreeing to fulfill our requests for a million dollars whilst she was asleep. I think that is a reasonable rule for accountability. I am only myself when I am awake and feeling normal.

⁶⁰ Thank you Gilbert Ryle for having written of the metaphoric construction of inner and outer way back in 1949 (1949/2000, p. 32).

There is a tendency to bound or localize the Self into the realm of consciousness. I am in here, wherever this *here* happens to be. I am definitely not *out* there.⁶¹ So I am *inside* my head, as the conscious experiencing being. Some even go further, positing an observer Self, the proverbial homunculus that lives inside one's head. Bereiter (2000) describes this as the folk theory of Self:

In folk theory, the mind is like a homunculus, or little person, who sits in the head, interpreting incoming information and issuing commands to the body. . . . The problem arises with the question, "what controls the homunculus?" The homunculus would seem to require a homunculus in its own head, and so on in infinite regression. (p. 227)

Others posit the Self as less of a static uninvolved observer and more of a creature in constant creation through story and meaning-making: "At the center of each account dwelled a protagonist Self in process of construction: whether active agent, passive experiencer, or vehicle of some ill-defined destiny"(Bruner, 1990, p. 120). Regardless of whether I hold with the modernist construction of Self as some essentialized being with some sort of transcendental, privileged status that hangs out and witnesses stuff, (Hekman, 1990, p. 65), or whether I'm more into the more post-modern turn in which I am created through my discursive practices, (Abram, 1996, p. 8), or even if I am decentred (Hekman, 1990, p. 67) and more a victim of my culture than an autonomous being, I am *in here*. I experience myself as *in here*.

Thus, I characterize my Self as the possessor and controller of my body. Even if I am still, as it were, *under construction*.

The problem arrives when we make a category mistake. If we actually assume that Self has existence like other physical entities, then it has to have a location. I am *inside* my head.

Lakoff and Johnson point out that all people are spatial metaphor crazy (Lakoff & Johnson, 1999, p. 30). The metaphor is used compulsively primarily because we have bodies and bodies exist in space. The relationships human beings experience with physical things are determined by the relationship between things in space and time. Thus, the sensorimotor experience of physical relationships is applied to subjective experiences. The result: the creation of metaphorical relationships between our subjective experiences of Self,

⁶¹ There is actually a fascinating theory of mind that posits that out there is exactly where it is. Mind exists in relation to brain in an analogous way a magnetic field relates to a electrical current. Thus mind exists outside of the body (Sheldrake, 2003).

consciousness, and mind, which are our interiors.⁶² My self is *in* my consciousness, which is *in* my mind. My mind, of course, is *in* my body, my exterior.

There is also a special set of relationships for the Self, for the Self possesses a mind and a body, both metaphorically conceptualized as things separate from the Self that the Self owns, influences and may or may not be influenced by what the Self owns, depending on your preference for modernist, or post-modernist conceptions of Self. These relationships of ownership make it difficult to figure out just where the elusive Self actually is. I can own a house which I live within, so by analogy, I can live inside my consciousness, my mind, and my body at the same time as they are my possessions. I am so conceptually bounded it is a wonder I ever go outside, what with all the layers of stuff that I own that I have to somehow get through before I am able to enter the exterior world.

Actually I don't ever go outside. I never actually go outside my head; although, sometimes, I really think I am out there, in the world, actually participating in it, perceiving it, acting on it and being embedded in it. Of course, the world comes to visit, via my senses which act with little discretion and are constantly deceiving me. It is entirely possible that even the visiting world is actually just a ruse on the part of my unconscious mind, deliberately deceiving my Self, hiding out here in my insulated cocoon.

Poor little isolated disconnected me. I am conceptually wrapped up in the insulating layers of intervening aspects of me that keep the world from paying a visit.

Now I told you a whole series of stories earlier in this thesis because I wanted you to think about your emotional connection to this Self. How important is it to you that you remain this insulated creature, possessor of that which cages you in to your isolated world? Are you the possessor of mind and body?

It is intriguing that the Buddhists say there is no Self. There are only the five aggregates (Varela et al., 1991, p. 64).⁶³ Consciousness, the fifth aggregate is said to contain

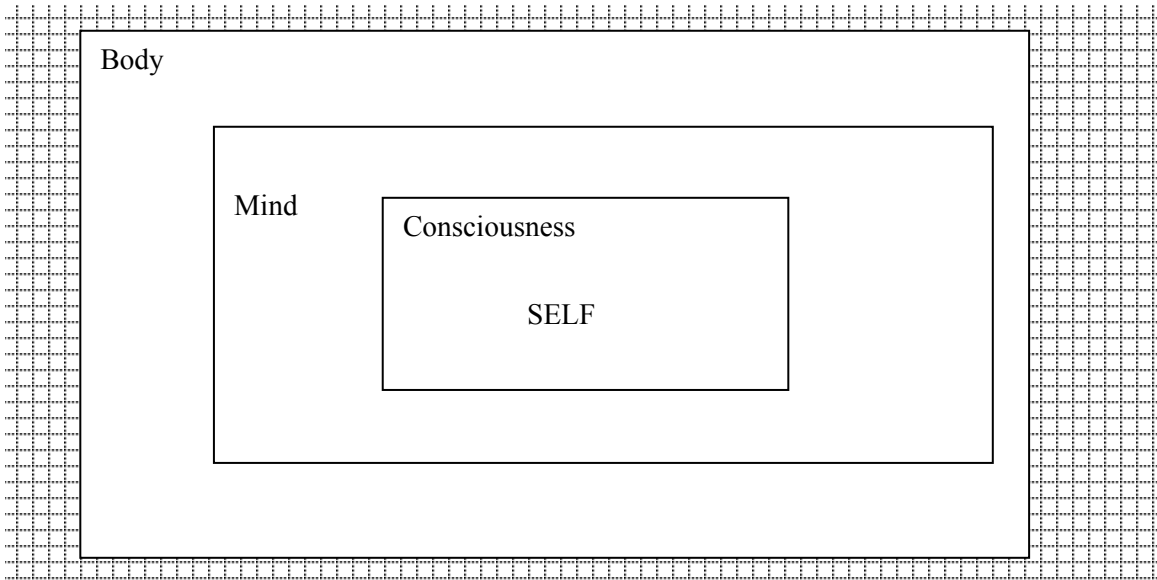
⁶² I separate mind from consciousness (though the common conception is to perceive the two as the same), though some philosophers acknowledge the role of the unconscious in the function of mind. The acknowledgement is either due to the deep dark undercurrents of our subliminal urges that are given to us through psychoanalytic theory, or simply the acknowledgement of the cognitive unconscious at work in the mind (Velmans, 2000, p. 7).

⁶³ The five aggregates are:

- “forms” which refer to the “six sense organs and the objects of those organs. . . .” Eyes are matched with ears, and ears with sounds. The mind is the sixth sense and it senses thoughts.
- “feelings/sensations”, which refer to the emotional content of experiences.
- “perceptions/impulses” which refer to the “first moment of recognition, identification, or discernment in the arising of something distinct, coupled with the basic impulse for action toward the discerned object.”

the other four. Is not that an interesting shift in the metaphor? Consciousness, not the body, is the container

But the Western mindset is not a Buddhist mindset. The Western paradigm is that in which I am immersed. I am accustomed to being a Self that possesses a mind that is localized within my body.

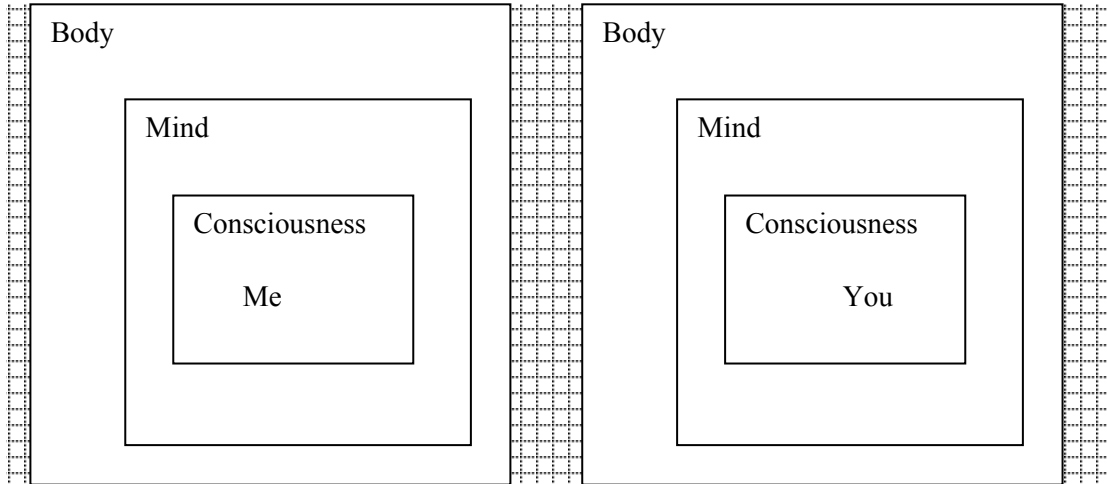


Body is assumed to provide the physical instantiation of my being and thus provides the boundaries within which I exist. Mind gets located within these bounds. Consciousness is further isolated within my mind as I acknowledge both that I have a drove of unconscious libidinous drives which shape my behaviour, and that my mind directs my attention and thus determines what I sense and shapes my interpretation of what I sense, “presenting” to my conscious awareness a perception as opposed to a sensory input only. Self, the grand possessor of consciousness, mind, and body is residing in consciousness, a house of its very own.

So there I sit in my house, and there you sit in yours. The grand conceptual fraud is about to take place. Once mind and consciousness become localized conceptually, via the use of a physical location metaphor, then at once the set up for the problem of how one can know about the world is in place.

-
- “dispositional formations” which refer to “habitual patterns of thinking, feeling, perceiving, and acting” habitual patterns such as confidence, avarice, laziness, worry, etc.”
 - “Consciousnesses” which contain all the other aggregates (Varela et al., 1991, pp. 64-67).

For want of words not loaded with philosophical implications, I call this the “me in here, you out there” phenomenon. Will either of us ever be able to come out and play?



Here we sit, or rather here I sit, and over there, I hope, you sit. I have no way of knowing if you actually are over there in that other house, because I don't know if I can trust the information relayed to me by this body that I possess. Each of us is locked away in our separated, isolated consciousness. We are shaped by our minds; we are shaped by our bodies; and we are able to interact with the world, if there is a world, only if our bodies and our minds relay accurate information to us. We are ultimately isolated, disconnected, and busily theorizing that maybe there is a world out there, and maybe there isn't. It is too bad we can't trust our bodies and our minds to tell us the truth.

I've spent some time staring at these metaphors of ownership and the way the boundaries placed around the concepts of Self, consciousness, mind, the unconscious, and finally body, demarcate these aspects of each of us as somehow separate entities that interact only at their boundaries. I confess. I just don't buy any of it. I am me all the way to my fingertips. I don't possess my body. I am my body, my mind, and everything else. My body is not out to get me, it is not in the business of fooling me, not because I can't be fooled, but because my body *is* me. I'd just be fooling myself, which implies that I'm in the know even about the deepest darkest conspiracies. There is some part of me that knows and I might as well just trust that it knows.

There, I confess, I am a realist. I probably will always be one. I won't deny that language shapes what I perceive. In fact, as I've discussed before, I think language is one of the big problematics of our time. Nor will I deny that as I am a sensing being, I am selective about what I choose to perceive, that my senses are fallible, or that I don't receive all the information to everything that is out there. I won't pretend I have access to all that you are, not on the grounds of metaphor anyway. For that one needs quantum physics.

EPILOGUE

1. The Interview

Superego: Excuse me Brenda, what on earth are you on about?

Me: Ok, here's the final piece of the puzzle. I said that to ask the question of "Who am I in the world?" I really needed to examine three questions.

Superego: Right, you've said that before.

Me: So I ask the question of "Who is this Self?" and I've just come to the conclusion that I am me right up to the boundary around my body. I do not possess my mind. Nor do I possess my body. I am a whole first.

Superego: What do you mean?

Me: I mean that while I talk about possessing a whole variety of things, like mind, brain, body, and consciousness, what I really mean is that each of these "things" are different aspects of the whole that I refer to as me. I am a very complicated creature. Each of these words allows me to speak of different aspects of myself. I speak of those aspects as things that I possess; but, that possession is metaphorical only. I do not possess these things, I am these things.

Superego: Okay.

Me: But to answer the other two questions I still need to know about the nature of the world.

Superego: I agree.

Me: If the world is really just this particulate world to which the theories of classical mechanics apply, then my conception of the interaction between my Self and the World can only be that I know the world through my senses.

Superego: I hear a "but" coming.

Me: Yes. But if the world is different than what is assumed in classical theory, if say Bohm, Plotinus, Dossey, or Plato is right, then there is the chance that I might know the world in ways other than through my senses. Perhaps there are multiple ways to know the world, each with its own perspective on the multiple things to know about the world. Perhaps I might know the world through language and my senses, but also through Deikman's (1971/1978, 1996) receptive mode of consciousness. Perhaps, if there is an essential unity, a

non-manifest reality, I might also know the world through my connection to that nonmanifest and undifferentiated reality.

Superego: Is that what you meant by needing quantum physics?

Me: Yes. Understanding that I am me all the way to my fingertips takes me to an understanding that I am directly aware of the world that is external to me. However, it leaves what is external to me only partially available to me if I perceive myself as completely separate from the rest of reality. That perception is grounded in the ontology I hold. But those pesky photons that seem to know what's happening to each other over a distance, they point the way to an ontology, an idea about the nature of reality that allows for non-locality. Conceptualizing the nature of reality as having an aspect of non-locality opens up possible epistemologies (theories about how one knows about the world) that might allow for someone to know about others more completely. That's what I mean by needing quantum physics to speak about a more complete access to who you are.

Superego: How does non-locality make other epistemologies possible?

Me: The non-locality that is postulated by the findings of quantum physics to explain the behaviour of photons is a theory about the nature of reality. Theoretically, non-locality is not something that just applies to photons. Photons are non-local because the reality in which they are embedded is non-local. As all things are embedded in the same non-local reality, then the interconnection witnessed among the photons would apply to all things. If that is the case, then all entities would be deeply interconnected because the nature of reality makes it so.

Superego: So what has that to do with epistemology?

Me: You have to understand that this is a dramatic re-conceptualization of reality. It is drastically different from the conception of reality grounded in the classical physics of Newton. The basic tenet of classical physics is that all things are separated in time and space. Messages can travel between those entities but that is the only way in which they can communicate. In physics, these basic tenets are referred to as the assumptions of locality (Malin, 2001, p. 1). Reality is assumed to be local. The assumption of separation is fundamental to epistemologies that posit that I can know information about my external world because I receive information through my senses.

Superego: So what are you saying? We're not actually separated in space and time?

Me: Well, that is what the theory of non-locality suggests. But remember, everything in quantum physics is paradoxical. No one denies that each of us experiences the world as

local. What theories of non-locality do suggest is that there is an aspect of reality that is local, and an aspect of reality that is non-local.

Superego: I'm still not clear on how that gets me to epistemology.

Me: Non-locality challenges the assumption that everything is separate, positing that reality has an aspect in which there is no differentiation in space and, thus, in time. Where there is no differentiation in space and time, there is no need to send off a signal to send a message to your neighbour, nor is there any need of the senses to receive the signal. Communication is not necessary because everything is deeply interconnected. As Bohm said, "in nonmanifest [non-local] reality it's all interpenetrating, interconnected, one. So we say deep down the consciousness of mankind is one" (cited in Weber, 1986, p. 41).

Superego: So, the ontology one holds, grounds what epistemology one perceives as possible.

Me: I'm sure I said that somewhere.

Superego: You did. But what has any of this to do with hope?

Me: Good question. Let me take you back to Eisner (1988) on page one.

Superego: I remember, he said:

The categories we are taught, the sources of evidence that we believe count, the language that we learn to use govern our world view. **How we come to see the world, what we think it means, and eventually what we believe we can do about that world are intimately related to the technologies of mind we have acquired** [emphasis mine]. (p. 19)

Me: I think the assumptions that get passed on in our culture, assumptions about the nature of Self as isolated and disconnected from the world, and assumptions about the world as part of a fragmentable, particulate universe; I think these assumptions kill hope.

I think that to have hope that one might be able to change the world, one has to believe that one has the power to change the world. One must believe not only that one can know that world, and that what one knows of the world is valid, one must believe that one's actions can impact the world. For me the answer to the despair I see in my students' eyes as they tell me they are helpless to change the world is to help them understand how deeply interconnected they are. I want them to understand the possibilities they have for knowing the world and for being known by others. I want them to understand the basic tenet that all actions change the world, because all actions are part of the world. Despair grows from a sense of powerlessness that is rooted in isolation and disconnection from the world.

Superego: And hope?

Me: Hope springs from a belief in one's power and one's place in the world. But it is not quite as simple as that. One's power comes from apprehending one's identity. This apprehension is not only knowledge of what one is and how one is interconnected to reality, it also includes how one engages, for to apprehend is to know by being engaged. It is an engagement that allows one to discern purpose and meaning. One can engage because one is connected. Hope, therefore, springs from the power of one's knowledge and engagement with "what is."

2. *The Story*

They had arrived when she woke up in the morning, fully formed characters: grandfather and the little girl. He was reading this thesis out loud. She was lying in her bed. It was night, the sky bright with stars.

He was sitting in a chair by the bed. The child was quiet. It was the end of their day together. They had spent it dropping pebbles, and then large rocks, into a pond and watching the ripples explode from the center.

They were there, in front of her now. Grandfather quietly reading; the child, her eyes closed, listening. She could hear Grandfather's gentle murmur; feel the breeze on her face. "Ah," she thought, "the window must be open." And then, as if in answer to her thoughts, Grandfather stopped reading and wandered over to the window.

"How does it end?" the little girl asked.

"How does what end?"

"The thesis. How does it end?"

"That's it, its over."

"It can't just end there," she said, climbing out of bed to come stand by him.

"Why not?"

"Because there aren't any answers."

"Of course there are answers. There are answers all the way through it."

"No, that's not what I mean."

"What do you mean?"

"Well, she keeps on asking questions, every answer just takes you to more questions. Now I don't know anything. I'm just like Socrates."

"Sure you do."

“What, what do I know?”

“How about that you are part of something very, very complicated?”

“Okay.”

“How about that there are multiple ways of thinking about who you are in the world?”

“Sure, but which one is right? Which one is True?”

“I don’t know.”

“Does she?”

“No.”

“But what does she believe? She can’t just believe there is no truth, not after all she’s said about being a direct realist and talking about connection and hope.”

“Ah, I see, so you’re worried that she’s just going to say everything is relative?”

“Well, isn’t she?”

“No.”

“Then she must believe there is a truth.”

“Indeed, she does. She just wants to embrace the possibility that she might not know it, at least, not completely.”

“But what does she think it is?”

“The truth?”

“Yes, grandfather, the truth.”

“Why does it matter to you?”

“Because her big question is about Who I am in the world.”

“And?”

“How I think about who I am in the world, determines how I am going to interact with it.”

“True, but there is more to it than that.”

“What do you mean?”

“When you phrase it that way, as how you think about yourself in the world, you put priority on your own subjective experience. From that perspective, which is admittedly, the perspective from which she began, then how you think about yourself in relationship to the world, is really just a matter of picking a relationship and believing in it. That’s what gets you to relativism, which is something she finds problematic. Who knows what’s right? Maybe you’re connected, maybe you’re not.”

“Is there an alternative?”

“Indeed, there is.”

“Well, don’t keep me waiting, grandfather, you’re beginning to irritate me.”

“The alternative is by giving priority to the engagement you have with the world.”

“What on earth do you mean?”

“How do you get to know about the world?”

“By engaging with it.”

“Precisely.”

“But in the beginning, she said that to answer the three questions she needed to ask three questions: Who is this Self? What is the World? And how, do they interrelate? She said you had to have answers for the first two in order to answer the third.

“Yes, she did. But then, one of her advisors wrote in the margin of her text something, didn’t you see it?”

“No. What was it?”

“It said something like, “how can you find out about Self, or the World, without engaging with the world?”

“It’s a circle?”

“Yes, it’s a circle. Tell me what you think it means.”

“What I know about who I am, what I know about the World, comes because I engage in the world. I can’t answer those questions about Self or World without engagement. I have to be connected. Don’t I?”

“Yes, indeed, you have to be connected.”

“If I were disconnected, I wouldn’t know World at all.”

“No, you wouldn’t.”

“The only way to have knowledge about all three questions is to be connected. If I wasn’t connected, then I wouldn’t know the World. If I didn’t know the World, then I wouldn’t know there was a possibility of a relationship between us.”

“Almost, yes.”

“Why do you say almost?”

“Because she doesn’t think you can know all the world. She wants the world to remain mysterious.”

“Why?”

“Because it is mystery that draws her forward. It is mystery that she wants to embrace.”

“Is that why she spent so much time on language?”

“What do you mean?”

“Well, I think because she was trying to say that language closes off the mystery.”

“I think you’re right. At least, you’re partly right.”

“There’s more?”

“Yes, there was that niggling suspicion on her part, that there might be a way to know the world more completely than she knows it now. What if there is a truth, and there is a way to know about it, but there is no way to talk about it?”

“Why couldn’t you talk about it?”

“Perhaps because language imposes a structure on existence. To know the truth, you would have to be able to turn off the structure you impose and experience the structure that is, whatever it is.”

“You mean that for me to know what is would require that I never impose an interpretive frame on it.”

“Hmm.”

“I would just have to know it as it is, as best I could, without trying to frame it into the categories I give it. I couldn’t do that if I was constantly talking, could I?”

“No, you’d have to be silent for awhile. You might want to try it sometime.”

“Oh. You mean, like now.”

“Yes, like now.”

So they were silent for a while.

The girl, however, was unable to turn off the words in her head for very long and so she interrupted his contemplation one more time.

“So does it just end there?”

“No, there’s still more, you won’t believe it, but we’re it.”

“Of course, we’re it. We’ve been it since she began the story.”

“No, I mean, there’s something about us in particular that she wants to say.”

“What?”

“That’s harder to say.”

He didn’t speak for quite some time. She stared out the window at the stars, and tried to turn the words off in her head. It almost worked, and then he interrupted her state of intense concentration.

“I think it’s because it’s a cautionary tale.”

“It’s a warning?”

“Yes, I think that’s it.”

“So how is it a warning?”

“You and me,” he said smiling, “are the warning.”

“What? That makes no sense.”

“No, I don’t suppose it does.”

There was a big pause then, as they both stared out at the sky.

“Do you see those stars out there?” he asked. “How do you get there?”

“I don’t know.”

“Indeed, I think you do.”

“How then?”

“With the questions.”

“The questions?”

“It is only with questions that you can open up a world of possibility.”

“But aren’t answers important?”

“Yes, but only if they open up more questions. Do you remember what I said, early on?”

“Vary your vision of the track?”

“Indeed, it is the questions you ask that let you stay conscious of the worlds beyond. If you pose an answer that keeps your eyes only on the track, you miss the mystery.”

“And eternity?”

“Yes, child, if you miss the mystery, you miss eternity.”

That morning, I walked out of my house, and, as I always do, I looked up to the sky. It was a bright, fresh winter day, and that sky was crystal clear. It was a beautiful day. I could still see grandfather confidently gazing into the night sky; could hear that child’s questions; recognized them as my own. I knew, somehow in my belly, that the world would open up that morning. The whole thesis is all about possibility really, that and being brave enough to ask the questions, track their answers and stay aware of the worlds beyond.

3. *The Poem*

Last night I walked home
In the cold,
In my big, thick, winter boots,

And at my doorway, I noticed
My tracks.

I left them there,
At the beginning of my journey.

If you follow them
You will see
Where I stopped,
And turned,
And looked up to see
The stars.

If you vary your vision of
My track,

You will get to know the world
In which
and
to which
I am connected,

Not only because
You are connected
To me
By this track
But because you, too, are immersed in the rings,
laid out by everything else,
in which this track lies.

REFERENCES

- Abram, D. (1996). *The spell of the sensuous: Perception and language in a more-than-human world*. New York: Vintage Books.
- Alba, A. d., Gonzalez-Gaudio, E., Lankshear, C., & Peters, M. (Eds.). (2000). *Curriculum in the postmodern condition*. New York: Peter Lang Publishing Inc.
- Anderson, R. (2001). Embodied writing and reflections on embodiment. *The Journal of Transpersonal Psychology*, 33(2), 83-98.
- Aspect, A. (2000). Testing Bell's inequalities. In J. Ellis & D. Amati (Eds.), *Quantum reflections* (pp. 69-79). Cambridge: Cambridge University Press.
- Astronomy161. (n.d.). Newton's three laws of motion. Retrieved Nov. 27, 2004, from the University of Tennessee, Department of Physics, Astronomy 161: The Solar System: <http://csep10.phys.utk.edu/astr161/lect/history/newton3laws.html>
- Bereiter, C. (1994). Constructivism, socioculturalism, and Popper's world 3. *Educational Researcher*, 23(7), 21-23.
- Bereiter, C. (2000). Keeping the brain in mind. *Australian Journal of Education*, 44(3), p. 226-238.
- Brown, T. J. (1999). *The science and art of tracking*. New York: Berkley Books.
- Bruner, J. (1990). *Acts of meaning*. Cambridge, MA: Harvard University Press.
- Capra, F. (1996). *The web of life*. New York: Anchor Books.
- Catholic-pages.com. (2004). Canonization process. Retrieved Dec. 27, 2004, from <http://www.catholic-pages.com/saints/process.asp>
- Cooney, B. (Ed.). (2000). *The place of mind*. Scarborough, ON: Wadsworth/Thomson Learning.
- Corrigan, K. (in press). *Reading Plotinus: A practical introduction to neoplatonism*.
- d'Aquili, E. G., & Newberg, A. B. (1999). *The mystical mind: Probing the biology of religious experience*. Minneapolis, MN: Fortress Press.
- Davis, B. (1996). *Teaching mathematics: Toward a sound alternative*. New York: Garland Publishing, Inc.
- Davis, B., Sumara, D., & Luce-Kapler, R. (2000). *Engaging minds: Learning and teaching in a complex world*. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Deikman, A. J. (1966/1978). Deautomatization and the mystic experience. In R. E. Ornstein (Ed.), *The nature of human consciousness: A book of readings* (pp. 216-233). New York: W. H. Freeman and Company.

- Deikman, A. J. (1971/1978). Bimodal consciousness. In R. E. Ornstein (Ed.), *The nature of human consciousness: A book of readings*. New York: W. H. Freeman and Company.
- Deikman, A. J. (1996). Intention, self, and spiritual experience: A functional model of consciousness. In S. R. Hameroff, A. W. Kaszniak & A. C. Scott (Eds.), *Towards a science of consciousness: The first Tucson discussions and debates*. Cambridge, MA: The MIT Press.
- Dewey, J. (1934). *Art as experience*. New York: Minton, Balch & Company.
- Eisner, E. W. (1988). The primacy of experience and the politics of method. *Educational Researcher*, 17, 15-20.
- Emig, J. (1983). *The web of meaning: Essays on writing, teaching, learning and thinking*. Upper Montclair, NJ: Boynton/Cook Publishers, Inc.
- Ferrer, J. N. (2000). The perennial philosophy revisited. *The Journal of Transpersonal Psychology*, 32(1), 7-30.
- Gadamer, H.-G. (1975). *Truth and method* (G. Barden & J. Cumming, Trans.). New York: Seabury Press.
- Gardner, H. (2001). Creators: Multiple intelligences. In K. H. Pfenninger & V. R. Shubik (Eds.), *The origins of creativity*. New York: Oxford University Press.
- Goleman, D., Smith, H., & Dass, R. (1985). Truth and transformation in psychological and spiritual paths. *Journal of Transpersonal Psychology*, 17(2), 183-214.
- Goswami, A. (2001). *The physicists' view of nature: Part 2: The quantum revolution*. New York: Kluwer Academic/Plenum Publishers.
- Hameroff, S. R., Kaszniak, A. W., & Scott, A. C. (Eds.). (1996). *Towards a science of consciousness: The first Tucson discussions and debates*. Cambridge, MA: The MIT Press.
- Hanh, T. N. (1975). *The miracle of mindfulness*. New York: Oxford University Press.
- Heidegger. (1966). *Discourse on thinking* (J. M. Anderson & E. H. Freund, Trans.). New York: Harper and Row.
- Heidegger, M. (2000). *Introduction to metaphysics* (G. F. R. Polt, Trans.). New Haven, CT: Yale University Press.
- Hekman, S. J. (1990). *Gender and knowledge: Elements of a postmodern feminism*. Boston: Northeastern University Press.
- Henninger, P. (1996). Inkblot testing of commissurotomy subjects: Contrasting modes of organizing reality. In S. Hameroff, A. Kaszniak & A. Scott (Eds.), *Toward a*

- science of consciousness: The first Tucson discussions and debates*. Cambridge, MA: The MIT Press.
- Holt, J. (2003). *Blindsight and the nature of human consciousness*. Peterborough, ON: Broadview Press.
- Hunt, H. T. (1995). *On the nature of consciousness: Cognitive, phenomenological and transpersonal perspectives*. New Haven, CT: Yale University Press.
- Jaynes, J. (1976). *The origin of consciousness in the breakdown of the bicameral mind*. Boston: Houghton Mifflin Company.
- Journal of Transpersonal Psychology (1969-2003).
- Jungerman, J. A. (2000). *World in process: Creativity and interconnection in the new physics*. New York: State University of New York Press.
- Karcher, S. (1997). *How to use the I Ching: A guide to working with the oracle of change*. Rockport, MA: Element Books Ltd.
- Kawagley, A. O., & Barnhardt, R. (1999). Education indigenous to place: Western science meets native reality. In G. Smith & D. Williams (Eds.), *Ecological education in action: On weaving education, culture and the environment* (pp. 117-141). New York: State University of New York Press.
- Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to western thought*. New York: Basic Books.
- Leibovici, L. (2001). Effects of remote, retroactive intercessory prayer on outcomes in patients with bloodstream infection: Randomised controlled trial. [electronic version]. *BMJ*, 323, 1450-1451.
- Lilburn, T. (1999). How to be here? In *Living in the world as if it were home: Essays*. Dunvegan, Ont.: Cormorant Books.
- Loori, J. D. (1994). In K. Tanahashi & T. D. Schneider (Eds.), *Essential Zen*. Edison, NJ: Castle Books.
- Makins, M., & al., e. (Eds.). (1991). *Collins English dictionary* (Third ed.). Aylesbury, England: HarperCollins Publishers.
- Malin, S. (2001). *Nature loves to hide: Quantum physics and the nature of reality, a western perspective*. Toronto, ON: Oxford University Press, Inc.
- Mark, V. (1996). Conflicting communicative behaviour in a split-brain patient: Support for dual consciousness. In S. Hameroff, A. Kaszniak & A. Scott (Eds.), *Towards a science of consciousness: The first Tucson discussions and debates*. Cambridge, MA: The MIT Press.

- McKay, D. (2001). The bushtit's nest. In T. Lilburn (Ed.), *Thinking and singing: Poetry and the practice of philosophy*. Toronto, ON: Cormorant Books Inc. (Reprinted from *Vis à Vis* by Don McKay, 2001, Wolfville, NS: Gaspereau Press).
- MIRG: Vancouver Hospital and Health Sciences Centre's *Medical Imaging Research Group*. (n.d.). Introduction to SPECT. Retrieved Dec. 28, 2004, from <http://www.physics.ubc.ca/~mirg/home/tutorial/intro.html>
- Olshansky, B., & Dossey, L. (2003). Retroactive prayer: A preposterous hypothesis? [electronic version]. *BMJ*, 327(7429), 1465-1468.
- Ornstein, R. (1997). *The right mind: Making sense of the hemispheres*. New York: Harcourt Brace and Company.
- Ornstein, R. E. (Ed.). (1978). *The nature of human consciousness: A book of readings*. New York: W. H. Freeman and Company.
- Plato (1963/1961). Republic (L. Cooper & P. Shorey, Trans.). In E. Hamilton & H. Cairns (Eds.), *The collected dialogues of Plato, including the letters* (2nd printing, pp. 575-844). Princeton, N. J.: Princeton University Press.
- Plato (1963/1961). Seventh letter (L. Cooper & P. Shorey, Trans.). In E. Hamilton & H. Cairns (Eds.), *The collected dialogues of Plato including the letters* (2nd printing, pp. 1574-1598). Princeton, N.J.: Princeton University Press.
- Polanyi, M. (1966). *The tacit dimension*. New York: Doubleday and Co. Inc.
- Ratey, J. J. (2001). *A user's guide to the brain*. New York: Vintage Books.
- Robers, T. B. (1989). Multistate education: Metacognitive implications of the mind-body psychotechnologies. *The Journal of Transpersonal Psychology*, 21(1), 83-102.
- Ross, R. (1992). *Dancing with a ghost*. Markham, ON: Reed Books Canada.
- Ryle, G. (1949/2000). Descartes' myth. In B. Cooney (Ed.), *The place of mind*. Scarborough, Ontario: Wadsworth/Thomson Learning.
- Shaw, R., & Bransford, J. (Eds.). (1977). *Perceiving, acting, and knowing: Toward an ecological psychology*. Toronto, ON: Lawrence Erlbaum Associates.
- Shear, J. (1990). *The inner dimension: Philosophy and the experience of consciousness*. New York: Peter Lang.
- Sheldrake, R. (2003). *The sense of being stared at and other aspects of the extended mind*. New York: Crown Publishers.
- Shepard, S. (1977/1995). Language, visualization and the inner library. In W. B. Worthen (Ed.), *Modern drama: Plays / criticism / theory*. Toronto, ON: Harcourt Brace

- College Publishers (from "American dreams: The imagination of Sam Shepard, B. Marranca, Ed., 1981, New York : Performing Arts Journal Publications.)
- Sicher, F., Targ, E., Moore, D., & Smith, H. (1998). A randomized double blind study of the effect of distant healing in a population with advanced aids - report of a small scale study. *Western Journal of Medicine*, 169(6), 356-363.
- Smith, F. (1990). *To think*. New York: Teachers College Press.
- Thornett, A. M., Hettiaratchy, S., Hemsley, C., Hopkins, J., Brownutt, M., Price, C., et al. (2002). Effect of retroactive intercessory prayer [electronic version]. *BMJ*, 324(7344), 1037.
- Twiss, S. B., & Conser, W. H. J. (Eds.). (1992). *Experiences of the sacred: Readings in the phenomenology of religion*. Hanover, NH: Brown University Press.
- Usatynski, T. J. (2001). Hidden assumptions of modern western contemplative cultures. *The Journal of Transpersonal Psychology*, 33(2), 131-149.
- Varela, F. J., Thompson, E., & Rosch, E. (1991). *The embodied mind: Cognitive science and human experience*. Cambridge, MA: The MIT Press.
- Velmans, M. (2000). *Understanding consciousness*. Philadelphia, PA: Routledge.
- Waldron, J. L. (1998). The life impact of transcendent experiences with a pronounced quality of *noesis*. *The Journal of Transpersonal Psychology*, 30(2), 103-132.
- Watson, R. I. (1963). *The great psychologists: From Aristotle to Freud*. Philadelphia, PA: J. B. Lippincott Company.
- Weber, R. (1986). *Dialogues with scientists and sages: The search for unity*. New York: Routledge and Kegan Paul.
- Weschler, L. (1995). *Mr. Wilson's cabinet of wonder: Pronged ants, horned humans, mice on toast, & other marvels of Jurassic technology*. Toronto, ON: Random House of Canada Ltd.
- Whitehead, A. N. (1938). *Modes of thought*. Cambridge, MA: Cambridge at the University Press.
- Whitfill, B. (2002). Interview with Dr. Larry Dossey: Recovering the soul [electronic version]. *Body Mind Spirit Magazine*, 8.
- Wilber, K. (1995). An informal overview of transpersonal studies. *The Journal of Transpersonal Psychology*, 27(2).
- Wilber, K. (1998). *The essential Ken Wilber: An introductory reader*. Boston, MA: Shambhala Publications. (Reprinted from *Eye to eye: The quest for the new*

- paradigm*, 3rd ed. pp. 153-154, by K. Wilber, 1983/1996, Boston: Shambhala Publications.).
- Wilber, K. (Ed.). (2001). *Quantum questions: Mystical writings of the world's greatest physicists*. Boston, MA: Shambhala.
- Wolf, F. A. (1989). *Taking the quantum leap: The new physics for non-scientists*. Toronto, ON: Harper and Roe, Publishers, Inc.
- Wudka, J. (1998, 9/24/1998). What is Ockham's razor? Retrieved Dec. 30, 2004, from the University of California, Riverside, Department of Physics, Physics 7 lecture notes: http://phyun5.ucr.edu/~wudka/Physics7/Notes_www/node10.html#SECTION02125000000000000000
- Yasuo, Y. (1987). *The body: Toward an eastern mind-body theory* (N. Shigenori & T. P. Kasulis, Trans.). Albany, NY: State University of New York Press.
- Zwicky, J. (1999/2002). Once upon a time in the west: Heidegger and the poets. In T. Lilburn (Ed.), *Thinking and singing*. Toronto, ON: Cormorant Books Inc.